

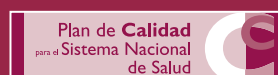
Clinical Practice Guideline for the Prevention and Treatment of Suicidal Behaviour

The CPG was revised in September 2020.

The review concluded that the recommendations and other relevant clinical content continue to be valid. The procedure for the revision of the CPG can be consulted at: <https://bit.ly/2ZEyBJx>

It is planned to assess the need to update the CPG 5 years after the last revision.

CLINICAL PRACTICE GUIDELINES IN THE NHS
MINISTRY OF HEALTH, SOCIAL SERVICES AND EQUALITY



Clinical Practice Guideline for the Prevention and Treatment of Suicidal Behaviour

CLINICAL PRACTICE GUIDELINES IN THE NHS
MINISTRY OF HEALTH, SOCIAL SERVICES AND EQUALITY



This CPG is an aid to decision making in health care. It is not mandatory nor does it replace the clinical judgment of healthcare professionals.

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Background

Initiatives to document the variability of clinical practice, analyse its causes and adopt strategies to eliminate it have led to significant improvements in professional practice and quality. One of the most important of these strategies is the development of Clinical Practice Guidelines (CPG), a set of key recommendations based on a thorough systematic review of relevant scientific studies, for the purpose of responding to uncertainties in clinical practice.

The 2010 National Health Service (SNS) Quality Plan was compiled in response to the challenges facing the SNS: increasing the cohesion of the system, ensuring fairness in public health care, regardless of where this takes place, and ensuring that it is of the highest quality. Its objectives include the promotion of the development and use of CPGs linked to Health Strategies, thereby consolidating and extending the GuíaSaludProject.

The SNS Inter-territorial Council approved the GuíaSalud Project in 2003, with the ultimate goal of improving quality in evidence-based clinical decision making, by setting up a system of training activities and a CPG register in the SNS which are freely accessible via the Internet. It is within this context that this CPG for Prevention and Treatment of Suicidal Behaviour was prepared.

Suicide is a serious public health problem, with about one million deaths annually worldwide, and is the 10th leading cause of death in Europe. In Spain, 9 people commit suicide every day, which has a great emotional, social and economic impact within the environment of the deceased.

It is therefore of great importance to adopt measures and develop strategies aimed at reducing suicidal behaviour, as outlined in the SNS Mental Health Strategy. This includes suicide prevention and the evaluation of specific actions among its objectives to decrease the suicide rate in risk groups.

The purpose of this CPG is to reduce the variability of clinical practice in the management of suicidal behaviour, thus assisting the decision making by healthcare professionals involved and promoting improved health and quality of life in the population.

It also aims to improve information for patients and families by ensuring their participation in decision-making, and to improve information for all citizens so as to reduce the stigma associated with this health problem.

This guide is the result of the hard work done by experts in methodology and health professionals from different clinical areas related to the management of suicidal behaviour, in both Primary Care and Specialty Care. The Quality Agency would like to thank all those for the work performed and congratulate them on this CPG which we hope will improve the treatment and care given to these patients.

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Association for Research, Intervention and Prevention of Suicide (AIPIS).

Spanish Association of Neuropsychiatry (AEN).

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National Association of Mental Health Nursing (ANESM).

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Spanish Society of Psychogeriatrics (SEPG).

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Spanish Society of Biological Psychiatry (SEPBB).

Spanish Society of Legal Psychiatry (SEPL).

Declaration of interest: All members of the Working Group, as well as those who participated in the expert collaboration and external review, made the declaration of interest appearing in Annex 5.

Questions to be answered

I. EVALUATION AND TREATMENT

RISK FACTORS ASSOCIATED WITH SUICIDAL BEHAVIOUR AND SUICIDE RISK ASSESSMENT

1. What are the major risk factors associated with suicidal behaviour?
2. What factors may act as precipitants of suicidal behaviour and what are the protective factors?
3. What is the role of the clinical interview in suicide risk assessment?
4. Are there any psychometric tools to predict the risk of future episodes of suicidal behaviour?

ASSESSMENT AND MANAGEMENT OF SUICIDAL IDEATION AND BEHAVIOUR IN PRIMARY CARE

5. What is the approach to suicidal ideation in primary care?
6. How is a suicidal behaviour assessment performed in primary care?
7. When is a patient with suicidal ideation or a suicide attempt referred from primary care to another care level?

ASSESSING AND MANAGING PATIENTS WITH SUICIDAL BEHAVIOUR IN THE EMERGENCY DEPARTMENT

8. How is the level of risk stratified for patients attending the emergency department for suicidal behaviour?
9. What other aspects, apart from the physical, should be assessed in patients attending the emergency department for suicidal behaviour in order to make immediate decisions?
10. What training should emergency department physicians receive in the recognition, assessment and management of individuals with suicidal behaviour?
11. What are the psychiatric hospitalisation criteria for a patient with suicidal behaviour?

TREATMENT OF SUICIDAL BEHAVIOUR IN SPECIALIST CARE (MENTAL HEALTH)

12. Are there any psychotherapeutic techniques indicated for treating a patient with suicidal behaviour?
13. Are there any effective drugs in the treatment of suicidal behaviour?
14. What is the efficacy and safety of electroconvulsive therapy in the treatment of suicidal behaviour?

II. PREVENTION

GENERAL MEASURES TO PREVENT SUICIDAL BEHAVIOUR

International suicidal behaviour prevention programmes

15. What suicidal behaviour prevention programmes can be found internationally?

Enhancing protective factors and resilience

16. What clinical interventions are effective in the prevention of suicidal behaviour by enhancing protective factors and resilience?

Restricting access to methods for suicide

17. What measures can be taken to restrict access to methods for suicide?

The media and suicide

18. What measures can the media take to prevent suicidal behaviour?

19. What is the role of the Internet in suicidal behaviour?

Suicidal behaviour prevention training programmes professionals

20. Are training programmes for the awareness, detection and approach to suicidal ideation and behaviour for health professionals effective in reducing completed suicide rates?

21. What suicidal behaviour prevention measures could be performed for non-health professionals?

SCREENING FOR SUICIDE RISK

22. Could suicide risk screening detect future suicidal behaviour and reduce its mortality? Are suicide risk screening tools effective?

23. Could asking about suicide increase suicidal behaviour in the population studied?

SUICIDAL BEHAVIOUR IN RISK GROUPS

Suicidal behaviour in childhood and adolescence

24. What are the risk and protective factors associated with suicidal behaviour in childhood and adolescence?

25. How is suicide risk in childhood and adolescence detected and assessed?

26. Are there any adequate psychometric instruments for assessing suicide risk in childhood and adolescence?

27. Are there any preventive interventions to reduce suicide risk in childhood and adolescence?

Suicidal behaviour in older patients

28. What are the risk and protective factors associated with suicidal behaviour in the elderly?
29. How is suicide risk in the elderly detected and assessed?
30. Are there any adequate psychometric instruments for assessing suicide risk in the elderly?
31. Are there any preventive interventions to reduce suicide risk in the elderly?

Prevention of suicidal behaviour in other risk groups

32. What preventive measures have proved effective in preventing suicidal behaviour in patients with high dependency, serious somatic illness or disability?
33. What suicide prevention measures should be conducted in carers of patients with high dependency, serious somatic illness or disability?
34. What suicide prevention measures should be taken in different work situations considered at risk?
35. What prevention measures could be recommended to prevent suicidal behaviour in people suffering domestic violence?
36. What suicidal behaviour prevention measures can be recommended for the prison population?

INTERVENTIONS FOR FAMILY, FRIENDS AND PROFESSIONALS AFTER A SUICIDE

37. What are the needs and expectations of the relatives after a suicide?
38. After the suicide of a person, is there any preventive intervention to reduce the impact on their family and friends?
39. Are there any preventive community interventions after a suicide?
40. Are there any interventions after the suicide of a patient to reduce the impact on the professionals involved in managing it?

CLINICAL INTERVENTION PROGRAMMES FOR SUICIDAL BEHAVIOUR IN SPAIN

41. Are the clinical intervention programmes conducted in Spain effective in reducing future episodes of suicidal behaviour?

LEGAL ASPECTS OF SUICIDE IN SPAIN

42. What are the most important legal issues in dealing with suicidal behaviour in Spain?

SIGN Levels of evidence and grades of recommendations

Levels of evidence	
1++	High quality meta-analyses, systematic reviews of clinical trials or high-quality clinical trials with very low risk of bias.
1+	Well-conducted meta-analyses, systematic reviews of clinical trials, or well-conducted clinical trials with little risk of bias.
1-	Meta-analyses, systematic reviews of clinical trials or clinical trials with high risk of bias.
2++	High quality systematic reviews of case control or cohort or studies. High quality case control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal
2+	Well-conducted case control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal.
2-	Cohort or case-control studies with a high risk of bias and a significant risk that the relationship is not causal.
3	Non-analytical studies such as case reports and case series.
4	Expert opinion.

Grades of recommendation	
A	At least one meta-analysis, systematic review or clinical trial rated as 1++ directly applicable to the target population of the guide; or a body of evidence consisting of studies rated as 1+ and showing overall consistency of results.
B	A body of evidence consisting of studies rated as 2++, directly applicable to the target population of the guide and showing overall consistency of results; or evidence extrapolated from studies rated as 1++ or 1+.
C	A body of evidence consisting of studies rated as 2+ directly applicable to the target population of the guide and showing overall consistency of results; or evidence extrapolated from studies rated as 2++.
D	Evidence level 3 or 4; or evidence extrapolated from studies rated as 2+.

Studies classified as 1-and 2- must not be used in the preparation of recommendations due to their high potential for bias.

The recommendations adapted from a CPG are indicated with the superscript^{CPG}.

Q	Evidence taken from relevant qualitative studies of appropriate equality. This category is not considered by SIGN.
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Good clinical practice	
✓ ¹	Recommended practice based on clinical experience and consensus of the editorial team.

Source: Scottish Intercollegiate Guidelines Network. Forming guideline recommendations. In: SIGN 50: A guideline developers' handbook: Edinburgh: SIGN; 2001 (3).

1. Sometimes the development group wishes to highlight an important practical aspect for which there is probably no supporting evidence. In general, these cases are related to an aspect of treatment generally accepted to be good clinical practice, and is evaluated as a point of good clinical practice. These messages are not an alternative to the recommendations based on evidence, but should be considered only when there is no other way of highlighting that aspect.

CPG Recommendations

I. Evaluation and treatment

Risk factors associated with suicidal behaviour and suicide risk assessment

D^{CPG}	After suicidal behaviour, adequate psychopathological and social assessment is always recommended, including psychological and contextual features for the patient, as well as an evaluation of risk and protective factors for suicidal behaviour.
✓	Health professionals involved in the care of patients with suicidal behaviour should have adequate training to enable them to evaluate the presence of risk factors for suicidal behaviour and record the patient's risk profile.
D^{CPG}	All the information collected during the evaluation process should be properly recorded in the medical record.
Q	Professionals should explain the purpose of the evaluation to patients and their relatives, and try to involve them as an active part of the therapeutic process.
✓	Communication of the patient's symptoms, thoughts and feelings associated with suicidal behaviour should be encouraged from the start of the clinical interview, and the patient and his relatives should be encouraged to be involved in the decision-making process.
D^{CPG}	It is advisable to have patient information from other sources, including family, and friends, as well as other health professionals or caregivers.
D	The clinical interview should be directed towards the collection of objective, descriptive and subjective information (patient's narrative, thoughts and ideas) and should be adapted to its objectives: regarding the setting, circumstances, time available, and conditions of the interviewee and preparation of the interviewer.
D^{CPG}	The estimation of suicide risk of a patient must be made by a professional clinical judgment, taking into account the presence of risk and protective factors.
A	The following should mainly be considered in assessing a suicide risk:
B	– Presence of previous suicide attempts and substance abuse
C	– Presence of mental disorders, and specific symptoms such as hopelessness, anxiety, agitation and severe suicidal ideation (recurrent thoughts of death every day, and most of the time), as well as stressful events and the availability of methods
D	– Risk factors associated with repetition, physical illness, chronicity, pain or disability, family history of suicide, social and environmental factors and a history of suicide in the environment.
D	The clinical interview should not be replaced by the use of self- and observer-rated scales, although they can contribute additional information in the evaluation.

C	Of the different scales available, the ones recommended are Beck's Hopelessness, Suicidal Ideation and Suicide Intent scales, as well as the items on suicidal behaviour from the Beck Depression Inventory and the Hamilton Rating Scale for Depression..
D	Although not validated in Spain, the SAD PERSONS and IS PATH WARM scales are also recommended for their ease of application.
C	When assessing a patient with multiple suicide attempts, it is recommended to evaluate the causes or precipitants of each of them independently.
✓	Any negative attitudes towards people with repeated suicidal behaviour should be avoided, encouraging professional care based on respect and understanding for these patients.

Assessment and management of suicidal ideation and behaviour in primary care

D	Training is recommended for primary care physicians in the assessment and treatment of suicidal ideation and behaviour, as well as implementing specific programmes about their diagnosis and psychotherapeutic approach, where appropriate.
✓	It is recommended to investigate suicidal thoughts in patients who are suspected of having suicidal ideation and who have suicide risk factors. This does not increase the risk of suicide.
D	It is recommended that patients are asked about their thoughts of suicide gradually. The interviewer must not be demanding or coercive, but have a warm and empathic approach.
✓	If the presence of suicidal ideation is confirmed, specific questions aimed at assessing the real possibility of suicide (e.g. frequency and seriousness of ideas, degree of planning) will be needed.
✓	The following is required when dealing with patients with suicidal ideation or suicide risk: <ul style="list-style-type: none"> – Prescribing drugs which are safe if overdosed – Prescribe containers with the fewest tablets possible – Explain the need for controlled custody and administration of the medication by the family. – Constant accompaniment by family members, as well as restricting access to methods for suicide. – Acceptance by the patient and family of the need for follow-up and referral to the mental health services.
D	After a suicide attempt in the field of primary care, the physical condition of the patient should first be assessed, then a decision made on any need for referral to a hospital for treatment of the injuries.

<p>D</p>	<p>After a suicide attempt in the field of primary care, an assessment including the following is recommended, where possible:</p> <ul style="list-style-type: none"> – Features of the attempt – Previous attempts at self-harm – Social and demographic factors – Associated mental disorders – Family history
<p>D</p>	<p>An urgent referral to the mental health services for a patient with suicidal ideation is recommended in the following cases:</p> <ul style="list-style-type: none"> – Presence of severe mental illness – Recent serious suicidal behaviour – A prepared suicide plan – Expression of suicidal intent – Social and family situation at risk or lack of support – If in doubt about the severity of ideation or the risk of an immediate attempt
<p>D</p>	<p>In cases of suicide attempt, the urgent referral to a hospital emergency department is recommended if:</p> <ul style="list-style-type: none"> – There is a need for medical treatment of the injuries produced, which may not be met in primary care – Voluntary intoxication with decreased level of consciousness or agitation (after stabilisation of the patient) has occurred <p>In cases of suicide attempt, and in the absence of the above, the urgent referral to the mental health services is recommended if there is a:</p> <ul style="list-style-type: none"> – High lethality of the plan, regardless of the outcome – Presence of severe mental illness – Recent severe self-harm behaviour – Previous suicide attempts – Social and family situation at risk or lack of support – If in doubt about the severity of the episode or risk of recurrence

✓	<p>A transfer to the mental health services (within a week) may be considered for patients with suicidal ideation or behaviour without any of the above criteria for immediate referral if all of the following conditions are met:</p> <ul style="list-style-type: none"> – Relief after the interview – Intention to control suicidal impulses – Acceptance of treatment and containment measures agreed – Effective social and family support
✓	All patient information will be recorded in the clinical history as well as the reasoning behind any referrals.
✓	After an episode of suicidal behaviour, proper communication between the mental health services and primary care physician is recommended.

Assessment and management of patients with suicidal behaviour in the Emergency Department

✓	All patients who attend the emergency department for suicidal behaviour should undergo triage to ensure they are attended within the first hour after arrival.
✓	The brief version of the Horowitz suicide risk questionnaire is proposed for use by emergency department triage staff for patients attending for suicidal behaviour without any severe affectation of their physical condition.
✓	The assessment of patients with suicidal behaviour should be conducted in an atmosphere of privacy, confidentiality and respect.
✓	All available security measures to prevent escape and aggression to themselves or others should be taken while in the emergency department.
✓	Besides assessing any change in the physical condition of the patient with suicidal behaviour, the hospital emergency doctor should always perform a basic social and psychopathological assessment.
D	When assessing a patient with suicidal behaviour, a systematic assessment of the risk factors and recording of the most relevant features of the suicide attempt is recommended; preferably using a standard form, with all information properly documented in the medical record.
✓	It is suggested that patients with a suicide attempt are assessed by a psychiatrist, when recommended by the emergency department doctor.
✓	Referral to a psychiatrist by the emergency physician should be performed when the patient is fully conscious and an appropriate psychopathological assessment can be performed.
✓	Sometimes the patient's psychiatric evaluation may be deferred, and the patient preferentially referred for a mental health consultation.

✓	<p>Improvements in the following areas of care for people with suicidal behaviour is recommended:</p> <ul style="list-style-type: none"> – Communication between patients and staff – An empathetic attitude from staff – Access to specialist health care – Information on suicidal behaviour for patients, caregivers and families.
D	Staff who are not mental health specialists should receive appropriate training in the assessment of patients who present with suicidal behaviour.
✓	<p>Training for the emergency physician in the care of patients with suicidal behaviour should include those aspects considered for their competence, including:</p> <ul style="list-style-type: none"> – Assessment of mental status and capacity of the patient and mood – Skills in detecting immediate suicide risk – Basic legal knowledge for emergency medical situations.
D^{CPG}	<p>The decision to hospitalise a patient after suicidal behaviour is often a complex process. The following factors should mainly be considered:</p> <ul style="list-style-type: none"> – Medical and surgical repercussions of the suicidal behaviour – Immediate suicide risk of the patient – Need for more intensive treatment of the baseline mental disorder – Lack of effective family and social support.

Treatment of suicidal behaviour in specialised care (mental health)

General recommendations	
✓	It is recommended to address suicidal behaviour from a broad perspective, in which the pharmacological, psychotherapeutic and psychosocial interventions from which the patient may benefit are comprehensively assessed with the involvement of health professionals from different levels of care.
✓	It is advisable to promote the development of a strong therapeutic alliance between patient and professional, and to have the support of the patient environment as a fundamental part of the therapeutic process.
Psychotherapeutic interventions	
✓	Psychotherapeutic techniques play an important role in the treatment of patients with suicidal behaviour, therefore it is recommended to ensure they are available for those who need them.
B	In general, psychotherapeutic treatments of a cognitive-behavioural type are recommended for patients with suicidal behaviour on a weekly basis, at least at the beginning of the treatment.

B	Psychotherapy should always be directed at some specific aspect of the suicidal spectrum (suicidal ideation, hopelessness, self-harm or other forms of suicidal behaviour).
B	Individual cognitive-behavioural sessions are recommended for adults with suicidal ideation or behaviour, although the inclusion of group sessions as an adjunct to individual treatment can be assessed.
B	Although other psychotherapeutic techniques could be evaluated, dialectical behavioural therapy must be considered preferential in adults diagnosed with borderline personality disorder.
B	Specific psychotherapeutic treatment is recommended in adolescents: dialectical behavioural therapy in borderline personality disorder and cognitive behavioural therapy in major depression.
B	Interpersonal therapy is recommended for adults with suicidal behaviour, patients over 60 years old with depression and suicidal ideation and in adolescents with suicide risk.
Pharmacotherapy	
A	It is recommended to use preferentially treatment with antidepressants from the group of selective serotonin reuptake inhibitors in adults with major depression presenting with suicidal ideation.
A	Patients over 60 years with major depression and suicidal behaviour are recommended to have monitoring continued over time with the use of combination therapy (selective serotonin reuptake inhibitors + interpersonal therapy).
A	In adolescents with major depression and suicidal ideation, the use of combination therapy (fluoxetine + cognitive behavioural therapy) is recommended.
D^{CPG}	The use of anxiolytic agents at the start of treatment with antidepressants in patients with major depression and suicidal ideation who also experience anxiety or agitation is recommended.
C	In patients with bipolar disorder and suicidal ideation, the use of antidepressants alone is not recommended unless accompanied by a mood stabiliser.
A	Lithium treatment is recommended in adult patients with bipolar disorder who have suicidal behaviour, due to its mood stabilising effect and potential for anti-suicidal action.
B	In adult patients with major depression and recent suicidal behaviour, a combination of lithium and antidepressant treatment is recommended to be assessed.
D	When ending lithium treatment, withdrawal should be done gradually, at least during two weeks.
C	For anticonvulsant treatment of borderline personality disorder, carbamazepine is recommended as the first choice drug to control the risk of suicidal behaviour.
C	In patients with bipolar disorder and suicide risk requiring anticonvulsant therapy, continuous treatment with valproic acid or carbamazepine is recommended.

✓	Special attention must be paid to the presence of suicidal ideation or behaviour in patients with suicide risk factors after treatment for epilepsy.
A	To reduce the risk of suicidal behaviour, the use of clozapine is recommended in the treatment of adult patients diagnosed with schizophrenia or schizoaffective disorder at high risk of suicidal behaviour.
Electroconvulsive Therapy	
✓	The decision to use electroconvulsive therapy should be taken after consultation with the patient, taking into account factors such as diagnosis, type and severity of the symptoms, medical history, risk/benefit ratio, alternative options and patient preferences. Written informed consent must be obtained in all cases.
✓	It is recommended that ECT always be given by an experienced professional, following a physical and psychiatric assessment in a hospital setting.
C	Electroconvulsive therapy is recommended in patients with severe major depression where there is a need for a rapid response due to the presence of high suicidal intent.
D ^{CPG}	Electroconvulsive therapy is also indicated in adolescents with severe, major and persistent depression, with behaviours that endanger their lives, or those who do not respond to other treatments.

II. Preventive aspects of suicidal behaviour

General measures for the prevention of suicidal behaviour

General programmes for the prevention of suicidal behaviour	
C	<p>The health authorities are recommended to implement the following specific lines of action for the prevention of suicidal behaviour:</p> <ul style="list-style-type: none"> – Development of preventive programmes in populations at risk – Training of health professionals in the detection of suicide risk and identification of risk and protective factors – Education of the general population and media – Improving procedures for identification, treatment and monitoring of people at risk of suicide – Improving access to health services and providing the right treatment to people with suicidal behaviour – Removing the taboo and stigma attached to mental illness and suicide in both health workers and the general public – Promoting research on suicide prevention.
Enhancing protective factors and resilience	
✓	The preparation and implementation of suicide prevention programmes based on enhancing protective factors and factors associated with resilience is recommended.
Restricting access to methods for suicide	
B	<p>It is recommended to reduce the availability of or limit access to lethal means of suicide, particularly those used most in a particular country:</p> <ul style="list-style-type: none"> – Restriction on the sale of psychotropic drugs – Reducing the size of drug packs in general. – Using less toxic antidepressants – Reducing the emissions of carbon monoxide from vehicles – Lowering the toxicity of domestic gas – Installation of barriers in high places – Restriction on the possession and control of firearms – Control of pesticides.
The media and suicide	
D	<p>The media are recommended to follow the WHO guidelines when reporting news about suicides, among which are:</p> <ul style="list-style-type: none"> – Not sensationalising news about suicides – Avoiding specific details about its features or circumstances – Providing information accurately, responsibly and ethically – Taking the opportunity to educate the public – Providing information on available aid resources – Taking into account the impact that the information can have on the families and friends after a suicide at all times.

✓	Measures at a national or regional level aimed at promoting the implementation of the WHO and similar guidelines to promote the proper treatment of suicide in the media are recommended.
D	<p>The implementation of measures to promote the Internet as an instrument to encourage mental health and suicide prevention is recommended. Examples of possible measures are:</p> <ul style="list-style-type: none"> – Trying to have pages with useful information for patients - aimed at suicide prevention or offering support - appearing in a priority location when performing a search with key terms – Regulating the control of Internet content by legislation, the involvement of organisations or service providers – Using filtering software to prevent access to certain forums or blogs.
Training programmes for the prevention of suicidal behaviour	
C	It is recommended that all professionals, both medical and non-medical, who may come into contact with people at risk of suicide acquire the appropriate knowledge, attitudes and skills for their management.
C	In general, it is recommended that programmes for training of health professionals on suicidal behaviour include information on risk and protection factors, assessment and crisis intervention strategies. The format may be on-site, online or mixed, and based on lectures, case discussions and role-playing.
C	It is recommended that training programmes include booster sessions on a regular basis (at least every 2 years).
✓	It is recommended to evaluate training programmes after their implementation, particularly their influence on clinical practice.
C	Training programmes in primary care are recommended to include the detection and treatment of depression, as well as specific content about suicide.
C	It is recommended that emergency services training programmes address the general aspects of suicide and enhance the development of skills in the clinical interview for the detection of comorbid psychiatric disorders, as well as suicide risk factors and groups.
C	Training programmes for mental health services are recommended to include the acquisition of skills in the management and prevention of suicidal behaviour, as well as general aspects of suicide.
C	Training programmes for non-medical professionals (e.g. teachers, educators, fire-fighters or police) are recommended to primarily address risk factors for suicidal behaviour, preventive aspects, crisis intervention and information about seeking professional help.

Screening for suicide risk

Screening for suicide risk	
D	In the general population, there is insufficient evidence to either recommend or not recommend suicide risk screening in adults.
C	In educational institutions, the evidence on the effectiveness and the possible impact on suicidal behaviour does not support the recommendation of implementation of screening programmes.
C	In primary care, it is suggested to implement suicide risk screening programmes in adolescents with the presence of suicide risk factors who may need to be referred to a specialist service. The Risk of Suicide Questionnaire (RSQ) can be used as a screening tool as it is the only one validated in Spanish.
C	In the emergency department, it is recommended to conduct suicide risk screening in adolescents with the presence of risk factors (e.g. depressive disorders, alcohol use or impulsivity) or with associated stress factors (e.g. break-up of relationships, unwanted pregnancies or exposure to cases of attemptor completed suicides), even if attending for other reasons.
C	Implementation of screening for depression associated with appropriate follow-up and health education programmes is recommended in the elderly, as they lessen the risk of suicide. The 15-item Geriatric Depression Scale (GDS) or the 5-item GDS subscale (GDS-SI) could be used as screening tools.
D	Suicide risk screening of prisoners is recommended on admission to prison, with subsequent observation and monitoring. No evidence has been found to recommend a screening scale in this population.

Suicidal behaviour in children and adolescents

Suicidal behaviour in children and adolescents	
D^{CPG}	Children and adolescents with presence of risk factors for suicidal behaviour are recommended to undergo a comprehensive psychopathological and social assessment. The evaluation must follow the same principles as in adults, while considering the particular psychopathological aspects of childhood and adolescence, and paying special attention to the family and the social situation.
C	To assess suicide risk in children or adolescents, it is recommended to ask directly about suicidal ideation or planning, past suicidal behaviour and other risk factors, as well as extend the evaluation to people close to the subjects (parents or teachers).
✓	The following scales are recommended for use in childhood and adolescence when being used to supplement the clinical interview: <ul style="list-style-type: none"> – Beck Hopelessness Scale (BHS) – Beck Depression Inventory (BDI) – Kiddie Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS) – Children Depression Rating Scale, Revised (CDRS-R).

C	Universal suicide prevention programmes, such as <i>Signs of Suicide</i> , are recommended to be implemented as part of the school curriculum, after being adapted and contextualised to the sociocultural environment.
C	Selective suicide prevention programmes, such as <i>Personal Growth Class</i> or <i>Counsellors Care</i> , are recommended for adolescents at risk of suicide, after being adapted and contextualised to the sociocultural environment.
C	There are insufficient data to recommend the use of suicide screening tools or programmes in schools.
D	The implementation of key figure training programmes (<i>gatekeeper</i>) for staff at educational institutions is recommended, to identify students at risk of suicide.
D	The following is recommended to prevent suicidal behaviour in children and adolescents with mental disorders: <ul style="list-style-type: none"> – Conducting a thorough assessment of suicide risk for the most beneficial treatment strategy in each case. – Paying particular attention to the presence of comorbidity. – Periodically assessing symptoms of depression, suicidal ideation and the possible presence of stressful life events. – Encouraging coordination among different levels of healthcare professionals to carry out appropriate monitoring.
✓	The treatment options recommended for assessment for suicidal behaviour in childhood and adolescence are psychotherapeutic, drug, combination therapy and in rare cases, electroconvulsive therapy.
✓	Guidelines should be provided for parents and/or carers on the control of direct access by children and adolescents to drugs, firearms or other potentially lethal means.
C	Clinicians are recommended take into account the pathological use or misuse of the Internet when assessing the risk of suicide, especially in adolescents and young adults.
D	Easily accessible information on suicidal behaviour and its prevention should be specifically prepared for adolescents and their families and offered on the Internet.
Suicidal behaviour in the elderly	
D	When assessing the risk of suicide in the elderly, it is especially recommended to check for the presence of depression, other illnesses, alcohol abuse or abuse of any other medication.
D	It is also recommended to assess the environment, quality of life and expectations of the person: <ul style="list-style-type: none"> – Who he lives with, the presence of support and social and family relationships – Ability to care for himself and to carry out daily living activities – Presence of hopelessness, patient attitude toward life and death.

C	The use of validated scales such as the Geriatric Depression Scale (GDS) is recommended when using scales to supplement the clinical interview in the older person.
D	Education about suicide is recommended for the elderly themselves, as well as their carers and the general public, including the media, to raise awareness and reduce stigma.
D	The doctor is recommended to prescribe drugs in smaller packs and monitor their use when dealing with patients with suicide risk factors.
Selective prevention:	
C	Community support interventions are recommended for the elderly at risk of suicide: e.g. telephone lines, group activities and psychoeducation.
D ^{CPG}	In general, the recommendations for adults when managing and treating suicidal behaviour should also be used for the older age groups.
Preventing suicidal behaviour in other risk groups	
✓	Persons with chronic illnesses and severe pain or physical disability are recommended to undergo preventive programmes and specific suicide risk assessments.
✓	It is recommended to perform a special monitoring of those patients with risk factors for suicide at the following times: when being diagnosed with a serious illness; when there is a poor prognosis of an illness; or when it is at an advanced stage.
✓	<p>General strategies for managing patients with chronic illness, physical disability or chronic pain should be carried out at three different levels:</p> <ul style="list-style-type: none"> – Universal: <ul style="list-style-type: none"> • Evaluate hopelessness and suicidal ideation • Monitor the warning signs that may increase the level of risk, such as depressive symptoms, substance abuse or a history of suicidal behaviour • Recognize that people may be at risk regardless of the time after the injury • Provide patients with the availability of long-term support – Selective: <ul style="list-style-type: none"> • Follow-up persons with comorbid psychiatric disorders – Indicated (presence of suicidal ideation and/or behaviour): <ul style="list-style-type: none"> • Reduce access to potentially lethal methods, including the possibility of more than one method • Provide treatment, support and monitoring for at least 12 months after a suicide attempt • Encourage the participation of friends and family in the treatment planning and development.
D	A suicide risk assessment is recommended in carers with depressive symptoms.
C	Carers with anxiety, depression and overload are recommended to undergo cognitive-behavioural type interventions to reduce the risk of suicide.

C	Health promotion programmes are recommended in the workplace to offer support and advice to workers and to increase the degree of integration and access to prevention services.
D	It is recommended to evaluate the employment situation of people at risk of suicide.
C	Suicide prevention programmes involving special care are recommended for victims of domestic violence.
D	Suicide prevention programmes are recommended in prisons for both personnel and inmates.

Interventions for family, relatives and professionals after a suicide

D	<p>The following is recommended when implementing any intervention aimed at the family and friends after a suicide:</p> <ul style="list-style-type: none"> – Contextualising the intervention strategy – Taking into account the effect of stigma on family and friends – Considering the needs and expectations of the people involved.
3	As soon as possible after a suicide, care which is flexible and tailored to the needs of each person should be offered.
D	After a suicide, it is recommended that health professionals offer support to family and friends and provide them with all the necessary information about available support resources, including specific treatments and the possibility of long-term monitoring.
B	Cognitive behavioural therapy is recommended in family and friends with suicidal ideation after a suicide, as it reduces the risk of pathological grief in these people.
D	It is recommended to implement training programmes for key figures (gatekeepers) in the school to increase the knowledge of educational personnel about suicidal behaviour and the impact of suicide on family and friends of the victim.
C	It is recommended that all professionals receive specific training on the emotional implications of a patient suicide and the necessary coping strategies.
D	After the suicide of a patient, it is recommended to ensure that the necessary support is given to professionals directly involved and to conduct a review of the case and the underlying factors.

Suicide behaviour clinical intervention programmes

C	Suicidal behaviour clinical prevention programmes based on health education and the implementation of measures to ensure immediate care and adequate monitoring are recommended for implementation in the health services.
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1. Introduction

1.1. Suicidal behaviour

Suicide is a serious public health problem with about one million deaths per year worldwide (2, 3) and it has been estimated that every year 14.5 per 100,000 people die by suicide (3). Moreover, its impact on the environment is very significant, as the lives of loved ones are deeply affected on an emotional, social and economic level. In the US, the economic costs associated with suicide have been estimated at about \$25,000 billion annually, including direct and indirect costs (3, 4).

Therefore, the adoption of measures and the development of strategies aimed at reducing suicidal behaviour are of great importance. The European Union has promoted initiatives such as the *Mental Health Promotion and Mental Disorder Prevention* (5), where suicide prevention is considered one of the areas of intervention. In Spain, the Mental Health Strategy for the period 2009-2013 (6) includes the prevention of suicide and the evaluation of specific actions to reduce suicide rates in risk groups among its objectives.

1.2. Conceptualisation

In 1986, the World Health Organisation (WHO) defined suicide as “an act with a lethal outcome, deliberately initiated and performed by the subject, knowing or expecting its lethal outcome and through which (s)he aims to achieve the desired changes”; and parasuicide as “an act without fatal consequences whereby, without help from others, a person who injures himself (or her) or ingests substances in order to achieve change through the actual or expected consequences on their physical state” (7).

At present, it is considered that suicide moves along a continuum of different nature and severity, ranging from ideation (the idea of death as rest, death wishes and suicidal ideation) to the growing behavioural gradation (threats, gestures, attempts, and completed suicide).

The conceptualisation of suicidal behaviour is complex and some of the related terms are of little practical use, for either research or clinical practice, so it has been necessary to formulate precise definitions that attempt to specify different aspects (8, 9). Diekstra’s classification criteria for suicidal behaviour (10) differentiate between suicide, suicide attempt and parasuicide, depending on whether the outcome was fatal or not and the severity of this conduct. Meanwhile, O’Carroll et al. (11) proposed a classification of the thoughts and behaviours related to suicide, adopted by the US *National Institute of Mental Health* (NIMH) which is considered one of the most practical. It differentiates between suicidal ideation, instrumental behaviour, suicide attempts and completed suicide. Subsequently, several articles were published on the adequacy of the terminology used for suicide, concluding that the use of a common nomenclature facilitates communication, training and research in suicide, even if it does not quite capture the full complexity of the phenomenon.

In 2007, Silverman et al (12, 13) proposed a revision of the O’Carroll et al. nomenclature, where they included key aspects of different definitions proposed earlier, such as: a result of the behaviour, the extent of the act, the degree of intent and knowledge or awareness of the results of such conduct (14). To this new proposal was added a category called suicidal communication, which included suicide threats and planning; while the term instrumental behaviour was changed to suicide threat (Table 1).

Table 1. Review of O’Carroll et al. nomenclature, proposed by Silverman et al.

Suicidal Ideation	a. Without suicidal intent	1. Casual 2. Transient
	b. With undetermined intent	3. Passive
	c. With some degree of suicidal intent	4. Active 5. Persistent
Suicidal Communication*	a. Without suicidal intent: 1. Verbal or non-verbal, passive or active (Suicide Threat, Type I) 2. Proposal of a method to perform self-harm (Suicide Plan, Type I)	
	b. With undetermined intent 1. Verbal or non-verbal, passive or active (Suicide Threat, Type II) 2. Proposal of a method to perform self-harm (Suicide Plan, Type II)	
	c. With some degree of suicidal intent 1. Verbal or non-verbal, passive or active (Suicide Threat, Type III) 2. Proposal of a method to perform self-harm (Suicide Plan, Type III)	
Suicidal behaviour*	a. Without suicidal intent 1. No injury (Self-harm, Type I) 2. With injury (Self-harm, Type II) 3. With fatal outcome (Self-inflicted unintentional death)	
	b. With undetermined intent 1. No injury (Undetermined suicidal behaviour, Type I) 2. With injury (Undetermined suicidal behaviour, Type II) 3. With fatal outcome (Self-inflicted death with undetermined intent)	
	c. With some degree of suicidal intent 1. No injury (Suicide attempt, Type I) 2. With injury (Suicide attempt, Type II) 3. With fatal outcome (Suicide)	
<p>*Additional classification for Suicidal Communication and Behaviour:</p> <ul style="list-style-type: none"> – Focus Intrapersonal: obtaining changes in the internal state (escape/release) – Focus Interpersonal: obtaining changes in the external state (affect/control) – Focus mixed 		

Source: compiled from Silverman et al. (12, 13).

Silverman et al. (12, 13) added the types I, II and III to try to simplify the terminology to include all possible combinations of different clinical variables. Thus, suicidal communication is considered Type I when there is no suicidal intent; Type II when there is a degree of undetermined intent; and Type III when there is some intentionality. Suicidal behaviour is classified as Type I if it does not cause injury and Type II if it does cause injury.

The definitions of this terminology are as follows:

- Suicidal ideation: thoughts about suicide (cognition).
- Suicidal communication: an interpersonal act transmitting the thoughts, desires or intentions to end one's life, for which there is implicit or explicit evidence that this act of communication does not in itself suppose suicidal behaviour. Suicidal communication is somewhere between suicidal ideation (cognition) and suicidal behaviour. This category includes verbal and nonverbal communication, which may have intentionality, but where no injuries occur. There are two types of suicidal communication:
 - Threatening suicide: an interpersonal act, verbal or non-verbal, which could be a predictor for suicidal behaviour in the near future.
 - Planning suicide: the proposal of a method with which to carry out potential suicidal behaviour.
- Suicidal behaviour: a potentially injurious and self-inflicted behaviour, where implicitly or explicitly there is evidence that:
 - a. The person wants to use the apparent intention of dying for some purpose.
 - b. The person has some degree, whether determined or not, of intending to end his/her life.

Suicidal behaviour may result in no injury, provoke that of varying severity or cause death. Suicidal behaviour is considered to be:

- Self-harm/suicidal gesture: Self-inflicted, potentially harmful behaviour for which there is evidence, express or implied, that the person did not intend to kill himself. The person wants to use the apparent intention of dying for some purpose. This type of behaviour may result in no injury, provoke that of varying severity or cause death (unintentional self-inflicted death).
- Undetermined suicidal behaviour: degree of undetermined behaviour of suicidal intent which may result in no injury, provoke that of varying severity or cause death (unintentional self-inflicted death with undetermined degree of intentionality).
- Suicide attempt: Self-inflicted, potentially harmful behaviour, without a fatal outcome, where implicitly or explicitly there is evidence of intention to cause death. This type of behaviour may or may not result in injury, regardless of the lethality of the method.
- Suicide: Self-inflicted death with implicit or explicit evidence that the person had intended to cause death.

The nomenclature proposed by Silverman et al. (12, 13) is adopted in this clinical practice guideline (CPG).

1.3. Epidemiology of suicide

Suicide is currently among the fifteen leading causes of death worldwide. In some countries it is the second leading cause in the 10-24 years age group and the third in the 15-44 years group. The trend is upward, and it is estimated that the number of suicides will be 1.53 million in 2020 (15). However, the different registration procedures, social values and cultural practices of each country will likely have an effect on the registration of deaths and can lead to errors in suicide quantification (2, 16).

In psychological autopsy studies, about 90% of people who die by suicide are considered to have had mental disorders (2, 17-19); with depression, substance abuse psychotic disorders, personality disorders and anxiety disorders being the most frequently associated disorders, among others (2, 20). The study by the *European Study of the Epidemiology of Mental Disorders* (ESEMeD) predicts that 14.7% of the European population will present an affective disorder throughout their life (almost 20% in the case of Spain), 14.5% an anxiety disorder and 5.2% an alcohol abuse disorder (21, 22).

Although psychological autopsy is considered the best method of studying completed suicides, the data from them regarding suicide-related mental disorders are subject to bias, caused by: retrospective data collection, the tendency to attribute mental disorders to people who die by suicide, the conditioning of the information offered by family members searching for an explanation of the suicide and, in some cases, the collection of information from more distant relatives (23, 24).

Social and demographic factors

- **Region or country:** The highest suicide rates worldwide are in Lithuania and Russia (51.6 and 43.1 per 100,000 inhabitants), and lowest in Azerbaijan, Kuwait and the Philippines (1.1, 2.0 and 2.1 per 100,000 inhabitants). In Europe, suicide is the tenth leading cause of death, with Eastern European countries having the highest rates (16). There are also high rates in the Nordic countries (2).
- **Gender:** The male to female suicide ratio is 4:1 in Western countries (3) and between 3:1 and 7.5:1 in the rest of the world (18). Two exceptions are India and China where there are no clear gender differences (1.3:1 in India and 0.9:1 in China) (18). Although the rates are lower for women than men, there is a pattern within each country for those with high male suicide rates to also have high female suicide rates (16).
- **Age:** Although proportionally suicide rates are higher among older people, given the population distribution, the absolute number of reported cases is higher among people younger than 45 years; this seems to exist in all continents, and seems not to be related to levels of industrialisation or wealth (15). However, both completed suicide and suicide attempts are rare before puberty (25). In Europe, the suicide rate in the young multiplied four times between 1980 and 2000, (16).

- **Race:** There seem to be suicide patterns according to race, with lower rates among Hispanics and African Americans than among Europeans, especially Caucasians who have double the rates observed in other races. However, the suicide rate among US African Americans is currently increasing (2, 3).
- **Religion:** This may act as a protective factor, since atheists have the highest suicide rates, while Buddhists, Christians, Hindus and Muslims have the lowest rates among the different religions practised (26).

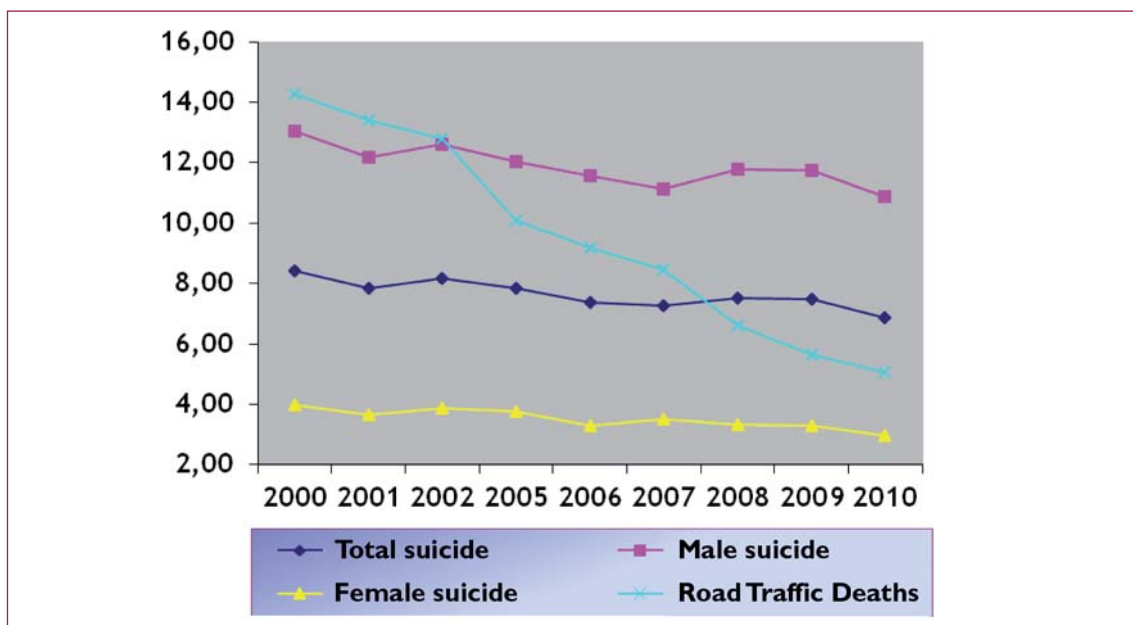
If completed suicides account for about one million cases per year, suicide attempts could be 10 or 20 times as many. This translates into an suicide attempt every three seconds and one completed suicide every forty seconds (3). There are significant differences between suicide and suicide attempts regarding age and sex; with the former being more prevalent in men, and attempts being more common among young women (15, 27).

Suicide in Spain

According to 2010 data from the National Statistics Institute (INE), on average in Spain nine people died by suicide every day, with males being more than three times as likely to do so than women (78.09% vs 21.90%), (28). Although the suicide rates are among the lowest in Europe (3), they appeared to be increasing until 2003. However, since 2004 the trend is stable or declining, as it is in Europe (16, 29), (graph 1).

In Europe, 58,000 people die each year from suicide, which is 7,000 more than traffic accidents (30). Comparing both causes of death in Spain over the last few years, a significant reduction in deaths from traffic accidents can be seen, while suicide rates have remained stable (graph 1) and have now become the leading cause of unnatural death since 2008.

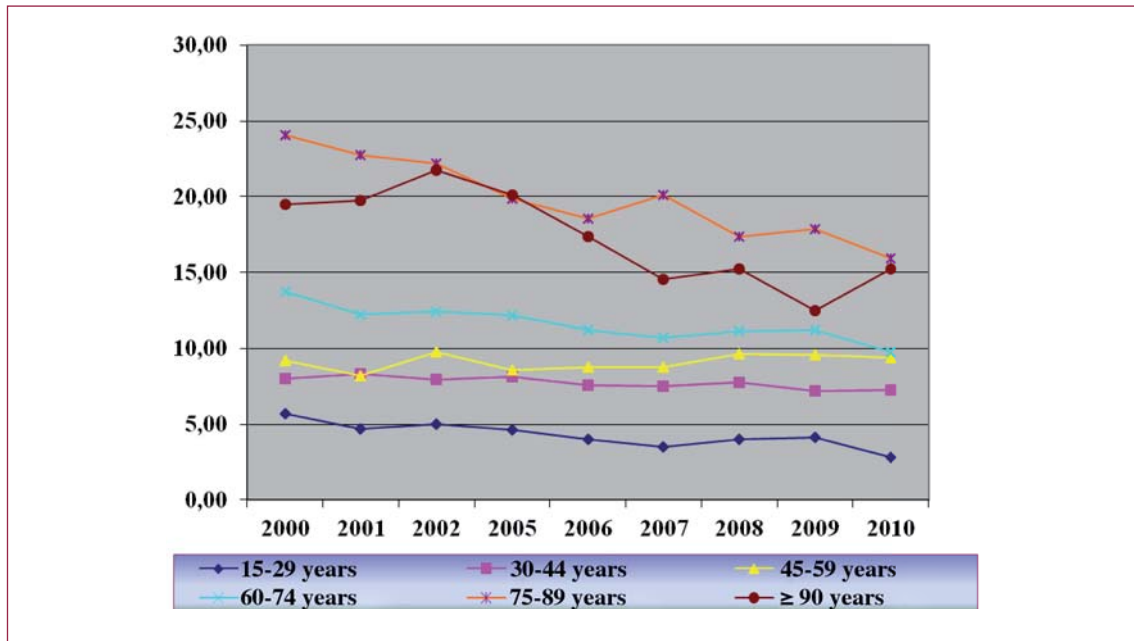
Graph 1. Traffic accident and Suicide Mortality in Spain (per 100,000 inhabitants)



Source: Spain National Statistics Institute (31). Prepared by authors.

Data collected by the INE show that the pattern of suicidal behaviour in Spain is similar to the rest of the world (3), with most suicides in the male population and increasing rate with increasing age (graph

Graph 2. Overall suicides rates in Spain
(In age groups, and per 100,000 inhabitants)

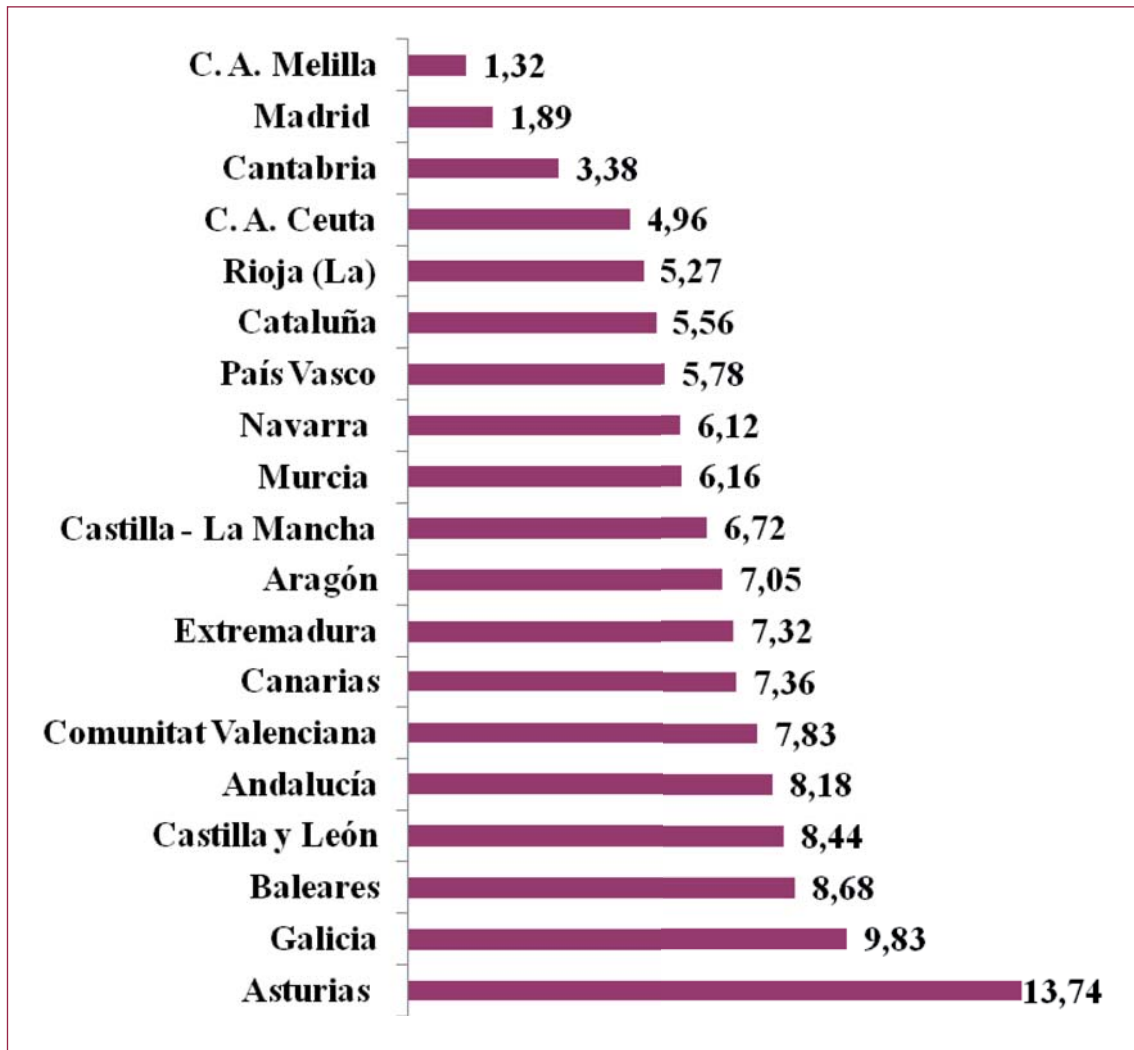


Source: Spain National Statistics Institute (31). Prepared by authors.

Analysing the data by autonomous communities, the highest rates (per 100,000 inhabitants) are in Asturias (13.74) and Galicia (9.83), while Madrid (1.89) and Melilla (1.89) have the lowest rates, see graph 3 (32).

The rate of suicide attempts in Spain is estimated at 50-90 per 100,000 population/year, although the actual numbers are difficult to estimate because of the difficulty in collecting data (30). The most common method is drug poisoning, with an annual acute poisoning incidence of 170 for those admitted to hospital (34) and 28 for out-patients (33).

Graph 3. Overall suicides rates in Spain, 2010
(In autonomous communities, and per 100,000 inhabitants)



Source: Spain National Statistics Institute (32), 2010. Prepared by authors.

2. Scope and objectives

This Clinical Practice Guideline for the Prevention and Treatment of Suicidal Behaviour is part of the Clinical Practice Guideline Programme based on evidence to aid clinical decision-making in the SNS, implemented by the Ministry of Health Quality Plan.

We believe that the preparation of a CPG on the different aspects of suicidal behaviour will help in making decisions about its management, reducing variability in clinical practice and, consequently, helping improve the health and quality of life of the population.

The **main users** for whom this guideline is meant are all professionals involved in the management of suicidal behaviour, as well as the patients themselves and their loved ones.

Objectives:

- Improve the health care provided to patients with suicidal behaviour.
- Provide recommendations to health professionals about assessment, treatment and prevention.
- Help patients, families and close friends by preparing information specifically targeted for them, and improve communication between health professionals and patients with suicidal behaviour and their families.
- Develop indicators that can be used to assess the quality of care.
- Identify priority areas for future research.

Scope:

- The target groups are adolescents, adults and the elderly who are at risk of suicide, suicidal ideation or suicidal behaviour.
- The guideline will cover the care that these patients can expect to receive from healthcare professionals in both primary care and specialised care, as well as the preventive aspects.
- Areas that are not addressed by the CPG include: 1) The somatic treatment of a suicidal behaviour episode, 2) Treatments not included in the service portfolio, 3) The organisation of healthcare services, and 4) Ethical and moral aspects.

Structure:

Due to its length, the guideline is structured in two parts: The first part deals mainly with issues related to the **assessment** and **treatment** of suicidal behaviour:

- Risk and protective factors of suicidal behaviour
- Suicide risk assessment
- Assessment and management of suicidal ideation and behaviour in primary care

- Evaluation and management of patients with suicidal behaviour in the Emergency Department
- Suicidal behaviour treatment options:
 - Psychological therapeutic interventions
 - Pharmacotherapy
 - Electroconvulsive therapy
- Clinical decision tools:
 - Suicidal behaviour in primary care
 - Suicidal behaviour in hospital emergency departments
- Legal aspects of suicidal behaviour.
- Information for patients and families on suicidal ideation and behaviour.

The second part deals with the **preventive aspects** of suicidal behaviour:

- General suicidal behaviour prevention measures:
 - International suicidal behaviour prevention programmes
 - Empowerment and resilience factors
 - Restricting access to lethal means
 - The media and suicide
 - Training programmes
- Suicide risk screening
- Suicidal behaviour risk groups:
 - Children and adolescents
 - Older people
 - Others
- Interventions of family, relatives and professionals after suicide
- Clinical intervention programmes in Spain
- Quality indicators
- Recommendations for future research
- Information for families and relatives about grief after a suicide.

3. Methodology

The methodology used to develop the CPG is found in the CPG Preparation Methodology Manual of the National Health Service (35).

The steps followed were:

- Constitution of the guideline development group, composed of three methodology experts from the Galician Health Technology Assessment Agency (avalia-t) and a group of health professionals (clinical group). The clinical group in the first part of the guide (evaluation and treatment) consisted of the following: 7 psychiatrists, 4 psychologists, a family doctor, a hospital emergency department physician and a mental health nurse. The group for the second part of the guide (prevention) consisted of the following: 6 psychiatrists and a hospital resident physician in psychiatry, 2 clinical psychologists, a resident psychologist, a family doctor and a mental health nurse.
- Formulation of clinical questions using the PICO format: Patient problem or population (P), Intervention (I), Comparison (C) and Outcome (O).
- Literature database search: 1) Specialising in systematic reviews, such as the *Cochrane Library Plus* and the *NHS Centre for Reviews and Dissemination database* (HTA, DARE and NHSEED); 2) Specialising in clinical practice guidelines and other synthesis resources, such as *Turning Research into Practice (TRIP)*, the *National Guideline Clearinghouse and GuiaSalud*; 3) General, such as Medline (PubMed), EMBASE (Ovid), ISI WEB, Bibliographic Index of Health Sciences (IBECS) and the Spanish Medical Index (IME); as well as specialist, such as PsycINFO. Languages: English, French, Spanish, Italian and Portuguese. An initial literature search was conducted without any time limit of all existing CPGs in the major bibliographic databases, and their methodological quality was assessed. Secondly, a systematic search of original studies (e.g. RCTs, observational studies and diagnostic test studies) was conducted in the selected databases, using a search strategy, inclusion and exclusion criteria and a subsequent manual literature search of the bibliography included in the selected items.
- Assessment of the quality of studies and summary of evidence for each question, as recommended by the *Scottish Intercollegiate Guidelines Network (SIGN)*.
- Recommendations were made based on the SIGN “formal evaluation” or “reasoned judgment” approach. The classification of evidence and grading of recommendations was performed using the SIGN system. Controversial recommendations or those with no evidence were resolved by informal consensus of the development group.
- Expert contributors participated in the framing of the clinical questions and the reviews of various sections of the guide and its recommendations. External reviewers participated in the review of the draft guide, and these were proposed by representatives of various scientific societies and associations related to suicidal behaviour (see list in the authorship section), as well as by renowned professionals proposed by the development group. In addition, a group of patients and families contributed to the preparation of the information for families section and to its external review.
- The clinical guideline development group members, expert contributors and external reviewers declared potential conflicts of interest (Annex 5).

- All the information on the CPG methodology applied (e.g. literature search strategies, critical reading cards from the selected studies and evidence summary tables) is available in detailed form at <http://portal.guiasalud.es>.
- It is planned to update the guide every 5 years or less if new scientific evidence to modify some of the recommendations offered in this guide appears. Updates will be made to the electronic version of the guide, available on the GuiaSalud website (<http://portal.guiasalud.es>) and on the Galicia Health Technology Assessment Agency webpage (<http://avalia-t.sergas.es>).

I. EVALUATION AND TREATMENT

4. Risk factors associated with suicidal behaviour and suicide risk assessment

Key questions:

- What are the major risk factors associated with suicidal behaviour?
- What factors may act as precipitants of suicidal behaviour and what are the protective factors?
- What is the role of the clinical interview in suicide risk assessment?
- Are there any psychometric tools to predict the risk of future episodes of suicidal behaviour?

4.1. Risk factors

Identifying the factors that increase or decrease the level of suicidal risk is of great importance because of their close relationships with such conduct (36). The level of risk increases with the number of factors involved, although some have a specific importance greater than others (2, 36).

The suicide risk assessment is carried out by professional clinical judgment, by assessing the factors involved in a particular way for each person, at a particular time of their life while experiencing specific stressful events (36, 37).

Risk factors can be classified into modifiable and non-modifiable. The former relate to social, psychological and psychopathological origins and may be changed clinically. Non-modifiable factors are associated with the subjects themselves or the social group they belong to, and are characterised by their maintenance over time and because their change is outside clinical control, see Table 2 (38).

Table 2. Classification of modifiable and non-modifiable suicide risk factors

Modifiable	Non-modifiable
<ul style="list-style-type: none"> – Affective disorder – Schizophrenia – Anxiety disorder – Substance abuse – Personality disorder – Other mental disorders – Physical health – Psychological dimension 	<ul style="list-style-type: none"> – Heritage – Sex – Age: <ul style="list-style-type: none"> • Adolescents and young adults • Elderly people – Civil status – Working and financial situation – Religious Beliefs – Social support – Previous suicidal behaviour

Source: Compiled from Suicide and psychiatry. Suicidal behaviour prevention and management recommendations (38).

Another classification of suicidal behaviour risk factors is according to various fields, such as biological, psychological, social, family and environment (3, 39), in the same way as the scheme proposed in the Major Depression in Childhood and Adolescence Guide, although modified (25), see graph 4.

4.1.1. Individual risk factors

Mental disorders

Suicide is often associated with the presence of mental disorders (2, 18, 19).

Major Depression

This is the mental disorder most commonly associated with suicidal behaviour, with a suicide risk of 20 times that in the general population (40). It appears in all age ranges (2, 18, 19, 25, 41), although there is a greater risk when its onset is between 30 and 40 years (3). The WHO assumes that 65-90% of suicides and suicide attempts are associated with some degree of depression (3).

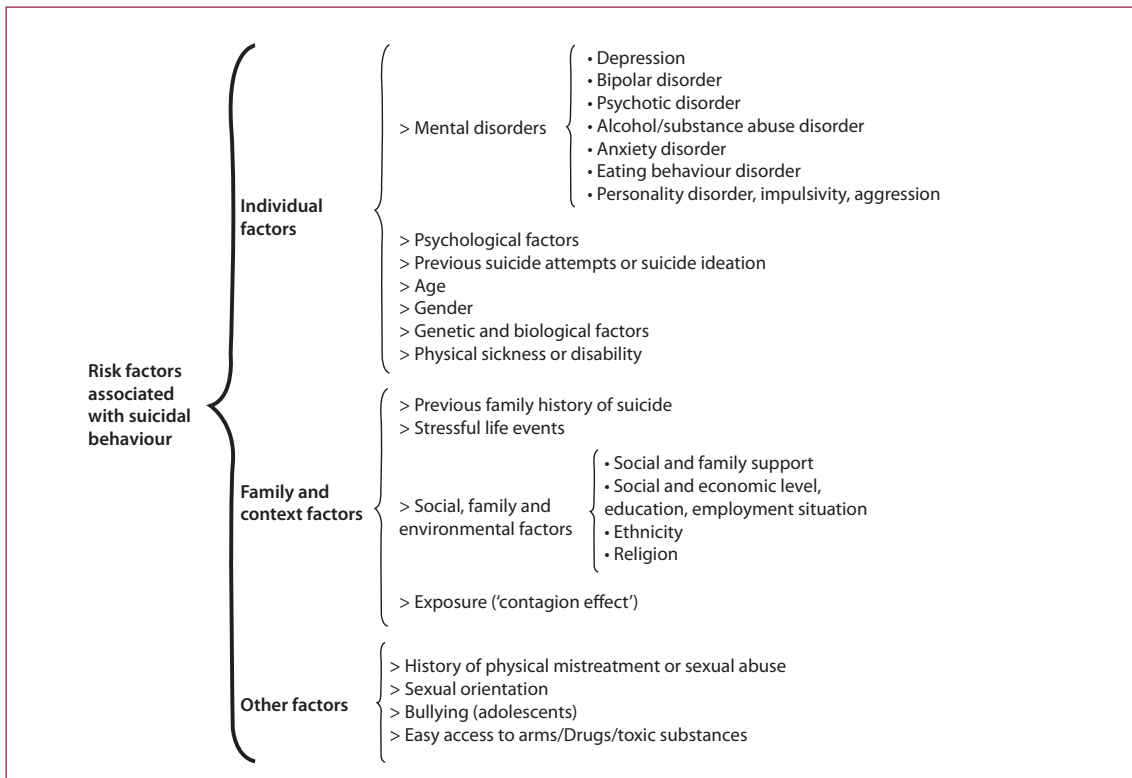
SR of various study types
2++

Expert opinion
4

This association of depressive disorders with the risk of suicide is statistically significant, especially in elderly populations and more in women than in men, although the number of studies was small for the latter analysis (42).

Study meta-analysis
1+

Graph 4. Factors associated with suicidal behaviour



Source: Prepared by authors

Bipolar disorder

Between 25-50% of patients with bipolar disorder make an attempt at suicide (40, 41). The risk is highest at the beginning of the disorder and when there is comorbidity (2, 40, 41), and is 15 times higher in these cases than in the general population (36, 40).

SR of various
study types
2++

Psychotic disorders

The patients diagnosed with schizophrenia at increased risk of suicide (2, 18, 40) are mainly young men during the first stage of the disease, patients with chronic relapse and those in the first months after discharge from hospital (2, 36, 40). The risk of suicide in these patients is 30-40 times greater than for the general population and it is estimated that between 25-50% of all people with schizophrenia will attempt suicide during their lifetime (40). However, because this disorder is relatively rare in the general population ($\approx 1\%$), it does not contribute significantly to the overall suicide rate.

SR of different
study types
2++
Expert
opinion
4

Patients with auditory hallucinations are no more at risk of suicide than other psychotic patients. However, as some seem to act in response to these hallucinations, it is important to identify and evaluate them in the context of other clinical features (36).

SR of different
study types
2+

Anxiety disorders

These may be associated with high rates of suicidal ideation and suicide attempts (3, 36). However, it has not been proven if anxiety disorders are independent risk factors or when associated with other conditions, such as depression, substance abuse or personality disorders (40).

SR of different
study types
2++
Expert
opinion
4

Eating behaviour disorders

One study found that one in four women with eating behaviour disorders (especially when comorbidity with conditions such as depression or anxiety exist) had a history of suicidal ideation or behaviour, which is four times higher than in the general female population (40). In these disorders, anorexia nervosa is the one with the highest risk of suicide (2, 36, 43), especially in women in late adolescence (40, 43).

SR of different
study types
2++

Abuse of alcohol and other substances

This exerts a significant role, as one in four suicides presents abuse with alcohol or other substances. It is not only a risk factor but also a precipitating factor, and has a statistically significant association with suicidal behaviour (42). Estimates suggest that the risk of suicide is six times higher in people with alcohol abuse than in the general population (40) and this abuse is often associated with other comorbid conditions (2, 18, 25, 40, 42) and, in general, after years of the condition (3).

Study meta-analysis
1+
SR of different study types
2++

Personality disorders

Those mostly associated with suicidal behaviour are antisocial personality disorder and borderline personality disorder (40), especially if there is a presence of comorbid disorders (18, 36, 40, 44). The risk of suicide for people with borderline personality disorder is 4-8% higher than in the general population.

SR of different study types
2++

Psychological factors

Psychological variables that may be associated with suicidal behaviour are impulsivity, dichotomous thinking, cognitive rigidity, hopelessness, difficulty in solving problems, overgeneralisation in autobiographical memory (45) and perfectionism (46). These factors vary with age, although hopelessness and cognitive rigidity are the two most significant (40).

SR of different study types
2++

Hopelessness is considered the most influential psychological factor related to the risk of suicidal behaviour (2, 18, 19, 40), with 91% of patients with suicidal behaviour expressing despair on the Beck scale (3).

SR of different study types
2++

Studies show that the concerns of perfectionism, seen socially as self-criticism, concern over mistakes and doubts about actions correlate with suicidality (46). Patients with mental disorders and suicidal behaviour have specific temperaments and personalities, which are different to those without. Among the most significant personality traits for suicidal behaviour is the presence of aggressiveness, impulsivity, anger, irritability, hostility and anxiety. Detection of these features may be useful as markers of suicide risk (47).

SR of different study types
2++

Previous suicide attempts and suicidal ideation

Suicidal ideation and planning greatly increase the risk of suicide (18).

Previous attempts are the strongest predictor of suicide risk (2, 18, 25, 40). During the first six months and even during the first year after an attempt, the risk increases by 20-30 times (3). The population most at risk of completed suicide after previous attempts are the elderly (2, 44), due to a greater intentionality, more lethal methods and lesser likelihood of survival from the physical consequences of an attempt (40).

SR of
different study
types 2++

Data from a meta-analysis (42) showed that previous attempts at suicide were the most important of the five factors studied (depression, substance/alcohol abuse, employment status and marital status). However, the longer suicidal ideation continues over time without any accompanying attempts or plans, the lesser the risk of suicide (18).

Study
meta-analysis
1+

Age

The times of life with most risk of completed and suicide attempts are adolescence and old age (2, 18, 25, 40, 48), as any attempt or suicide before puberty is considered exceptional due to the cognitive immaturity of the person (25). Of these groups, the elderly have suicide rates three times higher than adolescents because, among other factors, they use more lethal methods (3).

SR of
different study
types 2++

Gender

In general, men have higher rates of suicides and women a greater number of suicide attempts (18, 25, 40, 43). However, in China and India, the rates are similar between men and women, possibly due to the lower social status and other factors associated with women (43).

SR of
different study
types 2++

Also, on a worldwide basis, men have more lethal methods than women (40, 43), although China and India are exceptions, as in the previous case: China by pesticide ingestion and India with self-immolation (18, 43).

SR of
different study
types 2++

Genetic and biologic factors

In the general population, suicidal behaviour is associated with a dysfunction in the central serotonergic system, with low levels of serotonin metabolites being found in the cerebrospinal fluid of patients who died by suicide. Furthermore, there is a direct correspondence between low levels of serotonin and little impulse control. From the biological standpoint, the relevant factors in relation to suicidal behaviour would be those that reduce serotonergic activity, such as:

SR of
different study
types 2+

1) Genetic factors: Polymorphisms in the gene for the enzyme tryptophan hydroxylase (TPH), (2, 18, 25, 43, 49) or 5HT2A receptor gene.

2) Biochemical factors: Low levels of serotonin transport protein (50), low levels of monoamine oxidase in blood (49), high levels of the 5HT 1A and 5HT 2A postsynaptic receptors (49), low blood cholesterol levels (2) or a decrease in homovallinic acid in the cerebrospinal fluid (25, 43). In addition, two markers have been significantly associated with suicidal ideation: both reside in the genes GRIA3 and GRIK2, encoding the ionotropic glutamate receptors (25, 51).

A study by Baca-Garcia et al. (52) found three polymorphisms in a single nucleotide of three genes (rs10944288, HTR1E; hCV8953491, GABRP and rs707216, ACTN2) which correctly classified 67% of suicide attempts and non-attempts in 277 individuals.

Cohort study
2+

Studies in twins suggest that up to 45% of the differences in suicidal behaviour of twins are explained by genetic factors. These estimates of the heritability of suicidal behaviour are similar to those found in other mental disorders, such as schizophrenia and bipolar disorder (40).

SR of
different study
types 2++

Physical illness or disability

Pain in chronic illness, loss of mobility, disfigurement and other forms of disability or poor illness prognosis (e.g. with cancer or AIDS) are associated with an increased risk of suicide (2, 18, 53). Physical illness is present in 25% of all suicides and 80% of the elderly, although suicide is rarely associated with a single physical illness, without being associated with mental disorders (3).

SR of various
study types
2++

Cancer patients have a similarly prevalence of suicidal ideation to the general population, but with higher suicide rates (54).

Cohort study
2++

For AIDS, a review from 2011 found that HIV patients have high rates of suicidal behaviour requiring routine surveillance and monitoring as fundamental aspects of clinical care (55). However, given the favourable clinical outcome since the introduction of antiretroviral drugs in 1996, the suicide mortality rate has decreased significantly (56).

SR of studies
2++
Cohort study
2+

4.1.2. Family and context risk factors

Family history of suicide

A family history of suicide increases the risk of suicidal behaviour (2, 40, 43), especially in females (2, 18) and when the attempted or completed suicide occurs in a first-degree relative (43). The highest agreement occurs between monozygotic twins (3, 36, 40). SR of various study types 2++

Studies of adopted children showed that those who carried out suicide often had biological relatives who had done so (3). However, non-biological aspects of suicidal behaviour also have an important role, since adopted children often accept the role of the foster family, and even more so the earlier such adoption occurred (36). SR of various study types 2+

Stressful life events

Stressful situations such as personal loss (divorce, separation, death), financial loss (loss of money or work), legal problems and negative events (conflicts and interpersonal relations) can be triggers for suicidal behaviour in people with other risk factors (2, 18, 25, 40). SR of various study types 2++

Social, family and environmental factors

Social and family support

A statistically significant association was observed between having no spouse or partner and suicidal behaviour, although the strength of this association is less than for depression or alcohol abuse (42). Meta-analysis study 1+

Thus, suicidal behaviour is more common among people who are single, divorced, living alone or lacking in social support (3, 36, 40, 41, 53), and mainly in men, in the first months after the loss (separation, divorce or widowhood), (3). SR of various study types 2++

Moreover, there is no evidence that marriage is a protective factor in different cultures. Thus, in Pakistan there are higher rates of suicide among married women than among married men or single women; and, in China, married women over 60 have higher rates of suicide than widows or single women of the same age (3). Expert opinion 4

Socioeconomic status, employment status and educational level

In the developed world, the loss of employment and poverty are associated with an increased risk of suicide (18, 25, 40, 53), while the loss of employment or retirement can be considered as stressful events, increasing the risk of suicide by two or three times (42). SR of various study types 2++

People with highly-skilled jobs and professions with a high level of stress are also at high risk of suicide (3). Expert opinion 4

Finally, a low level of education is also associated with an increased risk of suicide (25, 40, 41). Cohort study 2++

Ethnicity

There is no conclusive evidence that race or ethnicity have an influence on the rate of suicide (53). There have been studies of the suicide rates in populations of young Aboriginal Australians and Eskimos compared with the non-Aboriginal population (40, 43). Meanwhile, in the US there are higher rates in young native Americans, although these differences may be due to “contagion” between isolated groups, rather than cultural differences (43). SR of various study types 2++

It has been observed that immigrant populations initially have suicide rates comparable with their country of origin but, with the passage of time, they adopt the values of the host country (36). Other studies, however, observed that migrants have rates of suicide comparable with their country of origin throughout their emigration period, and suicidal behaviour is attributed to originating cultural factors (3). SR of various study types 2++

Religion

Religious affiliation and activity appear to protect from suicide, as atheists seem to have higher rates (40). Countries with banned religious practices (such as the former Soviet Union) have the highest rates of suicide; followed by Buddhists and Hindus (with reincarnation beliefs); and, finally, Protestants, Catholics and Muslims (3). SR of various study types 2++

Exposure (the “contagion effect”)

Exposure to suicide cases (the “contagion” or Werther effect), or certain types of information about suicide in the media, have also been associated with suicidal behaviour. A particular type is “cluster” suicides in communities, which are more frequent among young people (2). SR of various study types 2++

4.1.3. Other risk factors

History of physical or sexual abuse

Physical and sexual abuse, and more specifically that produced during infancy, is consistently associated with suicidal behaviour (2, 25, 40, 43). Comorbidity is common in people with physical or sexual abuse, which contributes to an increased suicide risk (3, 43). SR of various study types 2++

The relationship between gender violence and suicide has been demonstrated in several studies (57-59). Thus, the probability that a battered woman suffers from mental disorders (including suicidal behaviour) is twice that of women who has not been abused (58).

Meta-analysis
2++
Expert
opinion 4

An increase in suicidal behaviour has also been shown for the attacker, as 2010 data in Spain show that 21.9% of offenders made a suicide attempt and 16.4% completed such an attempt after assaulting their partner with fatal consequences (60).

Sexual orientation

Although the evidence is limited, there appears to be an increased risk of suicide in homosexuals, especially during adolescence and in young adults (2, 18, 25, 43), due to sometimes suffering discrimination, tensions in their relationships, anxiety and a lack of support, which increase the risk of suicide (3, 36).

SR of various
study types
2++

Moreover, homosexuals have higher rates of alcohol abuse disorders, depression and hopelessness than their peers in the general population, which are the true risk factors for suicide. If these factors were controlled, sexual orientation could be a much lesser risk factor (61, 62).

Study
meta-analysis
1+
SR of various
study types
2++

Bullying

In adolescents, bullying has been associated with high levels of stress, as well as suicidal ideation and behaviour (25).

Case series
3

Easy access to weapons/drugs/poisons

Easy access to the means to carry out a suicide increases its risk (2, 18), making the transition from suicidal thought to action easier (2). Thus, the suicide method in the USA is usually with guns, in China by pesticides and in the rest of the world by hanging (2, 3).

SR of various
study types
2++

4.1.4. Precipitating factors

Certain life occurrences, such as stressful life events (2, 18, 25), individual psychological factors (25) or the easy access to means or methods of suicide (2), can serve as facilitating factors of suicide.

SR of various
study types
2++

People suffering from mental disorder or who have any risk factors may have suicidal ideation or behaviour after a precipitating event, such as humiliation (in adolescents), tensions in relationships (both adolescents and adults) and social isolation (usually in adolescents and the elderly), (3).

Expert
opinion
4

4.1.5. Protective factors

These are parameters that decrease the likelihood of suicide in the presence of risk factors (18). Knowledge about them is very important and can be divided into the following:

Personal (40, 63, 64):

- Ability to resolve conflicts or problems and having self-confidence. SR of various study types 2++
- Ability to maintain social and interpersonal relations, showing cognitive flexibility
- Having children, specifically in women.

Social or environmental (18, 19, 40, 43, 63):

- Strength and quality of family and social support SR of various study types 2++
- Social integration
- Having religious beliefs and practices, spirituality or positive values
- Adopting cultural and traditional values
- Comprehensive, permanent and long-term treatment in patients with mental disorders, physical disease or alcohol abuse.

4.2. Suicide risk assessment

Suicide risk assessment is an essential part in the management and prevention of suicidal behaviour (65), both in primary care and specialised care. Case series 3

The percentage of patients who undergo appropriate assessment following a suicide attempt varies between 60% (66) and 95% (67). Moreover, a study in Spain found that, although 94.9% of people who had made a suicide attempt were assessed, the full information was not included in the clinical reports (68). Case series 3

Estimating the risk of suicide is a complex process because of the very nature of suicidal behaviour and the methodological difficulties underlying their investigation. Thus, there are currently no specific indicators for suicidal behaviour or risk factors with a predictive power, per se.

The two basic tools for assessing the risk of suicide are the clinical interview and assessment scales; however, these do not replace clinical judgment, but are a support or supplementary aid.

4.2.1. Clinical interview

The clinical interview is an essential instrument in the assessment of suicide risk. Besides having an important role in evaluation, it marks the beginning of the interaction between patient and professional, and therefore may play an important role in reducing the risk of suicide (69).

Expert
opinion
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As well as a psychopathological assessment, social and demographic variables are collected along with those risk and protective factors, giving a comprehensive approach to suicide risk (69). The most appropriate approach would be to use both perspectives as much as possible, bearing in mind that the best choice is determined by different factors such as the setting, circumstances, time available, the status and availability of the interviewee, as well as personal style, experience, and training of the interviewer (70).

Expert
opinion
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Given the above, an appropriate social and psychopathological assessment must be made, which includes the following (Table 3), (36, 53, 7173):

Expert
opinion
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1. The assessment of psychological and contextual factors that explain why there has been a suicidal behaviour (history).
2. The features of the suicidal behaviour, to seek to identify the parameters that could predict a recurrence.

Table 3. Assessment of causes precipitating suicidal behaviour and risk of recurrence

Causes of suicidal behaviour: Psychological and contextual factors	Risk of suicidal behaviour
<ul style="list-style-type: none"> – Social situation – Interpersonal relationships – Recent life events or current problems – History of mental disorder, previous suicide attempts, alcohol and other drug abuse – Psychological features related to suicide behaviour 	<ul style="list-style-type: none"> – Features of intent: intentionality, developing a plan, lethality, method chosen – Personal characteristics: e.g. age, sex, presence of mental disorder, prior suicidal behaviour, hopelessness. – Contextual features: social isolation, social class,

Source: Prepared by the authors from National Institute for Health and Clinical Excellence (NICE), (53)

The WHO programme SUPRE published some recommendations for practitioners on how to ask about the different aspects of suicidal ideation and behaviour (Table 4), (15). Although these recommendations were for primary care, they may be used as a general guide for collecting information.

Expert
opinion
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Table 4. Recommendations for how,when and what to ask about suicidal behaviour

<p>HOW TO ASK:</p> <ul style="list-style-type: none"> - Do you feel sad? - Do you feel desperate? - Do you feel unable to cope each day? - Do you think that life is a burden? - Do you feel that life is not worth living? - Do you feel like committing suicide?
<p>WHEN TO ASK:</p> <ul style="list-style-type: none"> - Following the establishment of empathy in communication - When the person feels comfortable talking about his or her feelings
<p>WHAT TO ASK:</p> <ul style="list-style-type: none"> - Have you ever made plans to end your life? - Do you have any idea how you would do it? - Do you have pills, a gun, insecticides or others means? - Have you decided when to carry out your plan to end your life? When are you going to do it?

Source: Modified from WHO (15, 74)

At the start of the clinical interview, it is important to clearly explain the assessment objectives, take into account the interest of the patient and involve them in decisions about treatment (75). SR of different study types 3, Q

Also important are the skills and attitude of the clinician during the interview when collecting relevant information about the risk of suicide (53, 73). Table 5 shows some particular skills and errors in this area (76), along with verbal and non-verbal communication skills, which are necessary to establish an appropriate therapeutic relationship: active listening (looking, posture, hand movements, gestures of assent), empathy, warmth, understanding, assertiveness, emotional self-control, for example. The analysis of facial micro expressions (short and subtle emotional expressions that usually go unnoticed) can also help clinicians detect emotional states (77). Expert opinion 4

Table 6 details the key aspects that should be considered in assessing the risk of suicide, including personal data and risk and protective factors associated with suicidal behaviour (2, 36, 40, 44, 48). It also shows suicidal ideation/behaviour features, as well as the most important aspects of the clinical evaluation (2, 48, 53, 78). The type of suicidal behaviour according to the Silverman et al. nomenclature is shown at the end of the table (12, 13). SR of different study types 2++

Table 5. Clinical attitude during the clinical interview

- Ability to address a delicate and personal issue clearly and respectfully
- Communicate that your knowledge will be used to help
- Avoid disapproving and moralising comments
- No attempt to convince the person of the inadequacy of his behaviour
- Show calmness and security
- Be open and go into detail on all aspects that help to assess the risk of suicide, but avoid morbid questions
- Inform the families of the existence of risk and the measures to be taken, without generating excessive alarm that may be counterproductive
- Use some humour when the situation allows, but avoid sarcasm and irony at all times
- Attend not only to what the person says but also their expression, gestures, tone of voice, etc.
- Any hint of suicidal ideation requires the active participation of the professional. The greater the suicide risk suspected, the more a direct active response is required.

Source: Froján (2006), (76)

This information should be recorded explicitly in the clinical history and be completed, as required, in the follow up.

Emphasise that the information necessary to assess the suicide risk may come directly from the patient or from other sources, such as family, friends and other health professionals or caregivers.

Expert
opinion
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4.2.2. Assessment scales: self- and observer-reporting

There is a wide range of psychometric tests designed to assess the risk of suicide, which are based either on the direct assessment of suicidal ideation/behaviours and risk factors, or on symptoms or syndromes associated with suicide, such as hopelessness, depression, etc.

These tests may be an additional aid to the interview and clinical judgment, but should never replace them (9).

Expert
opinion
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Their use is not widespread in clinical practice, and there is also the disadvantage that some have not been validated in representative samples or clinical settings. In addition, some have not been adapted or validated in Spanish.

**Table 6. Assessment parameters
for a patient with suicidal ideation and/or behaviour**

PERSONAL DETAILS		
– Gender	– Country of origin	– Civil status
– Age	– Ethnic group	– Occupation
RISK FACTORS		PROTECTIVE FACTORS
<ul style="list-style-type: none"> – Presence of mental disorders – Previous suicide attempts – Hopelessness – Presence of suicidal ideation – Physical illness, chronicity, pain or disability – Family history of suicide – Presence of stressful life events – Social and environmental factors – History of suicide in social environment 		<ul style="list-style-type: none"> – Ability to resolve problems – Self-confidence – Social Skills – Cognitive flexibility – Having children – Quality of family and social support – Social Integration – Religion, spirituality or positive values – Adoption of cultural and traditional values – Overall treatment of physical/mental condition
SUICIDAL IDEATION FEATURES		SUICIDE ATTEMPT FEATURES
<ul style="list-style-type: none"> – Planning – Evolution – Frequency – Assessment of intent and determination 		<ul style="list-style-type: none"> – Precipitating factors – Assessment of intent – Lethality of behaviour – Method <ul style="list-style-type: none"> • Drug intoxication • Chemical poisoning • Physical damage – Attitude to current suicidal behaviour – Avoidance of rescue measures – Saying goodbye in the days beforehand
CLINICAL EVALUATION		SUICIDAL BEHAVIOUR TYPE
<ul style="list-style-type: none"> – Altered level of consciousness – Affection of mental ability – Intoxication by alcohol or other drugs – Mental Illness – Mood – Suicide plans – Ability to give informed consent – Assessment need by specialist 		<ul style="list-style-type: none"> – Suicidal ideation – Suicide communication – Suicidal behaviour

Source: Prepared by authors.

- A good assessment tool should have the following, it has been proposed (79):
- Be designed according to an operational definition of suicidal behaviour.
 - Include a quantitative rating system together with qualitative specifications on the level of risk to support the diagnosis and for monitoring purposes.
 - Collect information on key issues such as: method, frequency, duration, severity, motivation, precipitating and protective factors, suicidal ideation and history of previous suicidal behaviour.
- SR of various study types
2++, 3

Also included were the scales recommended in Spain, as their use is considered appropriate in clinical practice. Examples are SAD PERSONS and IS PATH WARM, which may be useful in assessing the immediate risk. Some instruments that have not been adequately validated were omitted.

Self-reporting scales

Beck Hopelessness Scale

The *Beck Hopelessness Scale* (BHS), (80), was designed to measure a person's degree of pessimism and negative expectations for the immediate and long-term future. Hopelessness is one of the risk factors most associated with suicidal behaviour and the American Psychiatric Association (APA) (36) has proposed that the BHS hopelessness measure be considered as a risk factor for suicide and, therefore, one of the treatment objectives.

SR of various study types
2++

The BHS consists of 20 true or false questions. Each response is scored 0 or 1 so that the total score ranges from 0 to 20; a score of 9 or greater indicates a suicide risk. There is a Castilian Spanish translation whose psychometric properties were evaluated in Peru (81), but not in Spain.

Cohort study meta-analysis
2++

It has been found that, contrary to the levels obtained in the original validation of the scale (82), the cut-off point of 9 indicates a lower risk of both attempts and completed suicide. For completed suicide, the sensitivity was 0.80 and specificity was 0.42. For suicide attempts, the sensitivity was 0.78 and specificity 0.42 (83). These results suggest that this cut-off point could be used to identify patients at risk of suicidal behaviour; however, the low specificity indicates that it is not a useful tool for selecting patients who might benefit from an intervention (83).

The WHO SUPRE-MISS study (15) used a single item from this scale (“the future seems dark”), as it considers that it may be sufficient to measure hopelessness (84).

Expert opinion
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Beck Depression Scale (item on suicidal behaviour)

The two versions of the Beck Depression Inventory, BDI (85) and BDI-II (86), include the same item designed to assess the presence of suicidal ideation or intent through four response options (Table 7). For concurrent validity, this item has shown a moderate correlation with the Beck suicidal ideation scale ($r = 0.56-0.58$); and for predictive validity, it was observed that patients who score 2 or more have a 6.9 times higher risk of suicide than those who get lower scores (87).

SR of cohort studies
2++

Table 7. BDI item on suicidal behaviour

I don't have any thoughts of killing myself	0
I have thoughts of killing, but I would not carry them out	1
I would like to kill myself	2
I would kill myself if I had the chance	3

Source: Beck Depression Inventory (BDI), (88).

It has been suggested that this item could be useful for monitoring fluctuations in suicidal ideation or as a screening tool for assessing the need for further evaluation throughout treatment (87).

Observer-reporting scales

SAD PERSONS

Designed by Patterson et al. (89), the name is an acronym formed by the first letter of the 10 items that comprise the scale (Table 8). Each item refers to a suicide risk factor and the absence/presence of each is assessed by scoring 0 or 1, respectively. A score less than 2 is indicative of low risk of suicide, between 3 and 4 indicates a moderate risk, between 5 and 6 a high risk and between 7 and 10 a very high risk.

Despite the popularity that this scale enjoys, no study evaluating its psychometric properties in Spain was found; so the cut-off points are from the original study. However, SAD PERSONS has been recommended in Spain for its educational content and ease of application (90) and also for use in primary care (91).

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IS PATH WARM

The acronym IS PATH WARM (Table 9), (92), is also formed from the initials of the risk factors analysed, and it was proposed by the *American Association of Suicidology* as an appropriate tool to assess the warning signs of suicidal behaviour.

Table 8. SAD PERSONS scale

<i>Sex</i>	Male sex
<i>Age</i>	<20 or >45 years
<i>Depression</i>	Presence of depression or hopelessness
<i>Previous Attempt</i>	Previous suicidal attempts
<i>Ethanol abuse</i>	Alcohol abuse
<i>Rational thinking loss</i>	Lack of rational thinking
<i>Social supports lacking</i>	No social support
<i>Organized plan for suicide</i>	Organized or serious attempt
<i>No spouse</i>	Single, widowed or divorced
<i>Sickness</i>	Health problems
0-2: Low risk 3-4: Moderate risk, out-patient monitoring or assess for hospital admission 5-6: High risk, recommended hospitalisation, especially if there is no social support 7-10: Hospital admission required	

Source: Patterson et al. 1983, (89)

Table 9. IS PATH WARM scale

<i>Ideation</i>	Threatening to hurt or kill self
<i>Substance abuse</i>	Increased or excessive substance (alcohol or drug) use
<i>Purposelessness</i>	No reason for living
<i>Anger</i>	Rage, uncontrolled aggressiveness
<i>Trapped</i>	Feelings that there is no other way out
<i>Hopelessness</i>	Hopelessness
<i>Withdrawal</i>	Withdrawing from friends, family and society
<i>Anxiety</i>	Anxiety, agitation or sleep disorders
<i>Recklessness</i>	Performing risky activities without considering potential consequences
<i>Mood</i>	Changes in mood

Source: Berman, 2006 (92)

Although there are no scores associated with guidance, it may be helpful in the assessment of immediate risk, as each of the risk factors it evaluates are usually present in the months before a suicide attempt (93).

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Scale for Suicide Ideation

The scale for suicidal ideation (SSI) was designed by Beck to quantify and evaluate the scope or intensity of suicidal thoughts, at the present time or retrospectively, in the context of a semi-structured interview (94). It consists of 19 items divided into four sections: attitude to life/death, suicidal ideation features, features of the attempt and preparations made.

High internal consistency and high inter-observer reliability have been shown for this scale. It has also demonstrated adequate validity, both concurrently (with the suicidal behaviour item of the Beck Depression Scale) and discriminantly (differentiating between depressed patients who are potentially suicidal and those who are not). For predictive validity, patients in the high risk category (total score greater than 2) have a seven times greater risk of suicide than those who get lower scores (87).

Cohort study
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There is a Spanish translation, but it has not been validated. The scale also has a 19-item version to measure the impact of suicide ideation in the patient's life (*Scale for Suicide Ideation-Worst, SSI-W*). Although both versions have demonstrated adequate psychometric properties, the SSI-W has a higher positive correlation with previous attempt history (87).

Suicide Intent Scale

Beck's Suicide Intent Scale (SIS) quantifies the severity of recent suicidal behaviour and its use is indicated after a suicide attempt. It was designed to assess verbal and non-verbal aspects of behaviour before and after the suicide attempt (95). Each of the 15 items is rated on a scale of 0 to 2 depending on the intensity, so the total score ranges from 0 to 30. The first part of the SIS (items 1-8) refers to the objective circumstances surrounding the suicide attempt (e.g. degree of preparation of the intent, context, precautions against discovery/intervention); while the second part (items 9-15) is self-reporting and covers perceptions on the lethality of the method, expectations about the possibility of rescue and intervention, for example.

The SIS demonstrated adequate psychometric properties, including high internal consistency and high inter-observer reliability. For predictive validity, the results of different studies were inconsistent; however, the item concerning precautions taken to avoid detection/intervention has been associated with an increased risk of suicide (87). There is an adapted and validated version of the SIS in a Spanish sample (96).

Cohort study
SR
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Hamilton Rating Scale for Depression (item on suicidal behaviour)

The Hamilton Rating Scale for Depression (HRSD) is an observer-rated scale designed to assess the severity of depressive symptoms (97), and is included in this section because it contains an item designed to assess the absence or presence of suicidal ideation/behaviour (Table 10).

This item had a high correlation with the SSI and with the BDI suicidal behaviour item. It has also proven to be an adequate predictor of suicidal behaviour, as a 4.9 times increased risk of suicide in patients whose score on this item was 2 or higher was observed (87). There is also a Spanish version of the scale validated (98).

Cohort study
SR
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Table 10. HRSD suicidal behaviour Item

Absent	0
Feels life is not worth living	1
Wishes he were dead or any thoughts of possible death to self	2
Suicidal ideas or gesture	3
Attempts at suicide (any serious attempt)	4

Source: Hamilton Rating Scale for Depression (97).

Tables 11 and 12 show other scales designed for the assessment of suicide risk or aspects related to it. A semi-structured interview for psychological autopsy is also included.

Table 11. Self-reporting tests for assessing suicide risk or related aspects

Name (ref)	Purpose	No. of items
Suicidal Behaviour Questionnaire, (SBQ), (99)	Assessing suicidal ideation and behaviour	4
Reasons for Living Inventory, (RFL), (100)	Evaluating beliefs and expectations against suicidal behaviour. Validated in Spanish (101)	48
Plutchik Suicide Risk Scale (102)	Assessing the risk of suicide. Validated in Spanish (103)	15
Plutchik Impulsivity Scale (IS), (104)	Assessing the tendency to be impulsive. Validated in Spanish (105)	15
Barratt Impulsiveness Scale (BIS), (106)	Impulsivity. Validated in Spanish (107)	30
Buss-Durkee Hostility Inventory (BDHI), (108)	Aggression. Validated in Spanish (109)	75

Ref: reference, No: number.

Source: Prepared by authors

Table 12. Observer-reporting tests for assessing suicide risk or related aspects

Name (ref)	Purpose	No. of items
Risk of Repetition Scale (RRS), (110)	Measures the risk of recurrence in the year following an attempt	6
Edinburgh Risk of Repetition Scale (ERRS), (111)	Estimates the risk of recurrence of suicidal behaviour	11
Suicide Assessment Checklist (SAC), (112)	Assesses the factors associated with the risk of suicide	21
Suicide Assessment Scale (SAS), (113)	Measures the risk of suicide	20
Modified Intent Score (MIS), (114)	Measures suicidal purpose after a suicide attempt	12
Risk Rescue Rating Scale (RRRS), (115)	Measures the lethality and intentionality of a suicide attempt	10
Risk of Suicide Scale (ROSS), (116)	List of criteria for assessing the risk of suicide	35
Risk Estimator for Suicide (117)	Estimates the risk of suicide	15
Index of Potential Suicide (IPS), (118, 119)	Assesses the risk of suicide by social and demographic variables	69
Risk of Suicide Questionnaire (RSQ), (120)	Assesses the risk of suicide. There is a Spanish version, validated in Mexico (121)	4
Semi-Structured Interview for Psychological Autopsy (SSIPPA), (122)	Retrospective evaluation of physical, psychopathological and social circumstances of a suicide. Validated in Spanish (123)	69
Columbia University Suicide Severity Rating Scale (C-SSRS), (124)	Assessment of suicidal ideation and behaviour. There is a Spanish version	15
Brown-Goodwin Aggression History Scale (AHS), (125)	Assesses aggressive behaviour	11
International Neuropsychiatric Interview (MINI), (126)	Orientation, detection and diagnosis of major psychiatric disorders, including the risk of suicide. There is a Spanish version (127)	6

Ref: reference, No: number.

Source: Prepared by authors.

Evidence summary

Risk Factors	
<i>Individual factors</i>	
1+	<p>Previous suicide attempts are the most important predictor of suicidal behaviour (42).</p> <p>Abuse of alcohol or other toxic substances has a significant role and is not only a risk factor but also a precipitating factor (42).</p>
2++	<p>Major depression is the mental disorder most commonly associated with suicidal behaviour, with a 20 times greater risk of suicide than in the general population (40).</p> <p>Other mental disorders (bipolar disorder or schizophrenia), (40).</p> <p>Psychological factors: hopelessness and cognitive rigidity (40).</p> <p>Age: Adolescence and old age are the times of life when most attempts and completed suicides occur (40).</p> <p>Gender: Men have higher rates of completed suicides and women more suicide attempts (40).</p> <p>Presence of chronic or disabling condition (2, 18).</p>
<i>Family and context factors</i>	
2++	<p>A family history of suicide increases the risk of suicidal behaviour (2, 40, 43), especially in females (2, 18) and for first degree family members (43).</p> <p>Social and environmental factors: lack of social support (40, 41), socioeconomic status and employment status (18, 40, 41).</p> <p>History of physical or sexual abuse: specifically, that produced during infancy has a consistent association with suicidal behaviour (2, 25, 40, 43).</p>
<i>Precipitating factors</i>	
2++	<p>Stressful life events: such as a personal loss (divorce, separation, death), financial loss (economic or employment), legal problems and negative events (conflicts and interpersonal relations) can be triggers for suicidal behaviour in people with other risk factors (2, 18, 40).</p> <p>Easy access to firearms, drugs or poisons increases the risk of suicidal behaviour, making the transition from ideation to suicidal behaviour easier (2, 18).</p>
3	<p>Bullying in adolescents has been associated with high levels of stress, as well as suicidal ideation and behaviour (25).</p>

<i>Protective factors</i>	
2++	<p>Personal</p> <ul style="list-style-type: none"> – Skill in resolving conflicts or problems – Self-confidence – Ability to maintain social and interpersonal relationships.
2++	<p>Social or environmental (18, 40, 43, 63):</p> <ul style="list-style-type: none"> – Strength and quality of family and social support – Social integration – Having religious beliefs and practices, spirituality or positive values.
Assessment of suicide risk	
3	The assessment of suicide risk is a fundamental part in the management and prevention of suicidal behaviour (65), both in primary care and specialised care.
3	The percentage of patients who undergo appropriate assessment following a suicide attempt varies between 60% (66) and 95% (67).
<i>Clinical interview</i>	
4	The clinical interview is an essential instrument in the assessment of suicide risk. This means starting from the interaction between the patient and the professional, so he can play an important role in reducing the risk of suicide (69).
4	Several factors that influence the clinical interview have been found, such as the setting, the circumstances, the time available, the conditions and the availability of the interviewee, as well as the style, experience and training of the interviewer (70).
4	The WHO programme SUPRE published recommendations for practitioners on how to ask about the different aspects of suicidal ideation and behaviour (15).
3, Q	Patients expressed greater satisfaction when professionals involved them in the treatment decisions and explained the objectives and purpose of the evaluation during the clinical interview (75).
4	The information required for assessing the risk of suicide may come from the patient directly or from other sources, such as close family, friends and other health professionals or caregivers (36, 44).
<i>Evaluation scales</i>	
4	Psychometric tests may be an additional aid to the interview and clinical judgment, but should never replace them (9).
2++	<p>Of the reviewed scales, those which have demonstrated suitable properties for the assessment of suicide risk are the following (87):</p> <ul style="list-style-type: none"> – Beck Hopelessness Scale (80) – Beck Scale for Suicidal Ideation (94) – Beck's Suicide Intent Scale (95) – Item on suicidal behaviour from the Beck Depression Scale (86) – Item on suicidal behaviour from the Hamilton Rating Scale for Depression (97).

4	Despite not being validated in Spain and having no studies demonstrating their psychometric properties, the scales SAD PERSONS (89) and IS PATH WARM (92) may be useful for their ease of application in the evaluation of patients with suicidal behaviour.
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Recommendations

D^{CPG}	After suicidal behaviour, adequate psychopathological and social assessment is always recommended, including psychological and contextual features for the patient, as well as an evaluation of risk and protective factors for suicidal behaviour.
✓	Health professionals involved in the care of patients with suicidal behaviour should have adequate training to enable them to evaluate the presence of risk factors for suicidal behaviour and record the patient's risk profile.
D^{CPG}	All the information collected during the evaluation process should be properly recorded in the medical record.
Q	Professionals should explain the purpose of the evaluation to patients and their relatives, and try to involve them as an active part of the therapeutic process.
✓	Communication of the patient's symptoms, thoughts and feelings associated with suicidal behaviour should be encouraged from the start of the clinical interview, and the patient and his relatives should be encouraged to be involved in the decision-making process.
D^{CPG}	It is advisable to have patient information from other sources, including family, and friends, as well as other health professionals or caregivers.
D	The clinical interview should be directed towards the collection of objective, descriptive and subjective information (patient's narrative, thoughts and ideas) and should be adapted to its objectives: regarding the setting, circumstances, time available, conditions of the interviewee and preparation of the interviewer.
D^{CPG}	The estimation of suicide risk of a patient must be made by a professional clinical judgment, taking into account the presence of risk and protective factors.
A B C	<p>The following should mainly be considered in assessing a suicide risk:</p> <ul style="list-style-type: none"> – Presence of previous suicide attempts and substance abuse – Presence of mental disorders, and specific symptoms such as hopelessness, anxiety, agitation and severe suicidal ideation (recurrent thoughts of death every day, and most of the time), as well as stressful events and the availability of methods. – Risk factors associated with repetition, physical illness, chronicity, pain or disability, family history of suicide, social and environmental factors and a history of suicide in the environment.

D	The clinical interview should not be replaced by the use of self- and observer-reporting scales, although they can contribute additional information in the evaluation.
C	Of the different scales available, the ones recommended are Beck's Hopelessness, Suicidal Ideation and Suicide Intent scales, as well as the items on suicidal behaviour from the Beck Depression Inventory and the Hamilton Rating Scale for Depression.
D	Although not validated in Spain, the SAD PERSONS and IS PATH WARM scales are also recommended for their ease of application.
C	When assessing a patient with multiple suicide attempts, it is recommended to evaluate the causes or precipitants of each of them independently.
✓	Any negative attitudes towards people with repeated suicidal behaviour should be avoided, encouraging professional care based on respect and understanding for these patients.

5. Assessment and management of suicidal ideation and behaviour in primary care

Key questions:

- What is the approach to suicidal ideation in primary care?
- How is a suicidal behaviour assessment performed in primary care?
- When is a patient with suicidal ideation or a suicide attempt referred from primary care to another care level?

Primary care professionals are extraordinarily important in the assessment and management of suicidal behaviour, due to the relationship of trust they usually have with their patients, which in most cases has developed over many years (128). Previous contact with a primary care physician is frequent before a suicide. Thus, 75% of people with such an episode contacted their doctor in the year beforehand and 45% in the month beforehand; while only one in three contacted their mental health service in the previous year and one in five for the previous month (129, 130).

Patients evaluated in this area can be classified into three types: 1) Those who have survived a suicide attempt, 2) Those who come to the consultation expressing suicidal ideation, and 3) Those with suicidal ideation but who have still not verbally stated this (131).

Moreover, the health care provided in primary care will depend on factors such as the scope of care (rural or urban), the experience of the health professionals involved and prior knowledge of the patients themselves (53).

5.1. Addressing suicidal ideation in primary care

It has been suggested that a reduction in the suicide rate can be managed only if the ability of primary care physicians to recognize and treat mental disorders improves (132). Therefore, the main preventive measure for suicidal behaviour would be the training of professionals in the diagnostic and psychotherapeutic approach to the clinical interview (133, 134).

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Importantly, talking about suicide with patients with detected or communicated suicidal ideation can ease their anxiety and help them feel better understood, without increasing the risk of triggering suicidal behaviour. It must also be borne in mind that a patient talking about suicide does not eliminate the possibility that it will be committed (134).

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Table 13 summarises the main actions that the WHO proposes for reducing suicidal ideation (15, 74).

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Table 13. Recommendations for dealing with suicidal ideation

WHAT TO DO	WHAT NOT TO DO
– Listen, empathise and remain calm	– Ignore it
– Show support and concern	– Show dismay
– Take the situation seriously and assess the degree of risk	– Say that everything will be fine
– Ask about previous attempts	– Challenge the person to move forward
– Explore options other than suicide	– Make the problem seem trivial
– Ask about suicide plan	– Give false assurances
– Save time by agreeing a “no suicide pact”	– Swear to secrecy
– Identify other means of support	– Leave the person alone
– Restrict access to lethal means	
– Communication between professionals	
– If the risk is high, stay with the person	

Source: Modified from WHO (15, 74)

It is not easy to ask patients about their suicidal thoughts. Questions should be formulated gradually without being demanding or coercive, in a warm and sympathetic manner (134, 135).

The WHO has made recommendations on how to assess suicide risk in primary care, see section 4.2.1 and Table 4, (15, 74).

Table 14 contains a series of WHO recommendations in this regard (15,74).

The most important points to be evaluated in a patient with suicidal ideation are the following (131, 135):

- Social and demographic factors
- Associated mental disorders
- Previous attempts
- Family history of suicidal behaviour or mental disorder.

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If the patient has suicidal ideation and/or planning, the risk level of this potentially suicidal person will need to be established (15).

The following is required when making an intervention with these patients:

- Prescribing drugs which are safe if overdosed
- Prescribe containers with the fewest tablets possible
- Advocating containment measures with the patient and family:

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- Explain the need for controlled custody and administration of the medication by the family.
- Constant accompaniment by family members, as well as restricting access to lethal methods, in particular those considered by the patient.
- Acceptance by the patient and family of the need for follow-up and referral to the mental health services.

In many cases, patients who want to die by suicide may deliberately deny these ideas. Thus, sudden changes in the attitude of the person being evaluated (e.g. an agitated patient who suddenly becomes calm, or one who is normally uncooperative becomes cooperative) should be considered as a potentially misleading or false improvement and that a decision to commit suicide has been taken.

Table 14 contains recommendations from the WHO suicide prevention programme SUPRE on the main aspects to be considered when a patient has suicidal ideation and/or is planning suicide. They are addressed to primary care staff in general, and not just medical or nursing staff, and help to graduate the level of risk a person may present for potentially suicidal behaviour (15).

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Table 14. Recommendations in primary care according to the level of suicide risk

Risk	Recommendations
Low (presence of suicidal ideation without planning)	<ul style="list-style-type: none"> – Offer emotional support – Work through the suicidal feelings – Focus on the positive aspects of the person and talk about evidence of problem solving skills from the past – Refer the person to a mental health professional – Regular follow-up
Intermediate (suicidal ideation and planning, but not immediate)	<ul style="list-style-type: none"> – Provide emotional support, work through the person’s suicidal feelings and focus on the positive aspects of the problem-solving skills of the person – Explore alternatives to suicide – Agreeing a "no suicide" contract (i.e. get the person to promise not to carry out the suicide): <ul style="list-style-type: none"> • Without contacting health professional beforehand • For a specific period of time – Referral to mental health professional – Contact the family, friends and colleagues, and enlist their support
High (immediate plan devised and the means to carry it out)	<ul style="list-style-type: none"> – Stay with the person. Never leave the person alone – Talk quietly to the person and distance the means of suicide – Make a “no suicide” contract – Refer the patient immediately to hospital

Source: Modified from WHO (15)

5.2. Assessment of suicidal behaviour in primary care

After a suicide attempt, the physical condition of the patient should first be assessed, then a decision made on any need for referral to a hospital for treatment of the injuries (53).

Expert
opinion
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If such a referral is not required, the next to be assessed are the mental capacity, the existence of serious mental illness and the mood of the patient. In addition, a psychosocial assessment that includes an assessment of needs (identification of psychological and environmental risk factors that may explain the attempt) will need to be done, along with an assessment of the risk of future episodes (identification of a number of predictors of suicidal behaviour).

Interviews must be done calmly and openly in an appropriate place, with an adequate level of privacy and empathy, to facilitate the expression of suicidal intent. The risk must not be minimised in repeated episode cases.

The following are the most important points to assess (131, 135):

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- Features of the attempt: objective and perceived danger to the patient, objectives of behaviour, planning, possibility of rescue, death wish, external support, post-attempt attitude.
- Previous attempts at self-harm.
- Evaluation of social and demographic factors.
- Associated mental disorders.
- Family history (attempts and/or completed suicides in the family, family mental disorders).

Persistence or increased intensity of suicidal ideation or planning may be suggestive of an imminent suicide risk, especially within the last month or year; also, as might a patient showing agitation, violence, distress or being actively uncommunicative (negativism) at the time of this evaluation (136).

5.3. Criteria for referral from primary care

Certain warning signs in a patient with suicidal ideation may be relevant for making decisions. Thus, an urgent referral from primary care to the mental health services will be performed when the patient displays the following (53, 74):

Expert
opinion
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- Presence of severe mental illness
- Recent serious suicidal behaviour
- A prepared suicide plan
- Expression of suicidal intent
- History of previous attempts
- Social and family situation at risk or lack of support
- If in doubt about the severity of ideation or the risk of an immediate attempt, refer to the reference mental health institution, if direct contact is available.

In a suicidal behaviour episode, the urgency of referral depends on the clinical picture and medical history of the patient. It must be remembered that the severity or apparent triviality of the physical aspects of a self-harm episode do not necessarily correlate with the severity of the mental disorder. If there is any doubt about the severity of an episode of self-harm, you should contact the reference emergency services or the mental health network and assess the need for referral for this reason (53).

Physical containment and surveillance for high risk of injury or the urgent need for involuntary transfer for patients with a clear suicide risk must be considered (134).

Referral from primary care to reference hospital emergency service is urgent in the following cases (53, 74):

Expert
opinion
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- Need for medical treatment of injuries produced, which may not be met in primary care
- Voluntary intoxication with decreased level of consciousness (following stabilisation of the patient).

Referral from primary care to the mental health² services is urgent in the following cases (53, 74):

Expert
opinion
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- High lethality of the plan, regardless of the outcome
- Presence of severe mental illness or confused state
- Recent severe self-harm behaviour
- Repeated previous attempts
- Social and family situation at risk or lack of support
- If in doubt about the severity of the episode or recurrence risk.

Preferential transfer to the mental health services (within a week) may be considered for patients with suicidal ideation or behaviour without any of the above criteria for immediate referral if all of the following conditions are met:

- Relief after the interview
- Expression of intent to control suicidal impulses
- Acceptance of treatment and containment measures agreed
- Absence of clinical risk factors: hallucinations, delusions, moderate/severe depression
- Effective social and family support

The reason for referral to the reference mental health unit and arrangement of a follow-up appointment in primary care should be explained to the patient, to ensure that the relationship with the patient continues (134).

2. Depending on the functional organisation, the mental health emergency services may be in the reference hospital emergency department or at another location.

Finally, once an episode of suicidal behaviour has occurred, it is important to ensure proper communication between the mental health services and primary care physician. The latter is not always informed of the events surrounding a patient, despite playing a key role in monitoring patients and patients often being seen in consultation quickly after suffering a suicidal behaviour episode, (137).

Evidence summary

Addressing suicidal ideation in primary care	
4	An effective way of reducing suicide rates is to improve the ability of primary care physicians to recognize and treat mental disorders (132).
4	Talking about suicide with patients with detected or communicated suicidal ideation can ease their anxiety and help them feel better understood, without increasing the risk of triggering suicidal behaviour. It must also be borne in mind that a patient talking about suicide does not eliminate the possibility that it will be committed (134).
4	Different organisations have prepared recommendations on key actions to take or avoid in a suicidal ideation situation (15, 74), as well as how to ask questions empathetically (134, 135).
4	If the patient has suicidal ideation and/or planning the level of risk needs to be graduated (15).
4	The most important points to be evaluated in a patient with suicidal ideation are the following (131, 135): <ul style="list-style-type: none"> – Social and demographic factors – Associated mental disorders – Previous suicide attempts – Family history of suicidal behaviour or mental disorder.
Assessment of suicidal behaviour in primary care	
4	After a suicide attempt, the physical condition of the patient should first be assessed, before a decision is made on any need for referral to a hospital for treatment of the injuries (53).
4	The following are the most important points to assess in an episode of suicidal behaviour in primary care (131, 135): <ul style="list-style-type: none"> – Features of the attempt: objective and perceived danger to the patient, objectives of behaviour, planning, possibility of rescue, death wish, external support, post-attempt attitude. – Previous attempts at self-harm. – Evaluation of social and demographic factors. – Associated mental disorders. – Family history (attempts and/or completed suicides in the family, family mental disorders).

Patient referral criteria from primary care	
4	<p>In general, an urgent referral from primary care to the mental health services for a patient with suicidal ideation is performed in cases of (53, 74):</p> <ul style="list-style-type: none"> – Presence of severe mental illness – Recent serious suicidal behaviour – A prepared suicide plan – Expression of suicidal intent – Social and family situation at risk or lack of support – If in doubt about the severity of ideation or the risk of an immediate attempt
4	<p>In an episode of suicidal behaviour, referral from primary care to the reference hospital emergency department is urgent in the following cases (53, 74):</p> <ul style="list-style-type: none"> – Need for medical treatment of injuries produced, which may not be met in primary care – Voluntary intoxication with decreased level of consciousness (following stabilisation of the patient)
4	<p>Referral from primary care to the mental health services is urgent in the following cases (53, 74):</p> <ul style="list-style-type: none"> – High lethality of the plan, regardless of the outcome – Presence of severe mental illness – Recent severe self-harm behaviour – Repeated previous attempts – Social and family situation at risk or lack of support – If in doubt about the severity of the episode or recurrence risk.

Recommendations

D	Training is recommended for primary care physicians in the assessment and treatment of suicidal ideation and behaviour, as well as for implementing specific programmes about their diagnosis and psychotherapeutic approach, where appropriate.
✓	It is recommended to investigate suicidal thoughts in patients who are suspected of having suicidal ideation and who have suicide risk factors. This does not increase the risk of suicide.

D	It is recommended that patients are asked about their thoughts of suicide gradually. The interviewer must not be demanding or coercive, but have a warm and empathic approach.
✓	If the presence of suicidal ideation is confirmed, specific questions aimed at assessing the real possibility of suicide (e.g. frequency and seriousness of ideas, degree of planning) will be needed.
✓	<p>The following is required when dealing with patients with suicidal ideation or suicide risk:</p> <ul style="list-style-type: none"> – Prescribing drugs which are safe if overdosed – Prescribe containers with the fewest tablets possible – Explain the need for controlled custody and administration of the medication by the family. – Constant accompaniment by family members, as well as restricting access to lethal methods. – Acceptance by the patient and family of the need for follow-up and referral to the mental health services.
D	After a suicide attempt in the field of primary care, the physical condition of the patient should first be assessed, before any decision is made on the need for referral to a hospital for treatment of the injuries.
D	<p>After a suicide attempt in the field of primary care, an assessment including the following is recommended, where possible:</p> <ul style="list-style-type: none"> – Features of the attempt – Previous attempts at self-harm – Social and demographic factors – Associated mental disorders – Family history
D	<p>An urgent referral to the mental health services for a patient with suicidal ideation is recommended in the following cases (53, 74):</p> <ul style="list-style-type: none"> – Presence of severe mental illness – Recent serious suicidal behaviour – A prepared suicide plan – Expression of suicidal intent – Social and family situation at risk or lack of support – If in doubt about the severity of ideation or the risk of an immediate attempt

<p>D</p>	<p>In cases of suicide attempt, the urgent referral to a hospital emergency department is recommended if:</p> <ul style="list-style-type: none"> – There is a need for medical treatment of the injuries produced, which may not be met in primary care – Voluntary intoxication with decreased level of consciousness or agitation (after stabilisation of the patient) has occurred <p>In cases of suicide attempt, and in the absence of the above, the urgent referral to the mental health services is recommended if there is a:</p> <ul style="list-style-type: none"> – High lethality of the plan, regardless of the outcome – Presence of severe mental illness – Recent severe self-harm behaviour – Previous suicide attempts – Social and family situation at risk or lack of support – If in doubt about the severity of the episode or risk of recurrence
<p>✓</p>	<p>A transfer to the mental health services (within a week) may be considered for patients with suicidal ideation or behaviour without any of the above criteria for immediate referral if all of the following conditions are met:</p> <ul style="list-style-type: none"> – Relief after the interview – Intention to control suicidal impulses – Acceptance of treatment and containment measures agreed – Effective social and family support
<p>✓</p>	<p>All patient information will be recorded in the clinical history as well as the reasoning behind any referrals.</p>
<p>✓</p>	<p>After an episode of suicidal behaviour, proper communication between the mental health services and primary care physician is recommended.</p>

6. Assessing and managing patients with suicidal behaviour in the Emergency Department

Key questions:

- How is the level of risk stratified for patients attending the emergency department for suicidal behaviour?
- What other aspects, apart from the physical, should be assessed in patients attending the emergency department for suicidal behaviour in order to make immediate decisions?
- What training should emergency department physicians receive in the recognition, assessment and management of individuals with suicidal behaviour?
- What are the psychiatric hospitalisation criteria for a patient with suicidal behaviour?

The emergency services, both inpatient and outpatient, are highly relevant in relation to suicide, because they are often the first places that patients with suicidal ideation or behaviour make contact with in the health system (138, 139), thus contributing not inconsiderably to their workload.

There are three different groups of patients with significant risk of suicidal behaviour that attend the Emergency Department. Those who:

- Express suicidal ideation or attend after a suicide attempt.
- Have mental disorders, although with no known suicidal intent.
- Have a specific physical pathology, but who are at risk of hidden or silent suicide.

A major challenge for the emergency services, such as healthcare providers, is to be actively involved in the integration of these patients in a therapeutic process. Thus promoting the monitoring, screening, treatment and referral of these patients at high risk of suicide, and trying to involve them in prevention and outpatient management programmes. This requires closer cooperation between emergency and mental health services (140).

6.1. Classification of patients (triage) in the Emergency Department

Emergency departments have a responsibility to make the initial assessment of all patients seeking healthcare and to prioritise according to severity. In recent years, computer systems have been developed using risk stratification models to enable rapid decision-making. These systems prefer sensitivity to specificity, i.e. they identify most cases which are serious, although with a small proportion of negative cases.

Triage concept and models

Triage is defined as the systematic clinical review of all patients entering the emergency department, with the aim of assigning treatment priority and assessments using predetermined criteria and a classification method to determine the level of emergency. Its implementation requires adequate resources, both material and human, and a valid, useful and reproducible classification scale (141).

Expert
opinion
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It has been shown that there are certain problems in the organisation and management of the quality of the accident and emergency services, which are sometimes seen in the actual classification of the patients who arrive or are referred. Thus, it can be seen that there is no uniformity in the type of professional who comes first into contact with the patient; no triage classification protocols are used; and no standardised and universal triage system is implemented. Therefore, the availability of a structured triage model in a hospital emergency department is an absolute necessity in a quality healthcare system (142).

The triage systems implemented in Spain are based on five priority levels, and their aim is for them to be safely applied within structured triage models. The different triage scales list the prioritisation categories with the degree of urgency/severity and the required care response from professionals, especially regarding the medical attendance time or initial care. The allocation of a triage level often conditions subsequent actions (141).

The two main triage systems used in Spain are described below.

Manchester Triage System (MTS), (143):

It has an electronic format and is based on closed symptomatic categories or clinical situations. It incorporates key discriminating factors to determine the emergency level of patients presenting with similar symptoms or those who can be classified within the same symptomatic category.

Expert
opinion
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The classification result corresponds to the severity level table in Figure 1, which shows a colour coding and maximum patient waiting time.

Figure 1. Severity levels in triage system

Level	Name	Colour	Waiting time
1	Immediate	Red	0 min
2	Vey urgent	Orange	10 min
3	Urgent	Yellow	60 min
4	Standard	Green	120 min
5	Non-urgent	Blue	120 min

Source: Manchester Triage System

Andorra Triage Model (MAT), (144):

This recognizes 56 symptom and two key discriminant categories: vital signs and pain level. Each symptom category has severity scales and specific aspects related to the complaint. For suicidal behaviour, the symptom categories that can be used are:

Expert
opinion
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- Mental disorder: including general algorithms, constant scales and vital signs.
- Poisoning: includes general algorithms and e.g. cardiac and respiratory arrest scales, shock, coma and mental disorders.

Professionals performing triage are usually nurses with qualifications based on MTS or MAT, established by specific and accredited training courses containing theoretical and practical modules.

Triage of patients with suicidal behaviour

Patients presenting at an emergency department with suicidal behaviour are of many types, ranging from those having a life-threatening situation to those who may even try to flee the centre because of their mental disorder.

The first two measures to be taken for a patient with suicidal behaviour are an immediate assessment of the clinical situation and the establishment of an effective treatment that minimises the risk of death or disability. In general, immediate and high quality care is guaranteed for the most serious patients; however, as the degree of urgency decreases, the immediacy and quality of the care depends more on an adequate relationship between supply and demand.

Normally, suicidal behaviour does not require immediate attention so, regardless of the triage system used and to realize the maximum possible degree of need for immediate attention, the following questions should be answered and documented properly: 1) Is the patient physically fit enough to wait? 2) Is there an immediate risk of suicide? 3) Should the patient be monitored? 4) Can the patient wait to be seen by the doctor? (72).

Expert
opinion
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Horowitz et al. (120) developed the Risk of Suicide Questionnaire (RSQ) to detect the risk of suicidal behaviour in children and adolescents by unskilled personnel. The original English version proved to be an instrument with high sensitivity and specificity. The Spanish version, validated in Mexican children and adolescents (121), obtained moderate internal consistency and moderate-high correlation with constructs linked to suicide risk, such as hopelessness. It consists of 14 Lickert-type questions with 7 points (the higher the score, the greater the suicide risk) and there is a short version with just four items related to current suicidal behaviour, past suicidal ideation and self-destructive behaviour and current stress factors.

Qualitative
study
Q

However, this questionnaire has also been used by nurses to detect suicide risk in adults and adolescents who attend an emergency department (145).

Case series
3

There is also a 14-item tool for triage of suicide risk specific for paediatric patients, based on the Horowitz questionnaire (146).

Qualitative
study
Q

In the care of patients with suicidal behaviour, the fundamental goal of triage would be for all patients to be classified at least level 3 (yellow) in the Manchester Triage System, i.e. to ensure they receive attention within the first hour of arrival at the emergency department. Therefore, the short version of the Horowitz et al. questionnaire has been proposed (120), to be prepared by the emergency department triage staff for those who attend for suicidal behaviour and for whom there is no serious impairment in physical condition. Using the Dieppe et al. article (146) as a reference, certain colour codes have been assigned so that patients would be classified as yellow or orange, depending on their responses (Figure 2).

Figure 2. Questions to ask in triage for suicidal behaviour

Triage of patients with suicidal behaviour		
Questions to ask	Yes	No
Are you here because you intentionally tried to hurt yourself?		-----
Have you had thoughts related to suicide during the last week?		
Have you ever considered killing yourself in the past?		
Has something very stressful happened to you recently?		
The patient need only have one orange answer to be classified with this colour.		

Source: Prepared by the authors from Dieppe et al. (146)

6.2. Evaluation of patients with suicidal behaviour in emergency

Place of the assessment and safety measures

The assessment must be conducted in an atmosphere of privacy, confidentiality and respect. If possible, there should be a specific location for this with an adequate security system: the door must open from both sides and should not be able to be locked from the inside.

Patients should be asked to hand over any potentially harmful object, such as sharp objects, belts, razors or cords. There should be no drugs available to the patient. If the person has a dangerous weapon and is not willing to give it in, security personnel and/or police should be notified. There should be a specific protocol on how to register and remove potentially harmful objects from such patients (147).

Attitudes of emergency professionals to suicidal behaviour

Anyone who talks about suicide should always be taken seriously. The vast majority of people who die by suicide have previously expressed suicidal ideas or have shown signs causing alarm to family or professionals (148, 149).

A systematic review of qualitative studies indicates the existence of a negative or ambivalent attitude of emergency department and intensive care unit staff to patients attending for suicide attempt (75).

Qualitative
study
Q

One possible explanation could be that the professional training of general hospital emergency service staff is usually focused primarily on the diagnosis and treatment of somatic diseases; so sometimes patients with psychological symptoms can produce feelings of helplessness and generate negative attitudes or indifference (150, 151). Furthermore, job stress increases this negative attitude toward patients with suicide attempts, especially to those with repeated drug poisoning (152).

Case series
3

People with repeated suicidal behaviour can provoke unhelpful attitudes in health care staff that hinder subsequent suicidal behaviour management. People who threaten their own lives must always and without exception be considered as people who feel they have a serious problem, who should be treated in the most appropriate way and helped as much as possible.

This need for a proper attitude from health workers can be compromised by certain patients who say they are suicidal or directly threaten suicide if they do not get what they want (e.g. to be admitted to hospital, receive permission to take time off work due to sickness or disability or recover from an affective loss). These are delicate situations that challenge professional expertise in preventing suicidal behaviour, whose risk cannot be underestimated, as well as preventing reinforcement of dysfunctional behaviour, with its subsequent recurrence.

Assessment of patients with suicidal behaviour

Proper attention to patients with suicidal behaviour can only be achieved through the coordination of all professionals involved in their care. Patients attending an emergency department are often assessed in a short period of time by different staff, in a hurried and sometimes chaotic environment in unsuitable places without intimacy; which does not contribute to a sensitive assessment of mental health problems in a given patient (153).

As well as assessing any changes in the physical condition, the hospital emergency doctor should always perform a basic social and psychopathological assessment. This includes a needs assessment (identification of psychological and environmental factors that could explain the suicide behaviour) and risk assessment (identification of a number of factors that predict suicidal behaviour), (153).

Expert
opinion
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The duties of the hospital emergency medical care team in a patient with suicidal behaviour are as follows (72, 154):

Expert
opinion
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- Preparation of a proper history with special emphasis on the following:
 - Personal and family history of mental disorders
 - Previous history of suicidal behaviour (individual and family)
 - Abuse of alcohol or drugs
 - Personal and social situation, as well as stressful events
- Assessment of any altered level of consciousness and effect on mental capacity
- Assessment of severe mental illness
- Assessment of mood
- Presence of suicidal thoughts or plans
- Evaluation of suicide attempt: motivation, nature and seriousness of intent and use of violent methods
- Assessment of immediate suicide risk
- Assessment of the ability to give informed consent
- Determining when specialist evaluation is needed
- Specific provisions for monitoring, if not referred to the specialist.

The identification of factors (see section 4) that increase or decrease the level of a suicide risk is of great importance, since the level of risk increases with the number of factors present, although there are some which are more important than others (2, 36).

Expert
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Another important predictor is the degree of lethality of the suicide attempt. It has been noted that the use of suicide attempt methods other than drug intoxication or performing incised wounds, and particularly hanging, are associated strongly with a subsequent completed suicide. This should be taken into account when assessing the risk of suicide and care planning following suicidal behaviour (155).

Cohort study
2+

The assessment of a patient with suicidal behaviour is not always successful. For example, a study in Spain found that only 22.5% of care reports for patients with suicidal behaviour were adequately completed with 7 indicators considered as important (history of psychiatric care, previous suicide attempts, social or family support, suicidal ideation, suicide planning, reaction to the attempt and degree of medical damage as a result of the attempt), (68).

Case series
3

One way to improve the assessment would be through the systematic collection of the data considered most relevant, preferably by using standard forms and properly documenting all the previous information in the medical record (156).

Case series
3

Table 15 shows the most important aspects to be reflected in the assessment of patients with suicidal behaviour.

Assessment by a mental health specialist

It is generally accepted that patients with a suicide attempt should be assessed by a psychiatrist before being discharged from the emergency department. It is therefore essential that such services have access to mental health specialists to carry out a proper psychiatric assessment. Given the complexity of the aetiology and response to give these patients and their families, in those services where other professionals are available for urgent care as a social worker and clinical psychologist, it would be desirable to develop a multidisciplinary and integrated response model that meets all these demands (157).

The evaluation of a patient with suicidal behaviour by a mental health specialist can be done in the emergency department itself or later in external consultation. If the patient is not evaluated by a specialist in the emergency department, the reasons must be recorded in the medical record.

Referral to a specialist should be performed when the patient is fully conscious and an appropriate psychopathological assessment can be performed.

The powers of the mental health specialists would be as follows (72):

- Perform a diagnosis
- Assess repeat suicidal behaviour
- Establish an observation and intervention plan for the patient
- Contact the appropriate services to carry out agreed plan
- Establish which patients are at increased risk of damage to themselves or others, and who must therefore be better monitored
- Implement treatment plans including psychopharmacological, psychotherapy and social and family interventions.

Expert
opinion
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Table 15. Data to be collected by the hospital emergency physician to assess a patient with suicidal behaviour

Personal details	<p>Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female</p> <p>Age: _____</p> <p>Civil status: <input type="checkbox"/> Single <input type="checkbox"/> Married/Partner <input type="checkbox"/> Separated/Divorced <input type="checkbox"/> Widowed</p> <p>Occupation: <input type="checkbox"/> Work/study <input type="checkbox"/> Unemployed <input type="checkbox"/> Retired <input type="checkbox"/> Others _____</p>
Risk factors	<p>History of mental disorders:</p> <p><input type="checkbox"/> Major Depression <input type="checkbox"/> Bipolar disorder <input type="checkbox"/> Psychotic disorders <input type="checkbox"/> Anxiety</p> <p><input type="checkbox"/> Food behaviour disorder <input type="checkbox"/> Alcohol/drug abuse</p> <p><input type="checkbox"/> Personality disorder, impulsivity, aggression</p> <p>Previous suicide attempts: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Recent suicidal ideation: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Physical illness, pain, disability or chronic condition: <input type="checkbox"/></p> <p>Previous family history of suicide: <input type="checkbox"/></p> <p>Stressful life events: <input type="checkbox"/></p> <p>Social and environmental factors:</p> <p><input type="checkbox"/> Lack of social/family support <input type="checkbox"/> History of physical or sexual abuse</p> <p><input type="checkbox"/> History of harassment</p>
Suicide attempt features	<p><input type="checkbox"/> Poisoning by drugs, specify _____</p> <p><input type="checkbox"/> Other chemical poisoning, specify _____</p> <p><input type="checkbox"/> Physical damage (cuts, etc) <input type="checkbox"/> Other methods, specify _____</p> <p>Planning suicidal behaviour <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Lethality of suicidal behaviour: <input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low <input type="checkbox"/> Very Low</p> <p>Attitude to current suicidal behaviour:</p> <p><input type="checkbox"/> Relief/repentance <input type="checkbox"/> Sorry for non-fatal outcome</p>
Clinical evaluation	<p>Any altered level of consciousness: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Decision making affected: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Any mental illness:</p> <p><input type="checkbox"/> Yes, specify _____ <input type="checkbox"/> No</p> <p>Mood, specify: _____</p> <p><input type="checkbox"/> Depression <input type="checkbox"/> Anxiety <input type="checkbox"/> Euthymia</p> <p><input type="checkbox"/> Euphoria <input type="checkbox"/> Dysthymia <input type="checkbox"/> Other, specify _____</p> <p>Any future plans for suicide: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Current social or family support: <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
Conclusions	<p>Immediate suicide risk: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Capacity to make decisions: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Need for psychiatric evaluation during the episode: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Immediate <input type="checkbox"/> In 24 hours</p> <p><input type="checkbox"/> In a week <input type="checkbox"/> Other period, specify: _____</p>

Source: Prepared by authors

Suicide risk assessment in the emergency department

It is difficult to predict the risk of recurrence of new episodes of suicidal behaviour due to the low specificity of the risk factors associated with it. Therefore, tools to help are needed to identify suicide risk and thus for the overall clinical assessment by the physician (158).

As discussed in the Assessment section, the SAD PERSONS scale is widely used and helps to record suicide risk factors and make decisions about whether to admit the patient to hospital or not (89). Although this scale has not been validated and has no studies to evaluate its psychometric properties in Spain, it has been recommended for its educational content and ease of application (90) and also for use in primary care (91).

Expert
opinion
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Cooper et al. (159) developed a simple clinical tool for use in patients presenting to an emergency room for suicidal behaviour (Table 16). It had a sensitivity of 94% and a specificity of 25% in identifying patients with high or low risk of recurrence of suicidal behaviour within the following six months. The authors consider that the application of this test could facilitate the assessment of patients with suicidal behaviour in the emergency department and focus psychiatric resources on high-risk patients.

Qualitative
study
Q

Table 16. Manchester self-harm test questions for suicidal behaviour

<ul style="list-style-type: none">– Do you have a history of suicidal behaviour?– Have you ever had psychiatric treatment before?– Are you currently undergoing psychiatric treatment?– Is the current episode due to a benzodiazepine overdose?
A positive response to any of the questions classifies the patient as “high risk” of recurrence of suicidal behaviour.

Source: Adapted from Cooper et al. (159)

A subsequent study by the same authors (160) gave favourable results when comparing the sensitivity and specificity of the test to the overall risk assessment of suicidal behaviour by mental health specialists or a hospital emergency department (Table 17). The authors concluded that patients with a low risk of further suicidal behaviour need a psychiatric evaluation, but that it could be performed on a deferred outpatient basis.

Qualitative
study
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Table 17. Comparison of suicidal risk assessment by clinicians and by the Manchester test

Clinical assessment*	Manchester Test
– Sensitivity: 85% (CI 95%, 83-87)	– Sensitivity: 94% (CI 95%, 92-96)
– Specificity: 38% (CI 95%, 37-39)	– Specificity: 26% (CI 95%, 24-27)
– Positive predictive value: 22% (CI 95%, 21-23)	– Positive predictive value: 21% (CI 95%, 19-21)
– Negative predictive value: 92% (CI 95%, 91-93)	– Negative predictive value: 96% (CI 95%, 94-96)

* Especially in S. Mental Health services or Hospital Emergency department
 Source: Cooper et al. (160)

However, this test does not assess key aspects such as the degree of lethality of the attempt, the planning, the presence of a current mental disorder, so it might be valid for a first suicide attempt (types I-II), but not for suicidal behaviour: for example, a patient with a first psychotic episode could rate zero, and be classified as a low risk of recurrence.

How to do deal with a patient with suicidal behaviour who wants to leave the emergency department before being assessed

If a patient with suicidal behaviour wants to leave the emergency department before an assessment of their condition can be carried out and attempts at persuasion to remain are unsuccessful, an attempt to assess the patient as soon as possible should be made, and appropriate measures taken, if deemed necessary, especially if the person continues to express suicidal intent. In some cases (risk of harming themselves or others), the appropriateness of using containment measures may even have to be assessed. It is important to note that patients who leave the emergency department before a proper assessment can be made have a high risk of recurrence of suicidal behaviour (147).

In cases where patients refuse to accept treatment that could save their life, it is very important to conduct an assessment of the competency to make decisions.

On leaving the hospital, the patient should receive both the treatment and monitoring plan in the mental health unit in writing, as well as the information needed about future assistance.

Quality of care for people with suicidal behaviour

It is fundamental that quality care is provided for people with suicidal behaviour, with possible improvements in the five areas summarised below (75):

- Communication between patients and staff: Greater consideration of the treatment of patients, providing information on their status and allowing them to participate in treatment decisions.
- Professional training for suicidal behaviour: Better information and specific training on the treatment of suicidal behaviour could improve the interaction between staff and patients.
- Empathy towards people with suicidal behaviour: Patients need to be heard and not judged and their treatment by staff should be natural, showing concern and giving them support.
- Access to specialist health care: More mental health professionals in hospitals and infrastructure improvements are needed for shorter waiting times.
- Information on suicidal behaviour for patients, caregivers and the general public: People with suicidal behaviour do not always understand what is happening or why they have behaved as they have. They often feel alone and so need to be provided with more information on suicidal behaviour and its prevalence. This should be extended to family members and caregivers and society at large, to reduce the stigma attached to this situation.

SR of
qualitative
studies
Q

6.3. Training medical staff in the emergency department

Staffs who are not specialists in mental health should receive appropriate training in the assessment of patients who present with suicidal behaviour. It has been shown that training in both the assessment and management of patients with suicidal behaviour improves staff attitudes, skills and safety when handling these patients, which correlates with the quality of the assessment and care provided (161).

A study that compared the psychosocial assessment of patients with suicidal behaviour in an emergency department, before and after a specific training session, showed an increase of 13% to 46% in the percentage of medical records deemed appropriate, and also improved communication between emergency service staff and mental health specialists (162). Case series
3

Another training programme in the assessment of suicidal behaviour also showed improvements in the management of patients by participants (primary care physicians, emergency services and mental health staff), (163). However, the suicide rates in that health area remained constant before and after the intervention, so one might conclude that programmes for training health personnel are not sufficient to reduce the rate of suicide among the population (164). Case series
3

The training of emergency medical staff in the care of patients with suicidal behaviour should include all aspects considered for their competence, and will include the following:

- Adequate training in assessing the patient's mental ability and mental status as well as mood
- Skills in detecting an immediate suicide risk
- Basic knowledge of the legal conditions for emergency medical situations, especially regarding informed consent for treatment and sufficient ability to handle an emergency in a non-consent situation.

Moreover, the emergency department physician training should meet the following requirements:

- Ensure that every professional who joins receives specific training in the emergency department within the first week of joining
- The training should have a specified duration and content
- The degree of skill required to care for these patients should be included.

6.4. Hospital admission criteria for patients with suicidal behaviour

Typically, the decision to hospitalise a patient after a suicide attempt is a complex process that depends on several factors, including the clinical severity of the episode, the suicide plan and its lethality, the patient's immediate suicide risk, the baseline psychiatric pathology, the presence of comorbidity and the presence of family or social support.

Several authors consider that these patients should be treated in the least restrictive way possible (36), although a key factor in deciding whether a person can be treated on an outpatient basis or in a hospital is safety. This is because, in general, patients with a higher suicidal intent are handled better in a hospital (78, 165, 166).

Expert
opinion
4

The CPG prepared by the *New Zealand Guidelines Group (NZGG)*, (78) considers the following factors:

SR of RCT
1+

- When hospitalisation is recommended:
 - Need for medical treatment of the suicidal behaviour
 - More intensive psychiatric treatment (e.g. acute psychosis)
 - Lack of adequate psychological and social support (167).
- When hospitalisation should be considered (168, 169):
 - When the therapeutic alliance and intervention in the crisis do not work, leading to persistent suicidal behaviour
 - When the patient has enough support to stay in the community.

RCT
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APA (36) prepared the following criteria for the hospitalisation of patients with suicidal behaviour (Table 18).

SR of different
study types 3

There are few studies examining the criteria for hospitalisation of patients with suicidal behaviour.

Baca-Garcia et al. (170) found that of the 47 demographic and clinical variables collected on 509 patients seen for suicidal behaviour, only 11 were significantly associated with hospitalisation (Table 19), with the most predictive being the intention to repeat a suicide attempt.

Case series
3

However, a later study by the same authors (171) using data mining re-analysed previous data and found a sensitivity of 99% and specificity of 100% with only five variables, which they suggested could be the predictive indicators for hospitalising a patient with suicidal behaviour:

Case series
3

- Consumption of drugs or alcohol during suicidal behaviour
- Being sorry that the suicide attempt had not been effective
- Lack of family support
- Being a housewife
- Family history of suicide attempts.

Table 18. Hospital admission criteria from the American Psychiatric Association

Variables associated with increased likelihood of hospitalisation	Variables associated with greater probability of being discharged from the emergency department
<p><u>Hospitalisation required</u> After a suicide attempt or aborted suicide attempt, if:</p> <ul style="list-style-type: none"> – Patient psychotic – Suicide attempt was violent, near-lethal or pre-meditated – Precautions were taken to avoid detection or redemption – Persistent ideation or planning – Patient regrets surviving – Patient is a man, over 45 years, especially with a recent onset of mental illness or suicidal ideation – Limited family or social support, including lack of a stable situation in life – Impulsive behaviour, severe agitation, poor rationality or rejection of help – Patient has an altered mental state after a toxic-metabolic status, infection or other aetiology requiring hospital study <p>In the presence of suicidal ideation with:</p> <ul style="list-style-type: none"> – Specific highly lethal plan – Significant previous suicide attempts <p><u>Hospitalisation may be required</u></p> <ul style="list-style-type: none"> – After a suicide attempt or aborted suicide attempt, except for circumstances when a hospitalisation is usually necessary <p>In the presence of suicide ideation with:</p> <ul style="list-style-type: none"> – Psychosis – Major psychiatric disorder – Previous attempts, particularly if they were medically serious – When a medical condition may have contributed (e.g. acute neurological disorder, cancer, infection) – No response or failure to cooperate in an outpatient or day hospital regime 	<ul style="list-style-type: none"> – Needing a supervisory regime due to medical treatment or electroconvulsive therapy – Need for skilled observation, clinical examination or diagnostic assessment that require a structured environment – Limited family or social support, including lack of a stable situation in life – Lack of proper doctor-patient relationship or inability to perform outpatient monitoring – In the absence of prior suicide attempts, ideation or plans, evidence from a psychiatric evaluation that suggests a high and increasing risk of suicide <p><u>Discharge from the emergency department with follow-up recommendations</u></p> <p>After a suicide attempt or with ideation/plans when:</p> <ul style="list-style-type: none"> – The suicidal behaviour is a reaction to precipitating events (e.g. failing an exam or personal difficulties), particularly if the patient's view of the situation has changed since arriving at emergency – Methods/plans and attempt of low lethality – The patient has a stable living situation and support – The patient is able to cooperate with recommendations for monitoring and, if possible, can contact the therapist if the patient is currently under treatment <p><u>Outpatient treatment may be more beneficial than hospitalisation</u></p> <ul style="list-style-type: none"> – When patients have chronic suicidal ideation and/or suicidal behaviour without any previous serious attempts, if they have a stable living situation and support and there is possibility of outpatient psychiatric care.

Source: American Psychiatric Association (36)

Table 19. Variables associated with hospital admission

Variables associated with increased likelihood of hospitalisation	Variables associated with greater probability of discharge from emergency
Intention of repeating suicidal behaviour	Realistic perspective of the future after suicidal behaviour
Plan to use a lethal method	Relief that the suicide attempt was not effective
Low psychosocial functioning before suicidal behaviour	Suicide method available but not used
Previous psychiatric hospitalisation	Believing the attempt might influence others
Suicidal behaviour in the previous year	Having family support
Planning for no-one to be able to save their life after suicidal behaviour	

Source: Baca-García et al. (170)

A Finnish study showed that 25% of 1198 suicide attempts treated were hospitalised, with the main criteria for psychiatric hospitalisation being advanced age, the presence of psychotic disorders or mood disorders, the absence of alcohol consumption before the suicide behaviour, physical illness, attempt on a weekday, previous treatment or psychiatric consultations and referral from the hospital which treated the suicide attempt (172).

Case series
3

A cross-sectional study evaluated 404 patients treated in hospital for suicidal behaviour showed that the method of suicidal behaviour, previous psychiatric history and a psychiatric diagnosis contributed significantly to the decision to perform outpatient treatment or hospitalisation. In particular, methods of suicidal behaviour other than drug poisoning or cutting injuries (which imply more aggressive methods) were associated with hospital admission. Patients with a history of psychiatric admission and a current diagnosis of schizophrenia or psychotic disorders were admitted more frequently; while patients diagnosed with adjustment or neurotic disorders were associated more with outpatient treatments (173).

Case series
3

Finally, in a sample of 257 adults with suicidal behaviour, hospitalisation was significantly associated with a diagnosis of psychosis, a history of suicide attempts and having a preconceived suicide plan. After controlling for confounders, these variables correctly classified 80% of hospitalisation decisions (174).

Case series
3

Evidence summary

Classification of patients (triage) in the Emergency Services	
4	Triage is defined as the systematic clinical review of all patients entering the emergency department, with the aim of assigning treatment priority and assessments using predetermined criteria and a classification method to determine the level of emergency (141).
2+	The Risk of Suicide Questionnaire (RSQ), (120) has proved to be an instrument of high sensitivity and specificity for detecting the risk of suicidal behaviour in children and adolescents by non-specialist personnel, although it has also been used in adults (145). The Spanish version obtained moderate internal consistency and moderate-high correlation with constructs such as hopelessness (175).
Q	<p>The short version of the RSQ (121) may help to determine the degree of need for immediate care for those attending for suicidal behaviour in an emergency department, and for whom there is no serious impairment in physical condition. The questions to be asked would be the following:</p> <ul style="list-style-type: none"> – Are you attending because you tried to injure yourself? – Have you had ideas related to suicide during the last week? – Have you tried to injure yourself in the past? – Has something very stressful happened to you in recent weeks?
Evaluation of patients with suicidal behaviour in emergency	
Q	Although anyone talking about suicide should be taken seriously at all times, the possibility of emergency services and intensive care unit staff having a negative or ambivalent attitude towards patients attending for suicide attempt has been described (75).
4	As well as assessing the changes in physical condition, the hospital emergency doctor should always perform a basic social and psychopathological assessment, including a needs and suicide risk assessment (153).
4	The identification of suicide risk factors is of great importance as the level of risk increases with the number of factors present, although there are some with a greater effect than others (2, 36).
3	One way to improve the collection of information and thus the evaluation of patients with suicidal behaviour would be through systematically completing standard forms (see Table 16), (156).
4	The SAD PERSONS scale is widely used in the emergency department suicide risk assessment, despite not having been validated in Spain nor having any studies to evaluate its psychometric properties (89).
Q	Although the Manchester Cooper et al. test has a high sensitivity for identifying patients at risk of recurrence of suicidal behaviour, it could also be valid for a first attempt at suicide (type I-II), although not in all cases (159, 160).
Q	The areas for improvement identified in the care of suicidal behaviour are: communication between patients and staff, training staff, empathy for persons affected, access to specialist health care and information on suicidal behaviour for patients, carers and the public in general (75).

Training medical staff in the emergency department	
3	Staff training in both the assessment and management of patients with suicidal behaviour improves staff attitudes, skills and safety when handling these patients, which correlates with the quality of the assessment and care provided (162).
Hospital admission criteria for patients with suicidal behaviour	
4	In general, the decision to hospitalise the patient depends on three main factors: the medical and surgical repercussions of the suicidal behaviour; the patient's immediate suicide risk; and the need for treatment of the baseline mental disorder and lack of effective social and family support (36, 78).

Recommendations

✓	All patients who attend the emergency department for suicidal behaviour should undergo triage to ensure they are attended within the first hour after arrival.
✓	The brief version of the Horowitz suicide risk questionnaire is proposed for use by emergency department triage staff for patients attending for suicidal behaviour without any severe affectation of their physical condition.
✓	The assessment of patients with suicidal behaviour should be conducted in an atmosphere of privacy, confidentiality and respect.
✓	All available security measures to prevent escape and aggression to themselves or others should be taken while in the emergency department.
✓	Besides assessing any change in the physical condition of the patient with suicidal behaviour, the hospital emergency doctor should always perform a basic social and psychopathological assessment.
D	When assessing a patient with suicidal behaviour, a systematic assessment of the risk factors and recording of the most relevant features of the suicide attempt is recommended; preferably using a standard form, with all information properly documented in the medical record.
✓	It is suggested that patients with a suicide attempt are assessed by a psychiatrist, when recommended by the emergency department doctor.
✓	Referral to a psychiatrist by the emergency physician should be performed when the patient is fully conscious and an appropriate psychopathological assessment can be performed.
✓	Sometimes the patient's psychiatric evaluation may be deferred, and the patient preferentially referred for a mental health consultation.
✓	Improvements in the following areas of care for people with suicidal behaviour are recommended: <ul style="list-style-type: none"> – Communication between patients and staff – An empathetic attitude from staff – Access to specialist health care – Information on suicidal behaviour for patients, caregivers and families.

D	Staff who are not mental health specialists should receive appropriate training in the assessment of patients who present with suicidal behaviour.
✓	<p>Training for the emergency physician in the care of patients with suicidal behaviour should include those aspects considered for their competence, including:</p> <ul style="list-style-type: none"> – Assessment of mental status and capacity of the patient and mood – Skills in detecting immediate suicide risk – Basic legal knowledge for emergency medical situations.
D^{CPG}	<p>The decision to hospitalise a patient after suicidal behaviour is often a complex process. The following factors should mainly be considered:</p> <ul style="list-style-type: none"> – Medical and surgical repercussions of the suicidal behaviour – Immediate suicide risk of the patient – Need for more intensive treatment of the baseline mental disorder – Lack of effective family and social support.

7. Treatment of suicidal behaviour in specialist care (Mental Health)

Key questions:

- Are there any psychotherapeutic techniques indicated for treating a patient with suicidal behaviour?
- Are there any effective drugs in the treatment of suicidal behaviour?
- What is the efficacy and safety of electroconvulsive therapy in the treatment of suicidal behaviour?

One of the major difficulties in the study of treatment of suicidal behaviour is that suicide is exceptional, so you need a very large sample to show statistically significant differences when comparing different treatments. To this difficulty must be added that many studies exclude patients at high risk of suicide and that no follow-up periods are usually long. Because of this, an alternative strategy to analyse the effect of treatment on suicide is to select outcome variables which are highly associated with suicidal behaviour (176).

7.1. Psychotherapeutic interventions in the treatment of suicidal behaviour

There are a number of specific difficulties in randomised clinical trials (RCTs) when it comes to testing and comparing the effectiveness of psychotherapeutic treatments:

- The existence of common factors for all psychological treatments (therapist, patient and therapeutic relationship variables) that potentially affect the results obtained in both the experimental and the control group.
- Psychological treatments are not always standardised so that there may be individual differences and slight variations that influence the result. However, increasingly standardised treatment manuals are available.
- In most studies the comparison group follows the normal treatment or conventional care, but it is not defined operationally, which makes comparison between groups difficult.

The psychotherapeutic treatment of suicidal behaviour is becoming increasingly important, especially when based on cognitive-behavioural techniques.

Different systematic reviews (177, 178) and meta-analyses (167, 179, 180) were located evaluating psychotherapy as a treatment of suicidal behaviour. Specific systematic reviews were also found on psychotherapy as a treatment of suicidal behaviour in personality disorders (181) and bipolar disorder (182), as well as specific reviews on a particular therapy, such as cognitive behavioural therapy (CBT) (183), problem-solving therapy (PST) (184) or dialectical behavioural therapy (DBT) (185, 186)

To update the knowledge regarding therapies including cognitive-behavioural techniques, the 2008 meta-analysis by Tarrier et al. was selected (183). For the rest of the forms of psychotherapy used in the treatment of suicidal behaviour, the NICE guide was taken as a reference (53). In addition to the CBT therapies, this guide also provides evidence about interpersonal therapy (IPT), family therapy (FT) and psychodynamic therapy. It also has a section that assesses long-term vs. short-term therapy and includes a single study (187) that does not clarify the specific type of psychotherapy used nor provide conclusive results

7.1.1. Cognitive-behavioural typetherapies

Although cognitive and behavioural models independently originate from different assumptions, the cognitive-behavioural typetherapies share cognitive techniques and use behavioural techniques in a systematic fashion.

The latest research in the field of prevention of suicidal behaviour has focused on this type of treatment. The Tarrier et al. meta-analysis (183), for example, included 28 studies of which 18 were published after 2000.

Features of studies included in the Tarrier et al. study (2008)

This meta-analysis included studies that used cognitive-behavioural techniques as a substantial part of the treatment to reduce suicidal behaviour. Studies included measured outcome variables associated with suicidal behaviour (repetition rate, ideation, hopelessness and life satisfaction). When more than one variable was measured, the most relevant one in relation to suicide was selected.

RCT
Meta-analysis
1+

Some degree of variability was observed among the studies included in terms of methodology, specific treatment and implementation techniques. In addition, many of these studies were conducted in the USA, and mostly among adults.

Despite this, all the studies were homogeneous both macrotherapeutically (strategy) and microtherapeutically (processes and mechanisms), (183). DBT was the most common of all these psychotherapy modalities.

The following psychotherapeutic interventions were included in the Tarrier et al. meta-analysis:

- Cognitive behavioural therapy (Table 21)
- Dialectical behaviour therapy (Table 22)
- Manual Assisted Cognitive Behaviour Therapy (MACT), (Table 23)
- Problem solving therapy (Table 24)
- Other cognitive-behavioural typetherapies: Behavioural therapy, CBT in group format, integrated treatment, LifeSpan, Skills training and Solution Focused Brief Therapy (Table 25).

The features of these studies are summarised in the tables below, along with a brief description of the specific type of therapy employed.

Cognitive Behavioural Therapy

It is commonly acknowledged that all cognitive therapy intervention includes behavioural techniques to a greater or lesser extent, hence its name, CBT (188).

CBT is part of cognitive restructuring as a fundamental technique for change, but also includes a variety of behavioural techniques that aim to help complete the change. The intervention focuses on changing dysfunctional behaviours, distorted negative thoughts associated with specific situations and maladaptive attitudes related to the object of the intervention, which may be depression, suicidal behaviour, for example. Behavioural activation is also a key aspect of cognitive therapy, with particular emphasis on the relationship between activity and mood.

CBT adopts a structured format, is limited in time and is based on the cognitive behavioural model of affective disorders. The most common treatment length is 15-20 weeks of one weekly 50-minute session, although there are also studies that adopt shorter formats for less severe cases (6-8 sessions), and it is assumed that the duration of therapy may be prolonged in more serious cases or for those with other pathologies (188).

The CBT studies included in the Tarrier et al. meta-analysis are shown in Table 20.

Table 20. Cognitive-behavioural therapy studies (Tarrier et al. meta-analysis)

Author; year (reference)	N	Objective (suicidal behaviour variable)	Comparison	*Duration/ No of sessions
Patsioskas and Clum; 1985 (189)	15	Suicide attempt (ideation)	Individual therapy	10/10
Salkovskis et al.; 1990 (169)	20	Suicide attempt (repetition†)	Standard care	5/5
Klingman and Hochdorf; 1993 (190)	237		No treatment	10/12
Raj et al.; 2001 (191)	40	Deliberate self-harm (ideation)	Standard care	10/12
Wood et al.; 2001 (192)	63	Self-harm (ideation)	Standard care	12/5
March et al.; 2004 (193)	439	Depression (ideation)	Fluoxetine vs Fluoxetine + CBT vs placebo	14/11
Brown et al.; 2005 (194)	120	Suicide attempt (ideation)	Standard care	9/9
Tarrier et al.; 2006 (195)	278	Suicidal behaviour in schizophrenia (repetition †)	<i>Counselling</i> vs Normal treatment	17/19

*Estimated duration (hours); †Suicide attempt, planning, potentiality or likelihood; N: number of patients

Source: Compiled by authors from Tarrier et al. meta-analysis (183).

Dialectical behaviour therapy

DBT is a therapy model developed by Linehan (196) specifically for the treatment of patients diagnosed with borderline personality disorder and chronic suicidal behaviour, although its use has spread to other populations. It is a kind of CBT, with an integrative treatment based on behavioural theory and different aspects of both cognitive therapy and some support therapies.

One of the central objectives of this model, which combines individual, group and telephone support sessions, is the treatment and reduction of both self-injurious behaviours and suicidal behaviour, which is why there are a considerable number of studies addressing its effectiveness.

Generically, DBT focuses on the following key aspects of borderline personality disorder:

Development of the fullness of consciousness or attention (mindfulness): This is the ability to pay attention to the experience just as it is in the present moment, without judging and without evaluating.

- Emotional regulation: Assuming that people diagnosed with borderline personality disorder experience very intense and unstable emotions.
- Interpersonal Effectiveness: Aiming to change and improve interpersonal relationships.
- Increased anxiety tolerance: Showing that pain and discomfort are part of life and not accepting this fact further increases discomfort.

The DBT studies included in the Tarrier et al. meta-analysis are shown in Table 21.

Table 21. Dialectical behaviour therapy studies (Tarrier et al. meta-analysis)

Author; year (reference)	N	Objective (suicidal behaviour variable)	Comparison	*Duration/ No of sessions
Linehan et al.; 1991 (197)	44	Suicidal behaviour in BPD (ideation)	Standard care	182/104
Linehan et al.; 1999 (198)	28	TLP and drug dependence (attempt [†])		156/104
Koons et al.; 2001 (199)	20	Suicidal behaviour in BPD (repetition [†])		69/48
Rathus and Miller; 2002 (200)	111	Suicidal behaviour in BPD (attempt [†])		28/24
Verhuel et al.; 2003 (201)	58	Self-harm, BPD (attempt [†])		191/104
Katz et al.; 2004 (202)	62	Suicide attempt, ideation (ideation)		20/14
Van den Bosch et al.; 2005 (203)	58	BPD (attempt [†])		178/104
Linehan et al.; 2006 (204)	101	BPD, Suicidal behaviour (attempt [†])	Community treatment	89/65

*Estimated duration (hours); [†]Suicide attempt, planning, potentiality or likelihood; N: number of patients; BPD: Borderline Personality Disorder

Source: Compiled by authors from Tarrier et al. meta-analysis (183).

MACT

Manual-Assisted Cognitive Behaviour Therapy (MACT), (Table 22) is a therapy that includes aspects of CBT, DBT and bibliotherapy. It is based on skills training and is much used in patients with personality disorders. It includes sessions with the therapist who also provides plenty of self-help material (181).

Table 22. MACT studies (TARRIER et al. meta-analysis)

Author; year (reference)	N	Objective (suicidal behaviour variable)	Comparison	*Duration/ No of sessions
Evans et al.; 1999 (205)	34	Self-harm, BPD (repetition †)	Standard care	5/3
Tyrer et al.; 2003 (206)	480	Self-harm (repetition)		7/7
Weinberg et al.; 2006 (207)	30	Self-harm, bipolar disorder (repetition †)		3/6

*Estimated duration (hours); †Suicide attempt, planning, potentiality or likelihood; N: number of patients; BPD: Borderline Personality Disorder

Source: Compiled by authors from TARRIER et al. meta-analysis (183).

Problem-solving therapy

Problem-solving therapy (PST) assumes that an increase in problem-solving skills can help reduce the burden and suicidal ideation. This type of therapy usually begins with a listing and prioritising of problems, and continues with a proposal and selection of strategies to address them, possible obstacles encountered and a monitoring of the whole process. The skills acquired can also be transferred to other general situations (208). Table 23 shows the PST studies included in the TARRIER et al. meta-analysis (183).

Table 23. Problem solving therapy studies (TARRIER et al. meta-analysis)

Author; year (reference)	N	Objective (suicidal behaviour variable)	Comparison	*Duration/ No of sessions
Lerner and Clum; 1990 (209)	18	Suicidal ideation (ideation)	Counselling	15/10
Mcleavy et al.; 1994 (210)	39	Voluntary intoxication (hopelessness)	Problem-solving brief format	5/5
Rudd et al.; 1996 (211)	264	Suicidal ideation (attempt †)	Standard care	126/36
Nordentof et al.; 2005 (212)	401	Suicide attempt, ideation (repetition†)	Standard care	42/14

*Estimated duration (hours); †Attempted suicide, planning, potentiality or likelihood; N: number of patients; BPD: Borderline Personality Disorder

Source: Compiled by authors from TARRIER et al. meta-analysis (183).

Other cognitive-behavioural typetherapies

This section includes studies using cognitive and/or behavioural techniques preferentially: either integrated into a comprehensive treatment protocol that includes group sessions and/or family members (213, 214) or focused on a particular technique (215, 216), (Table 24).

Table 24. Other cognitive-behavioural typetherapies studies (TARRIER et al. meta-analysis)

Author; year (reference)	Treatment	N	Objective (suicidal behaviour variable)	Comparison	*Duration/ No of sessions
Liberman and Eckman; 1981 (213)	Behavioural therapy	24	Suicide attempt (repetition [†])	Insight oriented therapy	32/8
Nordentof et al.; 2002 (214)	Integrated treatment	341	First psychosis episode (attempt [†])	Standard care	58/39
Power et al.; 2003 (217)	Standard care + LifeSpan	42	First psychosis episode (hopelessness)	Standard care	10/10
Donaldson et al.; 2005 (215)	Skills training	39	Suicide attempt(ideation)	Counselling	12/7
Rhee et al.; 2005 (216)	Solution-focused brief therapy	55	Suicidal ideation (satisfaction with life)	Common factors therapy vs. waiting list	8/8

*Estimated duration (hours); [†]Suicide attempt, planning, potentiality or likelihood; N: number of patients; BPD: Borderline Personality Disorder

Source: Compiled by authors from TARRIER et al. meta-analysis (183).

Meta-analysis results

Four of the 28 studies submitted for review could not be included in the meta-analysis (198, 206, 212, 214), so the final figure was 24.

The overall result was that the cognitive-behavioural therapies had a positive effect on suicidal behaviour compared with other treatments. Furthermore, various analyses were performed by grouping studies according to their features, with the following results:

RCT
Meta-analysis
1+

- Age: The impact was significant for adults but not when the majority of the sample was composed by adolescents.
- Comparison groups: The therapies achieved a significant size effect when compared with the “no treatment” or “normal treatment” groups, but was not significant when compared to other forms of therapy.
- Objective of treatment: The effect size was significant when suicidal ideation/behaviour was expressed as one of the intervention objectives, but not when the psychotherapy was focused on other aspects to reduce suicidal behaviour (depression, schizophrenia, distress).
- Outcome variable: A first analysis found that all variables except hopelessness were significant. However, only two studies included it as the variable closest to suicidal behaviour. When all the studies in which it was included were measured in a re-analysis, it was found that was significant.
- Type of therapy: This analysis compared DBT to other treatments. Both cognitive-behavioural and DBT-based psychotherapies had a significant effect size, which were comparable to each other.
- Mode of therapy: Individual treatment and individual treatment with group sessions had more effect than treatments based exclusively on group sessions.

Scientific evidence available after the Tarrrier et al. study (2008)

Nine RCTs on cognitive-behavioural psychotherapies used as treatment for suicidal behaviour were published after this study (Table 25).

Table 25. Cognitive-behavioural typetherapies studies included

Author; year (reference)	Treatment	N	Objective (suicidal behaviour variable)	Comparison	*Duration/ No of sessions
Eskin et al.; 2008 (218)	Problem-solving therapy	46	Depression and SB (Probability of suicide)	Waiting list	4/6
Unutzer et al.; 2006 (219)	Problem-solving therapy	1801	Suicidal ideation	Normal treatment	ND/4-8
Davidson et al.; 2006 (220)	Cognitive behaviour therapy	106	BPD (Suicide attempt)	Standard care	30/30
Goodyer et al.; 2007 (221)	Cognitive behaviour therapy + fluoxetine + standard care	208	Depression (ideation and SB)	Fluoxetine + standard care [†]	ND/19
Bateman et al.; 2007 (222)	Cognitive behaviour therapy	63	SB (ideation and intensity) in schizophrenia	Befriending	ND/19
Slee et al.; 2008 (223)	Cognitive behaviour therapy	82	SB (ideation)	Standard care	12/12
Hazell et al.; 2009 (225)	Cognitive behaviour therapy (group)	72	Self-harm (ideation)	Standard care	12/5
Clarkin et al.; 2007 (227)	Dialectical behaviour therapy (DBT)	62	SB in BPD	Transference-based psychotherapy (TBP) vs Support therapy (ST)	ND/ DBT and ST=52; TBP=104
McMain et al.; 2009 (228)	Dialectical behaviour therapy	180	BPD (SB)	Standard care	144/144
Green et al.; 2011 (226)	Cognitive behaviour therapy (group)	183	Self-harm (SB, ideation)	Standard care	12/5

*Estimated duration (hours); †Standard Care: regular monitoring of mental state, psychoeducation, support measures, problem-solving techniques, attention to possible co-morbidity and coordination with other professionals; BPD: Borderline Personality Disorder; N: number of patients; ND: not determined; SB: suicidal behaviour

Source: Compiled by authors

A RCT evaluating the effectiveness of PST (6 weekly sessions) versus the waiting list was located (218). The sample consisted of adolescents with depression and suicide risk. The group that received PST had a significant decrease in scores on depression scales (Hamilton and BDI) and suicide risk reduction measured on the Suicide Probability Scale (SPS). There was also a significant increase found in self-esteem and assertiveness in the group that received PST.

RCT
1+

Another trial compared PST in elderly patients with major depression with standard care. The experimental intervention consisted of collaboration with the primary care physician from nurses and psychologists who conducted counselling, psychological education and assessment. Patients received anti-depressant drug treatment or PST for 12 months and the results were compared with a standardcare group (anti-depressant drug treatment, counselling or referral to Mental Health). The group receiving the experimental intervention had a significant reduction of suicidal ideation compared with the control group during the intervention and a follow-up period of one year (219).

RCT
1+

Another study compared the effectiveness of CBT and normal therapy compared with normal therapy alone in patients with personality disorder. A significant reduction in the number of suicide attempts was found in the group receiving CBT at the end of the study and during a follow-up period of two years (220).

RCT
1+

In 2007 the ADAPT study (221) was published which compared the effectiveness of fluoxetine treatment with fluoxetine + CBT in adolescents with moderate or severe depression. Patients were included who did not respond to an earlier brief psychoeducational intervention performed at the start of the study. Suicidal ideation and behaviour was measured with the K-SADS-PL and HoNOSCA scales. Apart from receiving selective serotonin reuptake inhibitors (SSRIs) and CBT, all patients received standardcare (regular monitoring of mental state, psychoeducation, support measures, problem solving techniques, attention to co-morbidity and coordination with other professionals). Adding CBT to fluoxetine was found not to improve the clinical variables, although it is worth noting that the usual care in this study was almost an intervention in itself.

RCT
1++

Other authors (222) evaluated the efficacy of CBT compared to befriending in reducing suicidal behaviour in a group of patients diagnosed with chronic schizophrenia and active positive and negative symptomatology resistant to medication. An average of 19 sessions was given over a period of 9 months. Both groups showed a reduction in suicidal behaviour, but this was statistically significant only in the group receiving CBT, with further improvement until the end of the follow-up period.

RCT 1+

The effect of short-term CBT after an episode of suicidal behaviour was also evaluated in patients with chronic or recurrent suicidal behaviour (223). The CBT was added to standard treatment (psychotropic drugs and other forms of psychotherapy and hospitalisation) and compared with the latter one alone. It was found that the group receiving CBT improved significantly in all measured outcome variables (suicidal behaviour, depression, anxiety, self-esteem and problem-solving). It was also noted that difficulties in regulating emotions such as impulse control and goal-oriented behaviour, had an important role as mediators in suicidal behaviour (224).

RCT
1+

Hazell et al. (225) and Green et al. (226) attempted to replicate a previous group CBT study (192) to check if group CBT (5 sessions) were more effective than the standard treatment in adolescents for the prevention of suicidal behaviour. The two studies found no statistically significant differences between the groups, although different aspects such as the level of expertise of the professionals and the inclusion of high-risk adolescents in recent studies could explain the results.

RCT
1+

One study (227) compared the effectiveness of 3 psychotherapeutic treatments for borderline personality disorder: DBT, transference focused psychotherapy and psychodynamic type supportive therapy. It was concluded that both DBT and the transference focused psychotherapy led to a statistically significant improvement in suicidal behaviour.

RCT
1+

Another RCT (228) evaluated the effectiveness of DBT compared to standard therapy in patients with borderline personality disorder. There was a statistically significant improvement in both groups and in all variables measured, although with no differences between them. It is worth noting that the intervention in the control group was very wide and included some aspects in common with DBT, such as psychoeducation and self-help sessions.

RCT
1+

Finally, a systematic review (185) showed that DBT could be effective in reducing suicidal ideation and behaviour specifically in adolescents with BPD and bipolar disorder. This systematic review included the Tarrier meta-analysis (183), the Guilé et al. systematic review (229) plus 1 RCT and 4 observational studies.

SR of different
study types
1+, 2+

7.1.2. Interpersonal Psychotherapy

IPT was originally developed by Klerman and Weissman (230), and although originally designed for patients with depression, currently its scope has extended to different disorders.

IPT has many aspects in common with cognitive therapy, primarily addressing current interpersonal relationships and focusing on the patient's immediate social context. The original format was 3 stages over 12-16 weeks with weekly sessions during the acute phase treatment. The symptoms and discomfort are related to the patient's situation in a formulation that includes one or more of the following areas: grief, interpersonal disputes, role transition and interpersonal deficits. Therapy sessions are structured and focus on understanding the most recent events better in interpersonal terms and exploring alternative ways to handle such situations (188).

The NICE guideline (53) includes a study (231) whose objective was to evaluate the effectiveness of brief psychodynamic IPT (once a week, for 4 weeks and by a nurse at the patient's home) in people after a voluntary intoxication episode. The control group received standard treatment in primary care (excluding any type of psychotherapy or psychological counselling). At the 6 months follow-up, the group that received IPT was found to have improved significantly compared to the control group (self-reporting a lower frequency of self harm, lower scores on the BDI and greater satisfaction with the treatment).

RCT
1+

Citalopram and/or IPT was used in one study as a first choice treatment in patients over 60 years with greater/lesser depression and suicidal ideation. In the standard care group, information was given to doctors about the treatments recommended by depression guidelines. At 12 months, both groups had a reduction in suicidal ideation, although patients in the experimental group showed a greater decrease in depression severity and higher recovery rate than the control group (232). At 24 months, patients who received the experimental intervention achieved a significant reduction in suicidal ideation compared to the control group (233).

RCT
1+

A recent study (234) evaluated the effectiveness of an intensive IPT intervention in adolescents with suicidal risk compared to standard treatment (at school). IPT was more effective than standard treatment in reducing depression, suicidal ideation, anxiety and hopelessness.

RCT
1+

The features of the above studies are summarised in Table 26.

Table 26. Interpersonal therapy studies included

Author; year (reference)	N	Objective (suicidal behaviour variable)	Comparison	*Duration/ No of sessions
Guthrie et al.; 2001 (231)	119	Suicidal behaviour (repetition)	Standard care	3/4
Bruce et al.; 2004 (232), Alexo-paulos et al.; 2009 (233)	568	Suicidal ideation (ideation)	Standard care	No data available
Tang et al. 2008 (234)	73	Suicidal behaviour (ideation)	Standard care (school environment)	10/12

*Estimated duration (hours); N: number of patients; Source: Compiled by authors

7.1.3. Family Therapy

Family therapy (FT) is modelled on the general systems theory and on making family relationships the main focus of the intervention. The family is understood as a system in which all members are interconnected, so that if a member has a problem, the other members are involved in some way in producing, maintaining and resolving it. It is therefore a model that seeks to understand and frame the individual behaviour (which is no longer the main focus of intervention) in the context of interactions between different family members. Although there are different schools, family therapy can be divided into behavioural, psychodynamic and systemic categories.

Common features of family interventions are:

- Having several phases: Evaluation, psychoeducation, intervention in the functioning of various areas (cognitive, affective, interpersonal and behavioural, according to the focus of the specific therapy) and feedback.
- The participant must be with his family during most therapy sessions.
- There are usually a minimum of 6 sessions, each lasting approximately an hour.

The NICE guide (53) includes a single study (235) comparing FT at home conducted by 2 social workers with treatment as usual. The experimental intervention consisted of an evaluation session and four treatment sessions in the patient's home. All participants were under 16 years. In this study, there was insufficient evidence to determine whether there was a significant difference between the two forms of treatment in the prevention of recurrence of suicidal behaviour and reduction in suicidal ideation. Neither was any significant difference found for hopelessness between the two forms of treatment.

RCT
1+

No other family therapy study performed after the above described was located.

7.1.4. Psychodynamic Therapy

This comes from psychoanalysis and is based on Freud's theory of psychological functioning: the nature of conflict can be largely unconscious, so the therapeutic aim is to resolve these conflicts. A fundamental difference between psychoanalysis and psychodynamic therapy is that the latter focuses on the here and now, and the goal of treatment is resolving the patient's current problems (236).

A variant of this type of treatment is deconstructive psychodynamic therapy, and is applied to patients with suicidal behaviour. It is a standard treatment for complex behavioural problems, such as addiction, eating disorders, recurrent self-harm and suicidal behaviour. This therapy promotes the development and integration of interpersonal experiences and attributions of oneself and others, and is based on a positive therapeutic alliance (237).

The NICE guide does not include any study of psychodynamic therapy for the treatment of suicidal behaviour.

One study (238) was located that evaluated the effectiveness of deconstructive psychodynamic therapy against treatment as usual in patients with borderline personality disorder and alcohol abuse. It was found that the psychodynamic therapy statistically significantly decreased suicidal behaviour, alcohol abuse and the need for institutional care.

RCT
1+

Another study (239) evaluated the short-term psychodynamic psychotherapy performed in a day hospital compared with standard outpatient therapy in personality disorders. The intervention in the experimental group consisted of a combination of psychotherapy and cognitive behavioural therapy in a group format for 18 weeks. An overall improvement was found in both groups for all measured variables (suicidal ideation and behaviour, symptomatic stress, interpersonal problems, global functioning and personality problems), see Table 27.

RCT
1+

Table 27. Psychodynamic therapy studies included

Author; year (reference)	N	Objective (suicidal behaviour variable)	Comparison	*Duration/ No of sessions
Gregory et al.; 2009 (238)	30	BPD and alcohol abuse (SB)	Standard care	No data/48
Arnevick et al.; 2009 (239)	114	BPD (SB)	Standard outpatient treatment	No data/16

* Estimated duration (hours); N: number of patients; SB: suicidal behaviour, BPD: Borderline Personality Disorder
Source: Compiled by authors

7.2. Pharmacological treatment of suicidal behaviour

As discussed above, suicidal behaviour is a complex phenomenon mediated by biological, psychological and social factors (240, 241). The proper assessment, diagnosis and treatment of the patient's underlying condition is the most effective mechanism for addressing suicidal behaviour.

Pharmacological treatment must address both the underlying pathology and symptoms that can act as additional risk factors (anxiety, insomnia, impulsivity, for example).

Drug treatment in children with suicidal behaviour is according to the underlying psychiatric disorder and these drugs should be supplied and kept by an adult to prevent abuse or overeating (242, 243). If the child's parents have a mental illness, psychiatric treatment of the parents contributes to the improvement of the child, probably due to a better family functioning and a reduction in stress factors (242).

There are few specific studies of the treatment of suicidal behaviour, as most of them analyse the drugs used to address the underlying pathologies of such conduct. A search of CPGs, systematic reviews, meta-analyses and primary studies was done in an attempt to answer the clinical question; and a selection of specific articles for each of the following groups of drugs was made: antidepressants, lithium, anticonvulsants and antipsychotics.

7.2.1. Antidepressants

The serotonergic and catecholaminergic properties of antidepressants confer efficacy against depression and anxiety, which are conditions that often underlie suicidal ideation and behaviour. The action of SSRIs on the serotonergic system reduces impulsivity and aggressiveness, which are often linked to suicidal behaviour (244).

The increased availability and use of SSRIs and newer antidepressants since the late 1980s in different countries has coincided with a significant reduction in suicide rates, and different studies have suggested a possible relationship between these factors (43).

Patients with affective disorder

Depression

Antidepressant treatment causes a decrease in suicidal ideation and behaviour (36, 167, 188, 232, 233, 244, 248), although most studies are of short duration (from weeks to a few months), see Table 28.

Table 28. Studies evaluating antidepressant treatment on suicidal behaviour

Author; year (reference), LE	Patients/Studies	Treatment	Conclusions
March et al.; (TADS) 2004 (193), RCT 1++	439 adolescents, 12-17 years diagnosed with major depressive disorder	Fluoxetine (20-40mg), CBT (15 sessions), combination of both or placebo	Significant reduction in suicidal ideation after combined group therapy
Gibbons et al.; 2007 (245), Retrospective cohort study 2+A	226 866 adult patients Diagnoses of unipolar depressive and non-specific disorder (included a single depressive episode, recurrent episodes, dysthymia and depressive disorder not classified in other categories)	SSRIs, non-SSRI AD (bupropion, mirtazapine, nefazodone, and venlafaxine), Tricyclic AD	The SSRIs reduce the risk of suicide attempts in adult patients with depression
Mulder et al.; 2008 (249), Case series 3	195 outpatient cases (>18 years) diagnosed with major depressive disorder	Fluoxetine (mean dose 28.1 mg/day) or nortriptyline (mean dose 93.5 mg/day for 6 weeks), other combinations were allowed at 6 months	Significant reduction in suicidal ideation and behaviour when treated with AD
Alexopoulos et al.; 2009 (233), RCT 1+	598 patients over 60 years with major depression or depressive symptoms. Two treatment types: 1. 15 help sessions, monitoring depressive symptoms and side effects by a care worker (nurse, social worker, and psychologist). Medical treatment regimen with citalopram and/or co-therapy interpersonal psychotherapy. 2. Standard care with information on the treatment of depression.	Citalopram 30mg/day(possibility of other AD) and/or interpersonal psychotherapy compared with normal control group (18-24 months)	Maintaining follow-up and depression treatment reduces suicidal ideation and increases long-term depression remission rates.
Zisook et al.; 2009, STAR-D (248), Case series 3	4041 outpatient cases (18-75 years) with non-psychotic major depressive disorder	Citalopram 10-60mg for 12-14 weeks	Reduced suicidal ideation in patients with prior ideation

AD: Antidepressants; LE: Level of evidence; RCT: randomised clinical trial; SSRI: Selective serotonin reuptake inhibitor.

Source: Compiled by authors

A review of various published studies of patients with depressive disorder showed that treatment with fluoxetine, paroxetine or fluvoxamine reduces suicidal ideation when compared with placebo; although this anti-suicidal effect was not demonstrated in longer term studies published to that date. Moreover, analysing all the data from published studies concluded that there was no evidence of increased suicidal ideation or behaviour during treatment with antidepressants (244).

SR of RCT 1+
and other
studies
2++

For the Treatment for Adults with Depression Study (TADS), consisting of adolescents with major depression (according to DSM-IV), suicidal ideation decreased from the initial 27-29% of patients in all treatment groups (fluoxetine, CBT, combination of both or placebo), although this reduction was significant only in the combination therapy group (193).

RCT
1++

A retrospective cohort study, which included patients with unipolar and non-specific depressive disorders, observed a lower rate of suicide attempts among patients treated with antidepressants than among those who were not, although this lower rate was only significant for SSRIs and tricyclics (245).

Cohort study
2+

Patients with a major depressive disorder who present with associated agitation it would be indicated early treatment for anxiety for a limited time. As these drugs can cause dependence, monitoring must be done to avoid their use in patients with dependence and substance abuse (250).

Epidemiological evidence from psychological autopsies indicates that suicide victims may have been inadequately treated for depression. This conclusion is based on the low frequency with which antidepressants are detected in the blood of patients with suicidal behaviour. It has also been observed that completed suicide figures are reduced, especially in women, when doctors improve their diagnosis and depression treatment skills (43).

Because of the strong association between depression and suicide, as well as the efficacy and safety of newer antidepressants, their use would be supported from a clinical perspective as part of a comprehensive approach to patients with major depressive disorder and suicide risk potential, including their prolonged use in patients with recurrent depressive disorder (36, 246, 250).

SR of
different study
types
3, 4

Tricyclic antidepressants and monoamine oxidase inhibitors (MAOIs) can be lethal in an overdose, which limits their use in potentially suicidal patients (36, 246, 250), where it is important to restrict the daily amount of the drug available (250). For their safety, SSRIs are considered the drugs of first choice in these patients. Other new antidepressants, such as bupropion or mirtazapine, also have low lethality in an overdose (36, 250).

SR of
different study
types
3, 4

Bipolar disorder

Unlike unipolar depression, there is little evidence of any benefit from antidepressants for suicidal behaviour in the short and long term (251).

A retrospective cohort study in patients with bipolar disorder (252) found that suicide attempts were more frequent during treatment with antidepressants in monotherapy, less frequent with mood stabilisers and of intermediate frequency with combination therapy. As it is a retrospective study, a major limitation is that possibly more severe patients would have received antidepressant treatment more frequently. Cohort study
2+

There is a risk of psychopathological destabilisation if antidepressants are not accompanied by mood stabilisers, especially in patients with bipolar disorder type I (253). Cohort study
2+

Others diagnoses

Evidence of reduced risk of suicide in patients treated with antidepressants would be limited to those diagnosed with major depression only (36, 247). Cluster B personality disorders (which include antisocial, borderline, histrionic and narcissistic disorders), obsessive compulsive and eating behaviour disorders show inconsistent results (247).

Relationship between antidepressant drugs and suicidal behaviour

Since the 1990s there has been controversy about the possible relationship between the new-generation antidepressants with suicidal ideation and behaviour in childhood and adolescence. As noted previously (254), the discussion started with an article by Teicher et al. in 1990 (255) which indicated that fluoxetine could induce or exacerbate suicidal behaviour. This is because RCTs of antidepressant drugs in children and adolescents do not usually consider suicide as an outcome variable. Most commonly, suicidal behaviour is assessed retrospectively once it has occurred. This sometimes makes it difficult to find an association between the variables that could be directly related to suicidal ideation or behaviour (247).

The Spanish Agency for Medicines and Health Products (AEMPS) adopted the conclusions of the European Medicines Agency (EMA) and reported a favourable risk: benefit ratio for the use of fluoxetine in depression in young people (256). Table 29 summarises the recommendations from different institutions on the use of antidepressants in children and adolescents (246).

Table 29. Use of antidepressants for major depression in childhood and adolescence

INSTITUTION	RECOMMENDATION
<i>Royal College of Paediatrics and Child Health, United Kingdom, 2000 (257)</i>	– Use antidepressants if there is no alternative and indication is justified
<i>Committee on Safety of Medicines (CSM), United Kingdom, 2003 (258)</i>	– Fluoxetine: risk: benefit ratio favourable for under 18s – The use of other antidepressants is advised against
<i>Food and Drug Administration (FDA), USA, 2004 (259)</i>	– Warns of the possible association between use of antidepressants and increased suicidal ideation or behaviour
<i>Food and Drug Administration (FDA), USA, 2007 (260)</i>	– Fluoxetine: This is the only drug approved. The emergence of significant suicidal ideation cannot be discounted when starting any antidepressant drug
<i>Committee on Human Medicinal Products, European Medicines Agency (EMA), 2005 (261)</i>	– Fluoxetine: Benefits outweigh the potential risk – Warns of possible increased hostility and suicidal thoughts
<i>Spanish Agency for Medicines and Health Products (AEMPS), Spain, 2005-06, (262, 263)</i>	– Fluoxetine: risk: benefit ratio favourable – No other antidepressants should be used – More research is needed to guarantee safety

Source: Clinical Practice Guideline for Major Depression in Children and Adolescents (246).

The efficacy of antidepressants in the treatment of major depression in adults is well documented (188, 264).

To investigate the relationship between paroxetine and suicidal behaviour in adults, Kraus et al. conducted a retrospective study of 57 RCTs in 2010. Paroxetine when compared with placebo for various mental disorders was concluded not to be associated with an increased risk of suicidal behaviour in all treated patients. In one subgroup, (11 out of 3455 patients), mostly young and with major depressive disorder, a significant increase in suicidal behaviour (although not completed suicide) was found, with almost all experiencing psychosocial stress prior to the attempt. Although this study has important limitations, including the small number of cases, its retrospective nature and pharmaceutical industry funding, the authors recommend careful monitoring during paroxetine therapy (254).

SR of RCT
1+

Studies published to date yield contradictory results in the attribution of a suicidogenic role to antidepressants. To reach a conclusion of this nature, all biological, psychological and social factors associated with suicidal act must be isolated, because it is a multifactorial act not attributable to a single or specific cause (265).

7.2.2. Lithium

The pathophysiological mechanism by which lithium reduces the risk of suicide is not known, although it could be due to a reduction of impulsivity, aggression and a reduction in the lack of behavioural control (2, 266-269), which leads to a stabilisation of mood while diminishing anxiety and aggressive behaviour (270).

Most studies compare lithium treatment with placebo or another therapy in patients with a major affective disorder, a schizoaffective disorder or a major recurrent depressive disorder (36, 71, 244, 250, 271-274). The annex with methodological material includes a table of articles from each of the studies evaluated.

The meta-analysis conducted in 2006 by Baldessarini et al. (271) is the most comprehensive with the strongest evidence levels of those selected in the search. The rest of the studies cited above provide no relevant results which were not already included in it. It includes a total of 45 studies of which 31 were RCTs, with a total of 85,229 patients. The objective of the meta-analysis was to compare the rates of attempted suicide and completed suicide in patients with bipolar disorder, schizoaffective disorder and major depressive disorder treated long-term with lithium compared to a control group. The results were as follows:

Meta-analysis
1+

- Decrease in the rate of suicide attempts (1.2% / year) in lithium-treated patients compared to those untreated (3.9% / year)
- Decrease in the rate of completed suicides in lithium-treated patients (0.1% / year) compared to those untreated (0.7% / year)
- The greatest reduction in suicidal behaviour was in patients with bipolar disorder and other major affective disorders.

The authors' conclusions were that lithium treatment reduces the long-term risk of suicidal behaviour (attempts and completed suicides) by five times in patients with bipolar and other major affective disorders. This effect is attributed to the decrease in aggression and impulsivity with the treatment, and suggests that lithium may be more effective in reducing suicide risk than other stabilisers, such as carbamazepine, sodium valproate and lamotrigine.

Another study performed later by the same group (275) showed that the risk of suicidal behaviour (attempts and/or completed suicides) is lower in patients with bipolar disorder treated with lithium compared with those receiving carbamazepine or sodium valproate.

Meta-analysis
1+

Another search of primary studies located three which were not included above: a RCT (276) and two retrospective cohort studies (277, 278).

<p>The clinical trial (276) assessed the protective effect of lithium on suicide in 167 adult patients with previous suicide attempts in the previous 3 months. Patients were diagnosed with major depressive disorder (76%), dysthymia (4.8%) or adjustment disorder (19.2%) and were randomised to receive lithium or placebo for twelve months. Although the authors concluded that lithium treatment was associated with a decreased risk of completed suicide in patients with depressive spectrum disorder and recent suicide attempt, this should be interpreted with caution due to the limitations of the study (high drop-out rate and heterogeneity of the sample).</p>	<p>RCT 1+</p>
<p>A retrospective study (277) compared the rates of suicide and suicide attempts in patients with bipolar disorder treated with lithium versus valproate and/or other anticonvulsants. A greater risk of attempted suicide was seen in valproate-treated patients compared with those taking lithium, although not an increased risk of completed suicide.</p>	<p>Cohort study 2+</p>
<p>The last retrospective study (278) compared the rates of suicidal behaviour between lithium and anticonvulsants (valproate and carbamazepine) and between periods taking the stabiliser versus drug-free periods. This study was excluded from the conclusions of this guide due to the survey's methodology and limitations: among others, the use of multiple psychotropic drugs concomitantly with lithium and anticonvulsants.</p>	<p>Cohort study 2+</p>
<p>Other lower evidence level studies also show beneficial effects for lithium treatment of suicidal behaviour in bipolar disorder patients.</p>	
<p>A study (279) that included one of the previous meta-analyses (271) and a retrospective study (280) concluded that lithium reduces the risk of suicide in patients with bipolar or other major affective disorders. Another narrative review on the role of psychopharmacology in suicide prevention concluded that, despite the drawbacks of lithium treatment, it should currently be the treatment of choice for bipolar disorder patients with suicide risk, and it seems to have a protective role for suicidal acts in patients with depressive disorders (281).</p>	<p>Meta-analysis 1+ Cohort study 2+</p>
<p>Finally, a document was reviewed published by the "Catalonia Committee of therapeutic consensus for mental disorders" which concluded that patients with bipolar disorder had shown that treatment with lithium salts reduced the risk of suicidal behaviour and mortality from the first year, that the rapid withdrawal of lithium was associated with increased suicidal behaviour, and that therefore a gradual withdrawal of at least two weeks duration was recommended (90).</p>	<p>Expert opinion 4</p>

7.2.3. Anticonvulsants

The action of anticonvulsant drugs on GABA receptors means that their anticonvulsant effect also has an anxiolytic effect, so that some of them could be useful in cases of suicide risk, to stabilise mood and reduce aggressive and impulsive behaviour (282).

There are few studies evaluating the effect of anticonvulsants on suicidal behaviour, as they are methodologically limited (275). Most found by a literature search dealt with anticonvulsant therapy in bipolar disorder (see Table 31) with only some patients having major affective disorder (271), schizophrenia (36, 278, 283) or borderline personality disorder (244).

This review included studies of valproic acid and carbamazepine (see Table 31), gabapentin (277), lamotrigine and oxcarbazepine (284). Only one study was found that compared valproate with olanzapine (285). Table 30 shows the features, objectives and findings of the different studies included.

Table 30. Studies of anticonvulsant treatment in patients with suicidal risk or behaviour

Author; year (reference)	Patients	Comparison	Study, Evidence level
APA guide; 2003 (36)	Bipolar disorder or schizophrenia	CBZ/ SV vs lithium	Retrospective cohort study 2+
Ernst and Goldberg; 2004 (244)	Bipolar disorder	CBZ/SV vs lithium	SR 2+
	Borderline personality disorder	CBZ vs placebo	
Yerevanian et al.; 2007 (278)	Bipolar disorder I and II, schizoaffective disorder, cyclothymia, mania	Different stabilisers, AD, AP and lithium	Retrospective cohort study 2-
Yerevanian et al.; 2003 (283)	Bipolar disorder I and II, schizoaffective disorder, cyclothymia	CBZ/SV vs lithium	Retrospective cohort study 2-
Collins et al.; 2008 (277)	Bipolar disorder	Lithium vs valproate/ gabapentin/CBZ	Retrospective cohort study 2+
Goodwin et al.; 2003 (280)	Bipolar disorder I and II	Lithium vs SV/CBZ	Retrospective cohort study 2+
Sondergard et al.; 2008 (284)	Bipolar disorder	Lithium vs AC, LMG and oxcarbazepine	Retrospective observational study 2+
Baldessarini and Tondo; 2009 (275)	Bipolar disorder	Lithium vs AC	Meta-analysis 1+
Houston et al.; 2006 (285)	Bipolar disorder	Suicide risk with olanzapine + lithium or SV	RCT 1+

APA: American Psychiatric Association; AC: anticonvulsants; AD: antidepressants; AP: antipsychotics; CBZ: Carbamazepine; LMG: lamotrigine RCT: randomised clinical trial; SR: systematic review; SV: Sodium valproate

Source: Prepared by authors

The findings of previous studies can be summarised as follows:

- The risk of suicidal behaviour (attempted and/or completed suicides) is lower in patients with bipolar disorder treated with lithium compared to those receiving carbamazepine or valproic acid (36, 275, 277, 280). Meta-analysis
1+
Cohort study
2+
- Studies that analysed carbamazepine and valproic acid versus lithium in bipolar disorder patients were found to be favourable towards lithium, but not statistically significantly. In patients with borderline personality disorder, carbamazepine showed a significant decrease in suicidal behaviour compared to placebo (244). SR of studies
2+
- The studies concluding that there is some protection given by carbamazepine against suicidal behaviour in bipolar disorder patients have methodological deficiencies (278, 283). Cohort study
2-

One study found a lower risk of suicidal behaviour in bipolar disorder patients treated with lithium than with anticonvulsants (valproic acid, lamotrigine and oxcarbazepine), although continued treatment decreased the risk of suicide in both cases. In patients initially treated with anticonvulsants, suicidal behaviour rates decreased by switching to lithium or by using it as a booster; while rates did not change if the initial treatment was with lithium and a change was made or augmentation performed with an anticonvulsant (284). Cohort study
2+

The “Catalonia Committee of therapeutic consensus for mental disorders” concluded that anticonvulsant drugs used in patients with bipolar disorder are effective in treating either manic (with valproic acid) or depressive phases (with lamotrigine), although it was not shown if the rates of attempted or completed suicide were reduced (90). Expert
opinion
4

There was a favourable effect for carbamazepine on patients with borderline personality disorder in the control of impulsivity and suicidal behaviour (244). Cohort study
2+

Risk of suicidal behaviour with anticonvulsants

The *Food and Drug Administration* (FDA) in 2008 warned of increased suicidal behaviour in patients with mental disorders treated with anticonvulsants (286). An increase in suicidal behaviour was found in a study of 11 anti-epileptic drugs, which was expressed a week after the initiation of treatment and persisted over 24 weeks. The relative risk of suicide was higher in patients with epilepsy compared to patients with mental disorders. Although the FDA analysed these antiepileptic drugs only, it considered that its findings could be extrapolated to all drugs of this therapeutic group.

Different studies were carried out following the previous study to find out the relationship between anticonvulsant drugs and suicidal behaviour (see Table 31). However, the studies came to different conclusions and the patients evaluated had different disorders.

Table 31. Studies on the use of anticonvulsants and the risk of suicidal behaviour

Author; year (reference)	Patients	Objective/Comparison	Study, Evidence level
Patorno et al.; 2010 (287)	Treated with AC	AC (topiramate or CBZ) vs other AC (gabapentin, LMG, oxcarbazepine or TGB)	Retrospective cohort study 2+
Bjerring et al.; 2010 (288)	6780 suicides treated with AC	Investigate risk of suicidal behaviour associated with AC treatments	Retrospective cohort study 2-
Gibbons et al.; 2009 (289)	Bipolar disorder	Determine if AC increase the risk of suicidal behaviour in bipolar disorder patients	Observational study 3
Arana et al.; 2010 (290)	Epilepsy, depression or bipolar disorder	Examine association between AC and suicidal behaviour	Retrospective cohort study 2+

AC: anticonvulsants; CBZ: carbamazepine; TGB: tiagabine; LMG: lamotrigine

Source: Prepared by authors

A retrospective cohort study (287) compared the new antiepileptic drugs (gabapentin, lamotrigine, oxcarbazepine, and tiagabine) with reference drugs like topiramate and carbamazepine. According to the authors, the use of gabapentin, lamotrigine, oxcarbazepine and tiagabine increased the risk of suicidal behaviour compared with topiramate or carbamazepine.

Cohort study
2+

A bipolar disorder study found an association between certain anti-epileptic drugs and an increased risk of suicidal behaviour, but it had significant methodological limitations (288). Another study showed no increased risk of suicidal behaviour with anticonvulsant therapy (289).

Cohort study
2
Case series
3

Finally, Arana et al. (290) studied the association between the use of anticonvulsant drugs and suicidal behaviour (attempts and completed suicides) in patients with epilepsy, depression or bipolar disorder. In the cohort studied (5,130,795 patients included in a database in the United Kingdom), contrary to the FDA, the authors found no association between the use of anticonvulsants and an increased risk of suicidal behaviour in patients with epilepsy or bipolar disorder; however, there was an increased risk in patients with depression or those taking anticonvulsants but who did not present epilepsy, depression or bipolar disorder.

Cohort study
2+

7.2.4. Antipsychotic drugs

The first antipsychotics used in clinical practice were in the early 1950s, and they now form a heterogeneous group of drugs classed as first generation or conventional and second generation or atypical. Both groups have been shown to be effective in controlling impulsive and aggressive behaviour, whether self-harm or that directed at others (266).

Most localised studies were conducted in patients with schizoaffective disorder and schizophrenia, and only a few in patients with depression or borderline personality disorder.

Conventional or first generation antipsychotic drugs

It is not known to what extent, the first generation antipsychotics, such as fluphenazine, thiothixene and haloperidol may be beneficial in limiting the suicidal risk of patients with psychotic disorders (36, 267). Table 32 summarises the studies included.

The APA guide states that suicides associated with schizophrenia have not significantly decreased since the introduction of antipsychotic drugs in the 1950s; suggesting that first generation antipsychotics have a limited effect on the risk of suicidal behaviour (36). Expert opinion
4

Table 32. Studies included of patients treated with first generation antipsychotic drugs

Author; year (reference)	Patients/ Studies	Comparison	Study, Evidence level
Ernst and Goldberg; 2004 (244)	14 studies of schizophrenia, borderline personality disorder or other diagnoses	Multiple medications (chlorpromazine, fluphenazine, haloperidol, trifluoperazine, flupenthixol)	SR of different types of studies 2++
Hawton et al.; 1998 (167)	Patients with 2 or more previous suicide attempts, N = 37 (18 drug and 19 placebo)	Flupenthixol vs placebo	SR of RCT 1+ (1 study only)
CPG NICE; 2004 (53)	Patients with 2 or more previous suicide attempts, N = 37 (18 drug and 19 placebo)	Flupenthixol (20mg depot) vs. placebo	SR of RCTs 1+

CPG: clinical practice guideline; NICE: National Institute for Health and Care Excellence; RCT: randomised clinical trial; SR: systematic review

Source: Prepared by authors

A systematic review found that haloperidol and trifluoperazine were associated with a reduced risk of suicide due to reducing the effect of impulsivity. The conclusions of the authors emphasized the high variability of the studies published so far on treatment, dose, duration, concomitant medications and diagnoses; thus limiting any general conclusions that can be drawn about its efficacy in suicidal behaviour (244). SR of studies
2+

Thiothixene (which is not currently available in Spain), haloperidol and trifluoperazine have an anti-impulsive effect in patients with borderline personality disorder and, therefore, a reduction in suicide risk (244, 266).

Expert
opinion
4

A study comparing flupenthixol (20mg as depot, which is a formulation currently unavailable in Spain) with placebo showed a significant reduction in the risk of suicidal behaviour, although the trial was relatively small (30 people completed treatment for 6 months), and all subjects had had previous suicide attempts (167).

SR of RCT
1+

Meanwhile, the NICE CPG also included another RCT of 58 patients undergoing 6 months treatment of different doses of fluphenazine (12.5mg vs. 1.5mg depot form), and found no significant differences in the reduction of episodes of suicidal behaviour (53).

SR of RCT
1+

Finally, the “Catalonia Committee of therapeutic consensus for mental disorders” concluded that for patients with schizophrenia or other psychotic disorders who have made a suicide attempt or have suicidal ideation, second generation antipsychotics may be superior to conventional in preventing suicide. Another recommendation of the Committee was that the use of depot antipsychotics would be more convenient for patients at high risk of suicide, as they ensure the treatment is carried out and the drug cannot be used for self-harm. Moreover, it suggests low-dose antipsychotics would be useful for suicidal impulse control in patients with borderline personality disorder or personality disorders with high impulsivity, (90).

Expert
opinion
4

Atypical or second generation antipsychotics

Clozapine

This is the atypical antipsychotic drug with the most data on the reduction of risk for suicidal behaviour and the only drug approved by the FDA for the treatment and reduction of risk of suicidal behaviour in patients diagnosed with resistant schizophrenia.

The methodological material annex shows the objectives, number of studies, conclusions of the guidelines, systematic reviews and meta-analyses dealing with clozapine treatments.

A cohort study (291) conducted in 2001 found clozapine gave no significant protection against completed suicide, although there was a lower overall risk of death.

Cohort study
2+

The *International Suicide Prevention Trial* (InterSePT) took place in 2003, which was an international multicentre RCT of 980 patients to compare the effect of clozapine against olanzapine for suicidal behaviour in patients diagnosed with schizophrenia or schizoaffective disorder who had had previous suicide attempts or current suicidal ideation. After 2 years of follow-up, there was a significant reduction in suicidal behaviour for those patients treated with clozapine, although there were no statistically significant differences for the rate of completed suicide (292).

RCT
1++

All meta-analyses and subsequent reviews (36, 43, 71, 244, 250) mention both studies and support the conclusions of InterSePT.

Other non-systematic studies (2, 279, 281, 293) also stress the benefits of clozapine in preventing suicide attempts in patients with schizophrenia or schizoaffective disorder, although in some cases indicating that this reduction is smaller than that produced by lithium in patients with affective disorders (279).

Expert
opinion
4

The “Catalonia Committee of therapeutic consensus for mental disorders” concluded that clozapine should be considered as the only antipsychotic drug that has demonstrated a reduction in rates of attempted suicide and other suicidal behaviour in patients with schizophrenia and other psychotic disorders who have made a suicide attempt or who have suicidal ideation (90).

Expert
opinion
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Despite all this, clozapine is considered as a specially controlled drug and can be used only if the patient is resistant to treatment with other antipsychotics, and in Spain it is not permitted to use it as a first-choice antipsychotic.

Olanzapine

The InterSePT study results (292) for the reduction of suicidal behaviour are better for clozapine than for olanzapine. However, suicide attempts in patients treated with olanzapine were approximately half that produced prior to the introduction of treatment, suggesting that it also a possible beneficial effect on the risk of suicidal behaviour.

RCT
1++

The systematic review by Ernst et al. (244) conducted three comparisons with olanzapine:

SR of studies
2+

- Olanzapine vs risperidone in schizophrenic and schizoaffective patients: After 28 weeks, the suicide attempt rates were significantly lower for olanzapine

- Olanzapine vs haloperidol in chronic psychotic patients: A 1-year follow-up showed a 2.3 times lower risk of suicidal behaviour with olanzapine
- Olanzapine vs haloperidol vs placebo: No differences were found in the incidence of suicide among the three groups, although a reduction in suicidal thoughts was found in the olanzapine group.

Risperidone

Studies to date with risperidone are methodologically limited due to sample size. The systematic review by Ernst et al. (244) included a section on risperidone and, as well as the aforementioned study comparing olanzapine with risperidone, there was a study of 123 patients with schizoaffective disorder, psychotic depression or schizophrenia in which risperidone was compared against a combination of haloperidol and amitriptyline; with no significant differences in suicidal ideation being observed. Another study included in this review had a small sample size and so has not been taken into account.

SR of studies
2+

A RCT conducted in 2008 to investigate the efficacy of risperidone jointly administered with antidepressants for suicidal behaviour in patients with major depression found that risperidone as an adjunctive was beneficial and reduced the risk of suicide. However, their extrapolation to clinical practice is difficult, due to the small sample size (294).

RCT
1+

7.3. Electroconvulsive Therapy

Electroconvulsive therapy (ECT) is a treatment which induces a general seizure by electrical stimulation of brain areas. Although its mechanism of action is not fully known, ECT has proved effective in the treatment of certain mental disorders, such as severe major depression, mania and schizophrenia (36, 295, 298).

The technique needs to be performed under general anaesthesia and immediate side effects such as mental confusion, amnesia, headache and short-term cognitive disorders have been described (296, 299).

The decision to indicate ECT must always be based on criteria such as the severity of condition, consideration of medical indications and contraindications, resistance to other types of treatment, assessment of special situations such as pregnancy or a serious risk of suicide, a good response history from an earlier episode and patient preference (300).

Efficacy and safety of ECT in the treatment of suicidal behaviour

A systematic review was published in 2005 to establish the efficacy and cost-effectiveness of ECT as a treatment for depression (uni- and bipolar disorder), schizophrenia, catatonia and mania (301). The included studies evaluated ECT alone or associated with drugs or psychotherapy versus simulated ECT treatment, drugs or transcranial magnetic stimulation.

The authors included 4 different study reviews of different methodological design (302-305) and 2 systematic reviews of clinical trials, the UK ECT group (306) and the Cochrane Schizophrenia Group (307), which provides evidence of the effectiveness and safety of treatment with ECT in patients with major depression, as there is insufficient evidence to make conclusions about its effectiveness in schizophrenia, catatonia and mania. In this review, suicide as an outcome variable was not assessed in any of the clinical trials. Evidence was obtained only from observational studies in patients with schizophrenia or schizoaffective or depressive disorders which show positive results (although sometimes conflicting) for a possible effect of electroconvulsive therapy on suicidal behaviour (see Table 33).

Since that review (301), only 1 RCT and 2 case-control studies evaluating ECT and considering suicidal behaviour as an outcome variable have been published.

A retrospective case-control study in 30 patients treated with ECT for severe mental disorder (bipolar disorder, major depression and schizoaffective disorder), with or without substance abuse, calculated the scores obtained with the 24-item *Brief Psychiatric Rating Scale* (BPRS-24) before and after receiving ECT. The results were compared with the scores at admission and discharge of matched controls who received drug treatment but not ECT. The results showed an improvement in scores relating to the areas of depression and suicide, and were greater for ECT. Within this group, the results for serious mental disorders associated with substance abuse were even more pronounced. The authors suggest that ECT could be one of the first choices of treatment in patients with major depressive disorder, suicidal ideation and substance abuse (313).

Case-control
study
2+

Table 33. Observational studies of the ECT treatment of suicidal behaviour

Author; year (reference)	Study type/ No of Patients	Diagnosis	Results
Tsaung et al.; 1979 (308)	Retrospective cases series N = 74	Schizoaffective disorder	No suicide mortality in patients treated with ECT, compared with 3 suicides among those who did not receive it
Avery and Winokur; 1976 (309)	Retrospective cases series N = 519	Depressive disorder	Less suicidal behaviour in patients receiving ECT or antidepressant treatment, compared to patients with inadequate antidepressant treatment or who received neither ECT nor antidepressants
Babigian y Guttmacher; 1984 (310)	Retrospective cases series N = unknown	Depressive disorder	No differences in the rate of suicide among patients with major depressive disorder who received ECT and controls who did not
Black et al.; 1989 (311)	Retrospective cases series N = 1076	Primary affective disorder	No differences in the rate of suicide among patients treated with ECT, antidepressants or treatment deemed inappropriate
Sharma; 1999 (312)	Case and control N = 74	Major depression (45%), bipolar disorder (27%), schizophrenia (13%), schizoaffective disorder (9%) and other diagnoses (9%)	Higher number of suicides (n = 7) in the group treated with ECT than in the control group (n = 2)

ECT: electroconvulsive therapy; N: number of patients

Source: Prepared by authors

A study of 1206 patients admitted for severe major depression between 1956 and 1969 and followed until 1998 found that suicide attempts were less frequent during and after ECT than with antidepressant drug treatment, and the severity of the suicide attempt was less in those patients with at least 4 weeks of antidepressant treatment, when compared with no treatment and ECT. Therefore, the authors recommend continuing antidepressant treatment after ECT treatment, which could have a preventive effect by decreasing the rate of suicides and reducing the severity and frequency of suicide attempts (314).

Case-control
study
2+

Finally, a study in patients diagnosed with unipolar major depression who underwent 3 weekly sessions of bilateral ECT found that 80.9% of the 131 patients with high expressed suicidal intent reached zero points on the Hamilton scale (complete absence of suicidal ideas, gestures and behaviour); with 38% doing so after 1 week of treatment and 61.1% after 2 weeks (315).

Case series
3

Clinical Practice Guidelines and consensus documents

Based on the same studies included in a previous systematic review (301), NICE (296) believes that ECT should be used only to achieve rapid improvement when severe symptoms persist despite adequate treatment and/or when considering that the clinical picture may threaten the life of the person, in patients with severe major depression, catatonia or a prolonged or severe manic episode.

SR of
different
study types 3

The *UK Royal College of Psychiatrists* (297) believes that ECT may be the treatment of choice for major depressive disorder when there is an urgent need for treatment; for example, when the episode is associated with:

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opinion
4

- Suicidal Behaviour
- Serious suicidal ideation or plans
- A life-threatening situation caused by the patient refusing food or liquids.

The *Bundesärztekammer* (the German Medical Association, 295) proposes ECT as a treatment of choice in several pathologies and, in particular, severe depression with a high probability of suicide or refusal of food.

Expert
opinion
4

The *Australian and New Zealand College of Psychiatrists* (298) believes that the main indication for ECT would be major depression, especially with psychotic or catatonic symptoms and/or a risk of suicide or refusing food and drink.

Expert
opinion
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Based on a previous document (316), the APA (36) recommends ECT in cases of severe major depression with the presence of suicidal ideation or behaviour and, in some circumstances, in cases of suicidal ideation or behaviour in patients with schizophrenia, schizoaffective disorder and manic or mixed bipolar disorder. Although there is no evidence of a long-term reduction in the risk of suicide, the APA recommends maintenance of drugs or ECT after a course of ECT.

SR of
different
study types
3

The Spanish Consensus on ECT (300) considers ECT as a primary indication in severe depressive episodes with or without psychotic symptoms, when there is severe inhibition, a high risk of suicide or severe anxiety/agitation.

Other indications considered are:

- Resistance or contraindication to antidepressant treatment
- Depression/mania during pregnancy
- Critical somatic situations requiring a rapid therapeutic response.

There is no reference to ECT in other disorders such as schizophrenia or acute mania.

Table 34 summarises the main diagnoses and clinical situations in which ECT would be indicated.

Table 34. Diagnoses where ECT may be considered a primary indication

<ul style="list-style-type: none"> – Severe major depression – High risk of suicide (295, 298) <ul style="list-style-type: none"> • with/without psychotic symptoms • when in need of rapid therapeutic response • by patient preference (188) – Schizophrenia with serious suicidal ideation or behaviour (36) and/or severe agitation or catatonic stupor – Schizoaffective disorder with serious suicidal ideation or behaviour (36)

Source: Prepared by authors

For the use of ECT in children and adolescents, scientific evidence is limited due to the lack of controlled studies to demonstrate its effectiveness. However, studies suggest it might be effective in certain adolescent major depression situations. There are no studies on pre-adolescent children (246).

Evidence summary

Psychological interventions in the treatment of suicidal behaviour	
Cognitive-behavioural therapies	
1+	Cognitive-behavioural therapies are effective in adults with suicidal behaviour when compared with “no treatment” or “standard care”. When compared to other forms of psychotherapy no significant differences are found in the effectiveness (183).
1+	Cognitive-behavioural therapies are most effective when targeted at reducing some specific aspect of suicidal behaviour than when trying to reduce it indirectly by focusing on other symptoms or associated signs (183).
1+	In adults, individual cognitive-behavioural treatment or that combined with group sessions gives better results than the group format alone. However, group therapy seems more effective than individual therapy for adolescents (183).
1+	In patients with borderline personality disorder and suicidal behaviour, the effectiveness of DBT is comparable with other cognitive-behavioural treatments (183).

1+	The Tarrier et al. meta-analysis (183) concluded that CBT in group format for adolescents with previous suicidal behaviour was more effective than usual care based on a study by Wood et al. (192); however, two subsequent RCTs found no statistically significant differences (225, 226).
1+	For people over 60 years with major depression and suicidal ideation, anti-depression treatment or PST with telephone monitoring had a significant reduction of suicidal ideation compared with the standard treatment (219).
1++	In adolescents with major depression, fluoxetine combination therapy and CBT produced a more rapid improvement in comparison with fluoxetine and CBT independently; thus representing a protective effect against suicidal behaviour (193). However, in adolescents with moderate-serious depression, CBT in combination with fluoxetine and standard care was less effective than fluoxetine combined with this type of care (221).
1+	Cognitive behavioural therapy significantly reduced suicidal behaviour in those patients with borderline personality disorder (220), recurrent suicidal behaviour (223) or chronic schizophrenia resistant to medication (222).
1+	Both DBT and transfer-based psychotherapy led to a statistically significant improvement in suicidal behaviour in patients with borderline personality disorder (227).
1+	In adolescents with depression and suicide risk, PST significantly reduced depression scale scores, decreased suicide risk and significantly increased self-esteem and assertiveness (218).
3	For adolescents with borderline personality disorder and bipolar disorder, dialectical behavioural therapy may be effective in reducing suicidal ideation and behaviour (185).
Interpersonal therapy	
1+	Short-term psychodynamic interpersonal therapy performed in adults after a voluntary drug poisoning episode achieved after 6 months better results than standard care (231) (lower frequency of self-reported self-harm, lower scores on the Beck Depression Inventory and greater satisfaction with treatment).
1+	Patients over 60 years with depression and suicidal ideation had significantly decreased suicidal ideation compared with the group receiving standard care after 24 months of treatment with IPT and/or citalopram (233).
1+	An intensive IPT intervention in adolescents with suicidal risk was more effective than standard care in reducing depression, suicidal ideation, anxiety and despair (234).

Family therapy	
1+	There is insufficient evidence to determine if family therapy is an effective treatment for under-16s with suicidal ideation and behaviour (235).
Psychodynamic therapy	
1+	In patients with borderline personality disorder and alcohol abuse, deconstructive psychodynamic therapy was effective in reducing suicidal behaviour, alcohol abuse and the need for institutional care, compared with normal care (238).
1+	For patients with personality disorders, the combination of psychotherapy and cognitive behavioural therapy in a day hospital (group format for 18 weeks) obtained no better results than the standard outpatient treatment (239).
Pharmacological treatment of suicidal behaviour	
Antidepressants	
1+	In patients with major depression, treatment with selective serotonin reuptake inhibitors reduced suicidal ideation when compared with placebo, although this was not proven in long-term studies. Treatment with antidepressants has not been shown to increase the risk of suicide (244).
1++	In adolescents with major depression and suicidal ideation, combination therapy (SSRI-fluoxetine + CBT) significantly decreased suicidal ideation (193).
1+	In patients older than 60 years with major depression and suicidal ideation, continuous monitoring and combination therapy treatment (citalopram or another antidepressant + IPT) reduced suicidal ideation and increased long-term depression remission rates (233).
2+	For patients with bipolar disorder, suicide attempts were found to be more common in those receiving antidepressants alone (252). A psychopathological risk of destabilisation if antidepressants are not accompanied by mood stabilisers has been observed in patients with bipolar I disorder (253).
Lithium	
1+	Long-term lithium treatment reduces the risk of suicidal behaviour (attempts and completed suicides) by five times in patients with bipolar disorder and other affective disorders. This effect is attributed to the reduction in aggressiveness and impulsivity (271).
1+	Valproic acid and carbamazepine have also demonstrated to be effective in reducing suicidal behaviour (attempts and/or completed suicides) in patients with bipolar disorder (275); although less so than with lithium.

1+	A clinical trial found an association between treatment with lithium and a lower risk of completed suicide in patients with depressive spectrum disorder and a recent suicide attempt (276).
4	A rapid withdrawal of lithium is associated with increased suicidal behaviour in patients with bipolar disorder (90).
Anticonvulsants	
1+	In patients with bipolar disorder, the risk of suicidal behaviour (attempts and/or completed suicides) when they are treated with lithium is lower than carbamazepine or valproic acid are used (275, 277, 280).
2+	In patients with borderline personality disorder, treatment with carbamazepine has a favourable effect on the control of impulsivity and suicidal behaviour (244).
2+	Patients with bipolar disorder under continued treatment with anticonvulsants (valproic acid, lamotrigine or oxcarbazepine) have reduced rates of suicidal behaviour, although the results suggest that continued treatment with lithium is better at preventing suicide (284). There is controversy over whether or not anticonvulsant drugs increase the risk of suicidal behaviour. While the FDA warns of a possible increase, subsequent studies have found no significant association between the use of anticonvulsants and suicidal behaviour (286, 287, 290).
Antipsychotics	
2+	A systematic review of first-generation antipsychotics highlighted the high variability of the studies published so far on the treatment, dose, duration, concomitant medications and diagnoses, which limits the ability to make any general conclusions about their efficacy in suicidal behaviour (244).
4	For some authors, first-generation antipsychotics have a limited effect on the risk of suicidal behaviour (36).
1++	Clozapine has shown a significant reduction in suicidal behaviour in adult patients diagnosed with schizophrenia (292).
1+	In adult patients with schizophrenia, olanzapine has demonstrated a reduction in suicidal thinking and behaviour, although to a lesser degree than clozapine (292).
1+	Risperidone as an adjunct in adult patients with major depression and suicidal behaviour could be beneficial and reduce suicide risk (294).
Electroconvulsive Therapy	
3	Observational studies conducted in patients with schizophrenia, depressive disorder or schizoaffective disorder show positive results regarding a possible effect of electroconvulsive therapy on suicidal behaviour (301).
2+	A case-control study conducted in 30 patients with severe mental disorder with or without substance abuse, showed an improvement in the depression and suicide scores in the Brief Psychiatric Rating Scale. The results were compared to matched controls who received drug treatment but not ECT, and were more favourable in the group with substance abuse receiving ECT (313).
2+	In a case-control study conducted in patients with severe major depression (admitted between 1956 and 1969 and followed until 1998), suicide attempts were less frequent in those patients treated with electroconvulsive therapy than in those receiving antidepressants (314).

3	For patients diagnosed with unipolar major depression, ECT reduced suicidal intent, reaching zero points on the Hamilton scale for 38% of patients after one week, for 61% of patients after two weeks and 76% at three weeks (315).
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Recommendations

General recommendations	
✓	It is recommended to address suicidal behaviour from a broad perspective, in which the pharmacological, psychotherapeutic and psychosocial interventions from which the patient may benefit are comprehensively assessed with the involvement of health professionals from different levels of care.
✓	It is advisable to promote the development of a strong therapeutic alliance between patient and professional, and to have the support of the patient environment as a fundamental part of the therapeutic process.
Psychotherapeutic interventions	
✓	Psychotherapeutic techniques play an important role in the treatment of patients with suicidal behaviour. Therefore it is recommended to ensure they are available for those who need them.
B	In general, psychotherapeutic treatments of a cognitive-behavioural type are recommended for patients with suicidal behaviour on a weekly basis, at least at the beginning of the treatment.
B	Psychotherapy should always be directed at some specific aspect of the suicidal spectrum (suicidal ideation, hopelessness, self-harm or other forms of suicidal behaviour).
B	Individual cognitive-behavioural sessions are recommended for adults with suicidal ideation or behaviour, although the inclusion of group sessions as an adjunct to individual treatment can be assessed.
B	Although other psychotherapeutic techniques could be evaluated, dialectical behavioural therapy must be considered preferential in adults diagnosed with borderline personality disorder.
B	Specific psychotherapeutic treatment is recommended in adolescents: dialectical behavioural therapy in borderline personality disorder and cognitive behavioural therapy in major depression.
B	Interpersonal therapy is recommended for adults with suicidal behaviour, patients over 60 years old with depression and suicidal ideation and in adolescents with suicide risk.

Pharmacotherapy	
A	It is recommended to use preferentially treatment with antidepressants from the group of selective serotonin reuptake inhibitors in adults with major depression presenting suicidal ideation.
A	Patients over 60 years with major depression and suicidal behaviour are recommended to have monitoring continued over time with the use of combination therapy (selective serotonin reuptake inhibitors + interpersonal therapy).
A	In adolescents with major depression and suicidal ideation, the use of combination therapy (fluoxetine + cognitive behavioural therapy) is recommended.
D^{CPG}	The use of anxiolytic agents at the start of treatment with antidepressants in patients with major depression and suicidal ideation who also experience anxiety or agitation is recommended.
C	In patients with bipolar disorder and suicidal ideation, the use of antidepressants alone is not recommended unless accompanied by a mood stabiliser.
A	Lithium treatment is recommended in adult patients with bipolar disorder who have suicidal behaviour, due to its mood stabilising effect and potential for anti-suicidal action.
B	In adult patients with major depression and recent suicidal behaviour, a combination of lithium and antidepressant treatment is recommended to be assessed.
D	When ending lithium treatment, withdrawal should be done gradually, at least during two weeks.
C	For anticonvulsant treatment of borderline personality disorder, carbamazepine is recommended as the first choice drug to control the risk of suicidal behaviour.
C	In patients with bipolar disorder and suicide risk requiring anticonvulsant therapy, continuous treatment with valproic acid or carbamazepine is recommended.
✓	Special attention must be paid to the presence of suicidal ideation or behaviour in patients with suicide risk factors after treatment for epilepsy.
A	To reduce the risk of suicidal behaviour, the use of clozapine is recommended in the treatment of adult patients diagnosed with schizophrenia or schizoaffective disorder at high risk of suicidal behaviour.
Electroconvulsive Therapy	
✓	The decision to use electroconvulsive therapy should be taken after consultation with the patient, taking into account factors such as diagnosis, type and severity of the symptoms, medical history, risk/benefit ratio, alternative options and patient preferences. Written informed consent must be obtained in all cases.
✓	It is recommended that ECT always be given by an experienced professional, following a physical and psychiatric assessment in a hospital setting.
C	Electroconvulsive therapy is recommended in patients with severe major depression where there is a need for a rapid response due to the presence of high suicidal intent.
D^{CPG}	Electroconvulsive therapy is also indicated in adolescents with severe, major and persistent depression, with behaviours that endanger their lives, or those who do not respond to other treatments.

II. PREVENTION

8. General measures to prevent suicidal behaviour

Key questions:

International suicidal behaviour prevention programmes

- What suicidal behaviour prevention programmes can be found internationally?

Enhancing protective factors and resilience

- What clinical interventions are effective in the prevention of suicidal behaviour by enhancing protective factors and resilience?

Restricting access to methods for suicide

- What measures can be taken to restrict access to methods for suicide?

The media and suicide

- What measures can the media take to prevent suicidal behaviour?
- What is the role of the Internet in suicidal behaviour?

Suicidal behaviour prevention training programmes for professionals

- Are training programmes for the awareness, detection and approach to suicidal ideation and behaviour for health professionals effective in reducing completed suicide rates?
- What suicidal behaviour prevention measures could be performed for non-health personnel?

8.1. International suicidal behaviour prevention programmes

For over 40 years, the WHO has recommended the preparation and implementation of suicide prevention strategies, and in 1969 published a document recognising the importance of placing suicide prevention in the field of public health and the need to establish suicide prevention centres at a national and local level (317). In 1984, the countries of the WHO Regional Office for Europe included the reduction of suicide in its health policy objectives (318).

Later, in 1999 it issued a worldwide initiative called SUPRE (Suicide Prevention) (319) with the aim of progressively reducing mortality due to suicide. Among the objectives of the programme was reducing the morbidity and mortality associated with suicidal behaviour and eliminating taboos surrounding suicide. It emphasised that suicide prevention requires the involvement of a multidisciplinary team, including health and non-health sectors. This led to a series of documents aimed at the following professionals and social groups and situations which are particularly important in suicide prevention:

- General practitioners (74) and primary care personnel (15)
- Professionals in the media (320)
- Teachers and other institutional staff (321), psychological and pedagogical counsellors (322)
- Prison officials (323)
- Work environment (324)
- Emergency services (fire, police and lifeguards) (325)
- Suicide survivors³ (326).

The following recommendations were given in a WHO meeting on “Suicide Prevention Strategies in Europe” in 2004 after an earlier systematic review (327):

SR of studies
2+

- The prevention of suicidal behaviour requires a comprehensive approach and should be the responsibility of governments
- Suicide prevention programmes are required from the different sectors involved to include specific interventions for different risk groups
- Health personnel, especially those working in emergency services, should be trained to identify suicide risk and to collaborate with the mental health services
- Staff training and educating the general public should focus on risk and protective factors
- It is necessary to promote research and the evaluation of suicide prevention programmes
- The media should participate and follow the guidelines proposed by the WHO.

Different countries have developed strategies for suicide prevention, defined as “a global and national approach to reduce suicidal behaviour by coordinated cultural responses in numerous public and private sectors of society” (139). Countries like the USA, Denmark, New Zealand, England, Ireland, Scotland, Germany, Finland and Norway (139, 327, 331), among others, have developed national strategies for suicide prevention following the WHO proposals.

³The term suicide survivor is used to refer to the relatives of a person who has committed suicide. Although the concept has traditionally been reserved for families, it has now been extended to include non-family members (e.g. friends, work colleagues, classmates or neighbours)

Mann et al. (332) proposed a prevention model based on interventions with proven effectiveness in the prevention of suicide in patients with mental disorders and the presence of other risk factors. In this model, preventive intervention focuses on the following: training of primary care staff, suicide awareness, detection of people at high risk, pharmacological and psychotherapeutic treatment, preventive monitoring of suicide attempts, restricting access to lethal means and involvement of the media (Figure 3). SR of studies 2+

Systematic reviews conducted in this field, in line with the WHO proposals and existing suicide prevention programmes in different countries, highlight the following recommendations for the prevention of suicide (139, 318, 327, 329, 333, 334): SR of studies 2+

- Reducing the availability and access to lethal means, such as toxic substances, firearms, etc
- Improving health services and their accessibility and promoting rehabilitation and support functions
- Improving the diagnosis, treatment and monitoring of depression and other mental disorders
- Developing community interventions in the young, elderly and ethnic minorities
- Increasing awareness of health personnel; improving their attitudes to reduce existing taboos about suicide and mental disorder
- Improving training on suicide prevention for primary care physicians
- Promoting the involvement and training of professionals in educational centres
- Increasing the awareness of the general public about mental disorders and their recognition at an early stage and reducing the stigma associated with suicide
- Involving the media and promoting the responsible treatment of news related to suicidal behaviour
- Promoting research on suicide prevention and the collection of data on the causes of suicide.

The establishment of a national suicide prevention policy by governments reflects a commitment to address the problem (333). However, due to its many causes, it requires different types of interventions at different levels to reduce suicide rates over time. An additional problem is the difficulty of knowing the effect of each of the interventions, which greatly complicates the discrimination of the more effective suicide prevention strategies (335). It has been argued that some suicide prevention programmes conducted in Australia, Finland, Norway and Sweden have had little impact on reducing suicide rates among young people and the general population (336). However, subsequent studies found positive results in reducing suicides and suicide attempts after community interventions in ethnic minorities, the elderly and the young (334).

One of the prevention programmes carries out in Europe was the Nuremberg Alliance Against Depression (NAAD) in 2001 and 2002, which included training for primary care physicians, information campaigns in the media, cooperation with key figures or gatekeepers and intervention in risk groups. The results showed the effectiveness of the programme, with a significant decrease in both attempted and completed suicides (a 21.7% reduction after the intervention and 32% one year later) when compared to the reference data from Nuremberg and the other German region with which it was compared (337, 338).

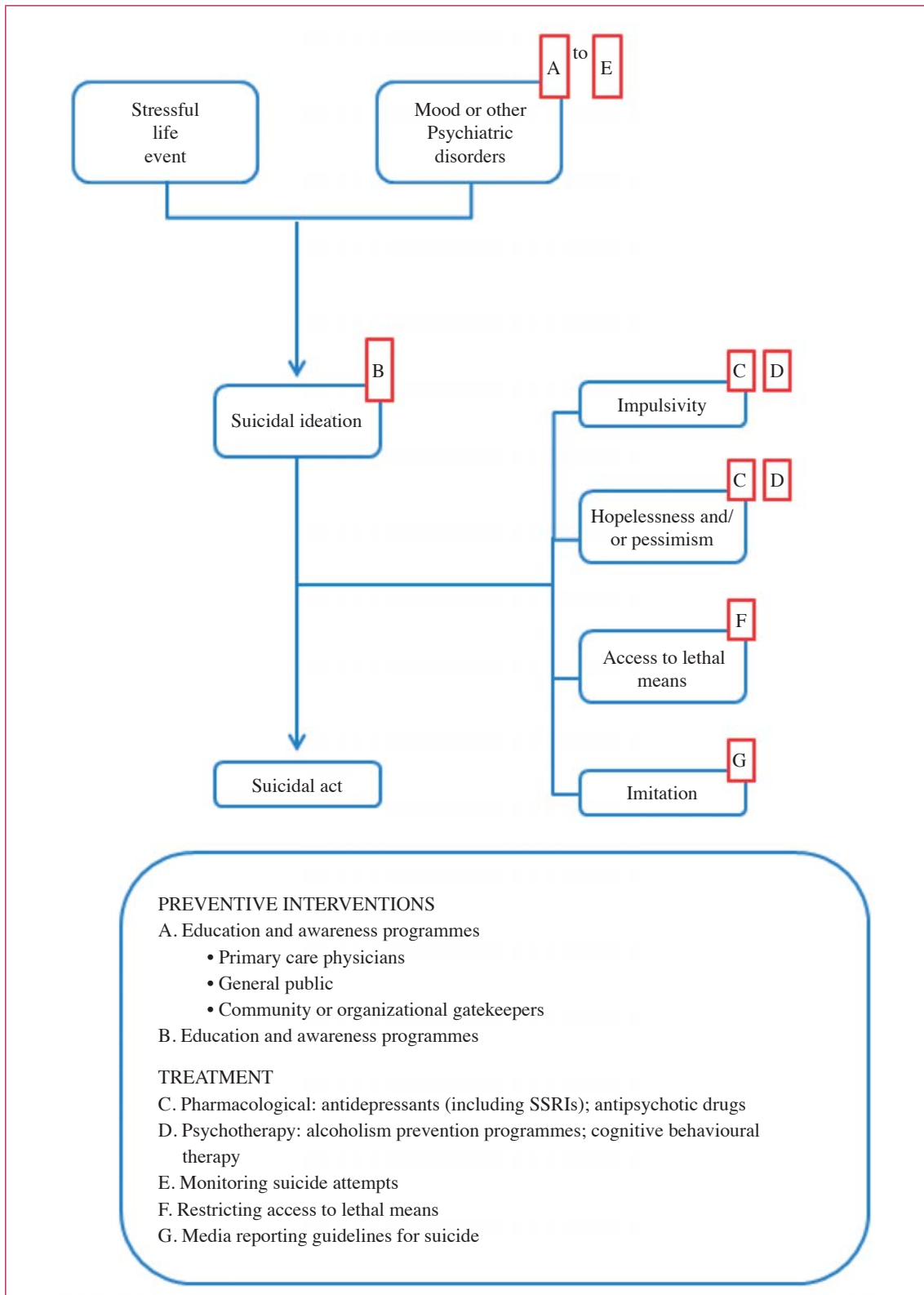
Quasi-
experimental
study
2+

After these results, the programme was launched in other parts of Germany and similar activities were initiated in 17 other European countries under the OSPI (Optimising Suicide Prevention Interventions) project (339), the European Alliance Against Depression (EAAD) (340) and the “European Pact for Mental Health and Wellbeing” (341).

Currently, a multicentre, prospective controlled study based on the lines developed by the Nuremberg project is underway. The protocol was published in 2009 and the intervention was expected to last 2 years, therefore its results have not yet been published. The study was conducted in four countries (Ireland, Germany, Hungary and Portugal), and at the four levels mentioned above (339):

- Training of primary care physicians
- Information campaigns for the general public aimed at destigmatising depression and the preparation of a set of guidelines for media professionals
- Training campaign for key figures or gatekeepers
- Intervention in high-risk groups, promoting access to mental health and providing support to patients and families.

Figure 3. Preventive intervention model based on risk factors



Source: Mann et al. (332)

Besides the above, there are a number of initiatives with the active participation of those involved, including the following (327):

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- International Association for Suicide Prevention: Brings together professionals and volunteers from over 50 countries, and is dedicated to the prevention of suicidal behaviour and to providing a discussion forum for all groups.
- Suicide prevention centres: There are several throughout Europe that provide support and early intervention, telephone support lines, training for emergency and primary care personnel, survivor support and campaigns to raise awareness about suicide among the general public.
- Verder: A Belgian suicide survivor support network with several support groups which offers recommendations about their rights.
- Human Ecological Health: Active in Ukraine, especially for prisoners and military personnel.
- Mental Health Europe: A European NGO whose aim is to raise awareness about the burden of suicide and to promote prevention programmes. Helps member organisations to implement projects and take action.

General objective 2 in the “National Health System Mental Health Strategy 2009-2013” in Spain states the following: “To prevent mental illness, suicide and addiction among the general public by conducting and evaluating specific actions to reduce the rates of depression and suicide in groups at risk, and to recommend preventive measures (preferably, specific workshops and skills training for the prevention of depression and suicide) in each of the following areas (6):

- Teaching centres
- Correctional Institutions
- Nursing homes

However, in Spain at present there is a very little implementation of any preventive programme, which is far below the level of other European countries. In fact, there is no national prevention plan as such, and so far only local initiatives have been implemented: e.g. in Galicia, where a preventive care programme has been set up; in Catalonia, which is a member of the EAAD; and Asturias, where the *Monitoring Suicidal Behaviour in Europe* (MONSUE) programme has been operating since 2007, and the Saving and *Empowering Young Lives in Europe* (SEYLE) project which was started in 2009 (342).

8.2. Enhancing protective factors and resilience

Although research on suicidal behaviour has traditionally focused on the risk factors, the fact that they do not affect all people in the same way suggests the existence of protective factors that could be modifying this risk.

The interest in protective factors is because empowerment could help prevent suicide. However, few studies have focused on its assessment which has certain difficulties: some of the factors proposed have been extrapolated from research in other fields; there is no consistency in the terminology used; and sometimes proposed protective factors are the positive description of a risk factor (40).

The protective factors for suicidal behaviour with the most evidence of association can be classified into personal (40, 63, 64, 343345) and social/ environmental (18, 19, 40, 43, 44, 63, 317, 344) factors (Table 35).

SR of different study types 2++, 2+, 3

Table 35. Protective factors associated with suicidal behaviour

PERSONAL	SOCIAL/ENVIRONMENTAL
<ul style="list-style-type: none"> - Problem-solving skills - Having confidence in yourself - Ability to form social relationships - Cognitive flexibility - Having children (more evidence in women). - Positive values and attitudes, particularly against suicide - Education level medium-high - Healthy living habits - Outgoing nature, openness to experience, responsibility - Internal locus of control - Perception of self-efficacy 	<ul style="list-style-type: none"> - Strength and quality of social and family support - Social integration - Having religious beliefs and practices, spirituality or positive values - Adopting cultural and traditional values - Receiving comprehensive and long-term treatment (patients with mental disorders, physical illness or alcohol abuse) - Having support systems and resources

Source: Prepared by the authors

A concept closely related to protective factors that has gained importance recently is that of resilience. This refers to the ability of individuals and systems (families, groups or communities) to cope successfully or positively with stressful situations. It has also been described as an ability, perception or set of beliefs that protect the subject from developing suicidal behaviour when faced with risk factors or stressors (346).

SR of different study types 3

The protective factors related to resilience that have been most associated with the prevention of suicidal behaviour are the following (346):

- Skills and cognitive processes: An attributional style could play a central role in suicidal behaviour, such that if positive it could moderate the risk of suicide. Also there is some evidence regarding confidence in the ability to solve problems.
- Beliefs and attitudes: of all the variables studied, a high level of autonomy is the one with the most evidence and that could play a preventive role. Other variables that might be involved and mitigate the risk of suicide are perceived social support, attachment and beliefs related with suicide.

In spite of the fact that fostering resilience is one of the preventive foundations in mental health, especially in childhood, adolescence (347) and the elderly (348), most studies have focused on risk factors (e.g. social isolation, depression and other mental disorders), with the research on enhancing protective factors still very limited:

Universal prevention

In a study conducted at the school level, we investigated the effectiveness of a programme based on enhancing protective factors for the prevention of suicide, compared with a control group on a waiting list, by involving peer group leaders (349).

RCT
1+

The study was conducted in 18 centres in the USA (6 in a metropolitan area and 12 in rural areas). The programme was implemented on 453 adolescents, nominated by professionals and students in each school. The training was performed on 2-3 workers and adolescents at each centre, and consisted of learning about protective factors for suicide, skills and resources with a final phase of peer communication regarding everything that had been learned. At 4 months, a significant improvement was found with these adolescents regarding suicide-related values, communication with adults and involvement at school. The intervention had a significant effect on the students in general, by increasing perceptions of support from adults and by the acceptance of asking for help (349).

Selective prevention

Due to the increase in Aboriginal teenage suicide in Australia, a prevention programme took place as part of the national plan for suicide prevention. It was based on information about protective factors and was directed at mental health and education personnel, families and adolescents. The programme consisted of 4 stages, each lasting 10 weeks, with participants attending a 4-hour session each week. At the end of it, a significant increase in the ability to control adverse circumstances (empowerment), self-esteem, resilience, problem-solving skills and wellness was found (350).

Qualitative
study Q

Indicated prevention

A systematic review of preventive interventions in patients over 50 with risk of suicide included, among other studies, 2 focused on enhancing protective factors (348).

SR of
different
study types 3

The first was based on group CBT and its objective was to improve the subjective well-being of early retirees (50-65 years). The sample consisted of 21 individuals selected for having suicidal ideation, who were divided into the CBT group (n = 10) and control group (n = 11 participants from another study of adaptation to retirement). At the end of the programme, the experimental group had lower levels of depression and psychological distress and a significant increase in variables such as hope, goals, serenity, flexibility and a positive attitude towards retirement; this improvement was maintained at 6 months (351).

The second study was conducted with people aged over 60 years, with a high risk of suicide, to improve their functioning and social skills with an IPT-based programme (1 session per week for 16 weeks). At the end of the intervention, a significant reduction in levels of depressive symptoms, suicidal ideation and ideas of death was found compared to baseline (352).

8.3. Restricting access to methods for suicide

Various studies have shown that suicides carried out by a certain method are reduced when this is less accessible (318), although in some cases the overall suicide rates are offset by increased suicide by another method (329, 332). The restriction of the method depends on the country, with more emphasis placed on some than on others (139).

The most frequently cited measures restricting access to lethal means are as follows (139, 318, 329, 332, 334):

SR of studies
2++

- Restriction of sale of psychotropic drugs
- Reducing analgesic pack size: legislation limiting the pack size of over-the-counter paracetamol and salicylates in the UK reduced the suicide rate by 22% (139)
- Using less toxic antidepressants
- Reduction in carbon monoxide emissions from vehicles
- Decreased toxicity of domestic gas (e.g. in Switzerland and the UK) (332)
- Installation of barriers in high places
- Restriction on the possession and control of firearms: the availability of firearms increases the risk of suicide in all age groups, including children (e.g. in the USA) (139)
- Control of pesticides (e.g. in rural China).

8.4. The media and suicide

8.4.1. The communication media

There seems to be an association between an inadequate treatment of a news item about suicide and an imitative effect, called contagion suicide or the Werther effect (353). By contrast, the form and the content of a suicide news item may also have a preventive effect, known as the Papageno effect (354). Because of this complex interaction, different countries have developed guidelines for the media on how they should approach news about suicides, but there are few studies that have evaluated the effectiveness of these measures on reducing rates.

Within the SUPRE programme, the WHO published what is considered to be a reference document, which offered a series of recommendations for the media on how to approach and publish news items about suicides or suicide attempts (Table 36) (320).

Expert
opinion
4

The same document also recommended publishing the frequent association between suicide and depression and that this is a treatable disorder, as well as offering support to relatives and providing information on available help resources (320).

Besides these WHO guidelines, different countries have also compiled recommendations for the media, as is the case in Australia, New Zealand, USA, Canada, UK, Hong Kong and Sri Lanka. The most important recommendations contained in these guidelines are as follows (355):

SR of
different
study types
3, 4

- Do not give a sensationalist treatment about suicides on the news
- Avoid specifying details about its features and circumstances
- Provide accurate, responsible and ethical information
- Take the opportunity to educate the public
- Provide information on available aid resources
- After a suicide, always take into account the effect on families and friends
- Consider journalists as vulnerable people (in only 3 guidelines).

Table 36. WHO recommendations on reporting suicide in the media

WHAT TO DO
<ul style="list-style-type: none"> – Work closely with health authorities in presenting the facts – Refer to suicide as a fact, not as an achievement – Present only relevant data on inside pages – Highlight alternatives to suicide – Provide information on help lines and community resources – Provide information on risk factors and warning signs.
WHAT NOT TO DO
<ul style="list-style-type: none"> – Publish photographs or suicide notes – Report specific details of the method used – Provide simplistic reasons – Glorify or sensationalise the suicide – Use religious or cultural stereotypes – Attach any blame.

Source: Modified from the WHO (320)

More recently, the WHO conducted a systematic review of all the studies that had analysed the impact of the media on suicide and the effect of guidelines on how to report news of suicides (353) (Table 37).

SR of
different
study types
2+, 3

As shown in this review, there is consistent evidence of a relationship between inadequate reporting of suicide and an increase in it. In particular, any news that glamorises or dramatises suicide and involves famous people is related with copycat behaviour. It is therefore important for the media to be involved in suicide prevention by reporting that information responsibly (353).

SR of
different
study types
2+, 3

From these results, the WHO reiterates its recommendation to the media for responsible reporting of news about suicidal behaviour, as well as not to make it seem normal and avoiding the use of sensational language, images and descriptions of the method used. It also re-emphasises the need to include information on existing prevention resources and where to ask for help (353).

Expert
opinion
4

Repeating the same news item about a suicide as well as referring to associated myths are related to an increase in the number of suicides. However, it has been seen that information about suicidal ideation not associated with suicides offering coping strategies for adverse circumstances may have a preventive effect (354).

Case series
3

However, it seems there is little evidence that these recommendations have had an effect on how the media treat suicidal behaviour.

Table 37. Studies included in the WHO systematic review on the effect of reporting suicides in the media and the impact of the guidelines

Author;year (reference)	Objective	Results
Stack; 2000 (356)	To examine the impact on suicidal behaviour of disclosure of suicides in the media.	<ul style="list-style-type: none"> – The news of celebrity suicides increased the likelihood of suicide contagion by 14.3% – The probability of association between fictional suicides was 4.03 times higher than in the case of real news, though reports of suicides in the newspapers was also a significant predictor of suicidal behaviour – The higher the number of suicides appearing in the media, the greater was the effect found. There was no evidence of any differences by age group; although, studies with different methodologies were included.
Pirkis and Blood, 2001(357, 358)	To examine the effect of the publication of news about suicides.	<ul style="list-style-type: none"> – The appearance of a suicide news item in newspapers, television and books was associated with a significant increase in suicides, especially when related to public figures – The most vulnerable groups were the young and middle-aged – The effect was not conclusive for fictitious suicides occurring in films, music or television.
Sudak and Sudak, 2005 (359)	To examine the impact of the media on suicide.	<ul style="list-style-type: none"> – An increase in suicide was found after an improperly reported suicide news item – The suicides that most influenced the suicidal behaviour of others were performed by celebrities, politicians and women – The impact of the media guidelines was inconclusive.
Mann et al.;2005 (332)	To review the evidence regarding the media guidelines.	<ul style="list-style-type: none"> – Two studies related the media guideline recommendations being implemented with a decrease in suicide rates.
Pirkis et al.;2006 (355)	To evaluate the relationship between suicide and the media.	<ul style="list-style-type: none"> – There is a clear relationship between the news and increased suicide, although in the case of fictional media (e.g. literary or cinematic) the relationship is not clear – Existing guidelines for the media include similar recommendations. Their implementation has been variable, although the most common dissemination method is by emailing the media – Two studies evaluating the effect of the guidelines were included. One was done in Switzerland, and found an increase in the quality of the news about suicide, but did not assess its impact on suicide rates. The other study, conducted in Austria, found a 70% reduction in suicide rates on the metro and 20% in the overall rates of suicide.

Source: WHO (353)

After an increase in the number of suicides on the metro in Vienna (Austria), a study was done in that city involving the preparation of guidelines for the media and prevention campaigns. There was a 75% decrease in the number of suicides on the subway and 20% in the overall suicide rate (360). A subsequent study in Austria again observed a significant reduction in the annual rate of suicide, this time at the national level and especially in regions where newspapers collaborated more actively. It also highlighted the impact of the guidelines on the quality of the information provided (361).

Quasi-experimental study 2+

Another study in Hong Kong compared the news published before and after implementation of a campaign directed at the media; it consisted of seminars where the guideline based on the WHO recommendations was presented. After the implementation of this preventive campaign, suicide rates were observed to decline and fewer images and headlines about suicides were published in the print media; although this was attributed to changes in the newspaper format after the campaign (362).

Quasi-experimental study 2+

Finally, it is worth noting that a close collaboration between health professionals and the media is required for the preparation and implementation of these guidelines. Thus, a qualitative study using interviews with 15 journalists from New Zealand showed a recognition of their need to be involved in the promotion of public health and great empathy for the victims and their families. However, one of the main barriers to the adoption of the guideline recommendations was scepticism towards the copycat effect of suicidal behaviour caused by media coverage. It is important to realise that personnel are engaged in a professional, organised culture, so that any attempt to implement guidelines or recommendations must take them into account (363).

Qualitative study Q

8.4.2. The Internet

Although the influence of the Internet on suicidal behaviour has been less investigated than other more traditional media, it has the same ambivalence in relation to suicidal behaviour as other media: on the one hand, it provides a context for information and social interaction that could have negative consequences for suicidal behaviour, but could also be a good means of prevention.

Durkee et al. (364) recently published a systematic review analysing the relationship between the Internet and suicide. It focused on the pathological use of the Internet, pro-suicide web pages, suicide pacts and suicide prevention.

The pathological use of the Internet has been associated with the presence of depression, anxiety, obsessive-compulsive disorder and antisocial behaviour, and in some studies with the presence of suicidal ideation and behaviour (364).

SR of different study types 2+

Pro-suicide websites

The large amount of information available on methods and forms of suicide is clear by entering keywords related to suicide in the main search engines (e.g. Google, Yahoo, MSN and ASK) (364). In one of them, it was found that 30% of the content of web pages visited was related to information on suicide methods, while only 25% was related to preventive aspects (365). Another study found that of 373 pages with content related to suicide, 11% could be classified as pro-suicide, 30% as neutral and 29% as anti-suicide (366).

SR of
different
study types
2+, 3

It is important to note that information about suicide on the Internet has increased steadily in recent years, and young people are the most vulnerable. A study conducted in 2009 found that the volume of information about suicide on the Internet was inversely correlated with its occurrence, when age was not taken into account; i.e. the more information there was on the Internet, the fewer the number of suicides there were. However, when the 15-25 years age group was analysed, this relationship was direct: i.e. the more information there was, the higher the suicide rate. This study demonstrates how adolescents and young adults can use the information in a self-destructive way (367).

Case series
3

Social networks and forums also represent an important source of information and of social relationships on the Internet, and it is estimated that 70% of young people use them; with one of them being among the most used, with up to 500 million users worldwide (368).

Case series
3

In a recent study of 719 interviews with young people aged 14 to 24 years, it was found that information on suicide came in 79% of cases from traditional sources (family, friends or newspapers), although computer sources were also very common (59%). Specifically, social networks were cited as a source in 24% of cases, although their use was not associated with increased suicidal ideation. However, the discussion in forums on suicide was associated with a significant increase, as well as being a relatively common source of information (15%), (368).

Case series
3

Finally, studies of interviews with people about suicide forums revealed that they were perceived as a means of offering empathy, feedback and support for psychological and social problems (364).

Suicide pacts

A suicide pact is a decision between two or more persons to carry out suicide at a given time and place. Suicide pacts on the Internet usually occur in chat rooms and there are examples in countries like Japan, UK, Norway and South Korea (364).

SR of
different
study types
2+, 3

Although suicide pacts are the most common manifestation, there are also variants such as online narrated suicides and suicide simulation on the Internet itself (369).

Expert
opinion
4

Suicide prevention via the Internet

The Internet can be a good tool for the promotion of mental health and suicide prevention. Some of the advantages are (364):

SR of
different
study types 3

- Facilitates social interaction
- Easy access and quick dissemination of information
- Provides information on health-related issues, so it can be a good educational platform
- Provides support by the appropriate use of social networks and chat rooms.

Although there is little literature on the subject, the results of the studies to date are promising.

Among them, a study of college students who had participated in *online* screening for depression and suicide risk and a subsequent personal interview, compared those who maintained online contact with the therapist with those who did not. It was found that students who maintained contact with the therapist via the Internet were more likely to enter treatment than those who had a personal interview; possibly because these *online* contacts offer privacy and are easily accessible, thus helping them maintain feedback and motivate those students at risk of suicide to seek help (370).

Case series
3

Another study analysed the proportion of suicide-related contacts on a helpline, in a chat room (with real-time response) and on an asynchronous online self-help group (i.e. the response did not occur in real time). Threats of suicide were more common in the online support group than the telephone line or chat room. The results suggest that groups promote the communication of feelings, in comparison with an individual chat when the response is immediate (371).

Case series
3

As is the case for any other media, any measure that attempts to regulate content about suicide on the Internet must seek a balance between freedom of expression and the protection of public health. Some proposed measures are shown below (365):

Expert
opinion
4

- The use of filtering software by the family to prevent access to certain forums or blogs
- Attempting to have pages with useful information for patients (those aimed at prevention or offering support) are given priority when a keyword search is performed
- Controlling Internet content (through legislation, or the involvement of organisations or service providers).

Some countries already conduct an active control of this information, as is the case with the Internet Watch Foundation in the UK. Also, in 2006 Australia prevented the Internet from being used to promote the idea of suicide or providing details of how to carry it out; while in Japan and Korea the service providers exercised an active control over this material (365).

An example of these measures was provided by Google in 2010, which implemented a feature to provide information about suicide help resources. It consisted of prompting a suicide help and information telephone number to appear when typing the word ‘suicide’; this has been carried out in several countries, including Spain.

8.5. Training programmes for the prevention of suicidal behaviour

8.5.1. Health personnel

Since 1969, the WHO has recommended suicide prevention training in medical schools to provide students with knowledge of suicidal ideation and behaviour (317). Subsequently, the 2004 NICE guide (53) recommended that all medical and non-medical staff who may come into contact with people with suicidal behaviour have proper training to try and understand these patients. The 2011 update of this guide (372) devotes a chapter to the training of health staff in primary care, mental health, emergency and other professionals in the health field. Also, the 2011 *European Psychiatric Association* (EPA) guide for the treatment and prevention of suicide (373) dedicates a section to improving the skills of medical personnel.

General training programmes

The *Skills-based Training On Risk Management* programme (STORM) for suicide prevention is aimed at general practitioners, mental health specialists and other health personnel (164, 372, 374). This programme evaluates the results by analysing suicide rates in areas where the study was conducted. No decrease in the rates was observed; however, significant improvements in the attitude and confidence of staff were found (164, 374).

SR of studies
2+, 3
Quasi-
experimental
study 2+

As in previous studies, this later study (375) on the implementation of this programme found significant changes in attitude and confidence. The dissemination and adoption of measures began as soon as the programme was organised, with resources provided and training of trainers performed. The key points of the implementation were the presence of a support leader, to encourage and demand the above, as well as financial support.

Quasi-
experimental
study 2+

The NICE guide (372) recommended training for professionals in the health and social care fields. This training should include assessment, treatment and management of suicidal behaviour and awareness of the stigma and discrimination that is generally associated with these people. It also made a number of recommendations:

SR of
different
study types
2+, 3

- Training should be aimed specifically at improving the quality of care for people at risk of suicide
- It should involve people at risk of suicide in planning and implementing the training
- Training programmes should use the information on care as perceived by the patients as an outcome measure
- The emotional impact of suicide on personnel and their ability to perform competently and empathetically should be considered.

In turn, the EPA guide (373) believes that the training of doctors and other health workers by psychiatrists is an effective method in the prevention of suicide. As in previous studies, participants in the training courses (primary care, mental health and emergency physicians) increased their knowledge, improved the detection and treatment of depression and showed positive changes in attitudes, while diminishing the taboos and stigma about suicide. The authors consider that continuing education of health personnel in contact with persons with suicidal behaviour is necessary, since training will help improve prevention and treatment strategies.

SR of
different
study types 3

Finally, a programme based on the training of trainers (376) assessed the ability of people attending courses when implementing measures and activities in their workplaces and maintaining them over time. The study also analysed the obstacles to the implementation of preventive measures in their respective centres. The programme was targeted at health personnel in general and was evaluated at 5 years by a telephone interview. The results showed a positive attitude towards the programme, after which they were able to make a series of short-term preventive activities, as well as develop and maintain them on a long-term basis in their workplaces; with the support and commitment of their centres being very important.

Quasi-
experimental
study 2+

Training programmes in the primary care field

As mentioned above, most doctors have had contact at some point in their career with a patient at risk of suicide and, in fact, 75% of people who have attempted suicide contacted their primary care doctor up to a year before the event. Therefore, these professionals must have adequate training in the assessment and management of suicidal ideation and behaviour (377).

Studies indicate that most professionals do not have sufficient clinical training to provide appropriate assessment and treatment of patients with suicidal behaviour or clear criteria about when to refer to specialist care (378). Data from a survey of 1100 managers of training programmes in family medicine, internal medicine and paediatrics showed deficiencies in the formation of these groups in the management of depression and suicidal behaviour (379); and this is in spite of the WHO recommendation that primary care personnel should be available, accessible, informed and committed to providing care to people at risk of suicide (190). Therefore, the training of primary care physicians is one of the most important suicide prevention strategies (329, 332), due to their prolonged and close contact with the community and to being the link between it and the specialist healthcare system (190).

All the programmes reviewed on the training of primary care personnel in the prevention of suicidal behaviour take medical training into consideration for improving the capacity of detection and treatment of depression (38, 380-384).

The following table (Table 38) summarises the features of the programmes.

The duration of the programmes and their formats are varied, ranging from 3-4 hours (372, 380) over two days of on-site training (382) or mixed formats of up to 35 hours of online training and 8 days of on-site training (381). The methods used are lectures, role-playing and case analysis, with different results being found according to the different methodologies.

Case control
study
2+
Quasi-
experimental
study
2+

Table 38. Training programmes in primary care

Author, year, country, reference and evidence level	Training Programme: Type and duration	Evaluation
Rutz W. 1996, Gotland, Sweden (384) Case-control study, 2+	2 parts over 2 years: each part presented twice in two days. Programme: lectures, case discussions and group sessions on depression Part 1: Classification, aetiology, treatment, clinical cases and videos Part 2: Depressive disorders in childhood and adolescence, suicide, psychosocial factors, psychotherapy and aspects of patients and their families.	Short and long term: – Prescription of antidepressants and anxiolytics – Suicide rate at 2.5 and 9.5 years.
Hegerl, Germany (337, 338) Pre-post study, 2+	12 sessions in two years on diagnosis, treatment and suicidal tendencies. 4-hour sessions with maximum of 15 participants; 2 x 20-minute videos: one for physicians and one for patients and families.	– Rates of attempted and completed suicides. – At the end of the programme and year.
Zonda et al, 2006, Hungary, (383) Case-control study, 2+	2 days 1st day: lectures and clinical cases. 2nd day: focus on depression.	Short and long term: hospitalisation of patients with panic or depression disorder, suicide rates and prescription of antidepressants.
Roskar et al, 2010, Slovenia, (380) Pre-post study, 2+	4 hours: 2 theoretical and 2 role-playing. Based on the study of Gotland.	Short and long-term: Prescription of antidepressants and anxiolytics, suicide rate at 3 years.
Madrid Society of Family and Community Medicine, 2010, Spain (381) Expert opinion, 4	Online (1 month, 35 hours) and 8-hour day in classroom.	
Taliaferro et al, 2011, USA (382) Expert opinion, 4	Interactive courses with role-playing, expression of feelings, orientation of resources and referral to specialists.	
NICE, 2011, Great Britain (372) CPG (SR), 2+, 3	4 studies: 3-hour session, with oral presentation and group discussion.	

CPG: Clinical Practice Guidelines; NICE: National Institute for Health and Care Excellence; SR: Systematic review
Source: Prepared by the author

In the case of the Nuremberg programme, a decrease in suicide rates was also observed at the end of the implementation and a year later. However, as it is a multilevel programme with several lines of intervention, the results cannot be attributed only to the training of primary care professionals (337, 338). For the outcome variables not directly related to suicide, the most important results show a significant improvement in attitude and confidence, with a positive assessment by staff regarding the acquisition of knowledge about assessment and crisis management (372, 373, 380, 382, 383).

The authors of the various studies agree on the need to perform this type of training (380, 381, 383, 384) and that programmes should include information on epidemiology, risk factors and protection, as well as those warning signs that appear more frequently in people with suicidal ideation and behaviour (382).

Training programmes for mental health personnel

Since 1969, the WHO has recommended that mental health professionals, including psychiatrists, clinical psychologists, mental health nurses and social workers receive specific training on suicide, with particular emphasis on the assessment of suicide risk just before discharge (317).

A systematic review (385) on training programmes for health staff, especially mental health, contains 12 programmes performed in the USA. These are summarised in Table 39.

Table 39. Training programmes in mental health

Programme	Training Programme: Type and duration	Evaluation	Results
<i>The Air Force Managing Suicidal Behavior Project (US Air Force Suicide Prevention Programme: http://afspp.afms.mil)</i>	<ul style="list-style-type: none"> – Lectures – 12 hours months. 	Pre-post at 6 months	Post-training improvements in some aspects, such as trust. The results are not conclusive about the impact on training.
<i>Assessing and Managing Suicidal Risk (AMSR; SPRC: http://www.sprc.org/traininginstitute/index.asp)</i>	<ul style="list-style-type: none"> – Lectures, general group discussion – 7 hours. 	---	---
<i>Certification in the Chronological Assessment of Suicide Events (CASE; Training Institute for Suicide Assessment and Clinical Interviewing: http://www.suicid-eassessment.com/)</i>	<ul style="list-style-type: none"> – Lectures, small group discussions, general discussion, videos and role playing – 6 hours. 	---	---
<i>Collaborative Assessment and Management of Suicidality (CAMS; Catholic University: http://psychology.cua.edu/faculty/jobes.cfm)</i>	<ul style="list-style-type: none"> – Lectures – 6 hours. 	---	---
<i>Question, Persuade, Refer and Treat (QPRT; QPR Institute: http://www.qprinstitute.com)</i>	<ul style="list-style-type: none"> – Lectures – 8 hours. 	Pre-post immediately in gatekeeper.	Significant increase in post-test knowledge.

<i>Recognizing and Responding to Suicide Risk (RRSR, American Association of Suicidology: http://www.suicidology.org)</i>	<ul style="list-style-type: none"> – Lectures, small group discussions and general discussion, writing about a case and role-playing – 15 hours. 	Pre-post immediately in gatekeeper	Increased screening and detection.
<i>Risk Assessment Workshop (Department of Psychology, University of California San Francisco (UCSF): http://psych.ucsf.edu/faculty.aspx?id=296)</i>	<ul style="list-style-type: none"> – Lectures and writing about a case – 5 hours. 	Pre-post immediately in mental health professionals	Improved confidence and ability compared to the control group.
<i>Skills-Based Training on Risk Management (STORM; The Storm Project, University of Manchester, UK: http://www.medicine.manchester.ac.uk/storm/)</i>	<ul style="list-style-type: none"> – Small group discussions, role-playing and videos – 6 hours. 	Pre-post at 4 months in professionals and pre-post immediately, 2 months and 6 months in gatekeeper.	Improvements in knowledge, attitudes and confidence; no changes in abilities.
<i>Suicide: Understanding and Treating the Self-Destructive Processes (Glendon Association: http://www.glendon.org/)</i>	<ul style="list-style-type: none"> – Small group discussions, role-playing and videos – 6 hours. 	Pre-post at 2 months in mental health professionals.	Improved confidence.
<i>Suicide Assessment Workshop (Queen Elizabeth Psychiatric Hospital, Birmingham, UK: http://www.uhb.nhs.uk)</i>	<ul style="list-style-type: none"> – Lectures and videos – 5 hours. 	---	---
<i>Suicide Care: Aiding Life Alliances (LivingWorks, Inc: http://www.livingworks.net/)</i>	<ul style="list-style-type: none"> – Small group discussions and general discussion – 8 hours. 	Pre-post at 2 months in gatekeeper.	Greater confidence and improved skills.
<i>Unlocking Suicidal Secrets: New Thoughts on Old Problems in Suicide Prevention (Training Institute for Suicide Assessment and Clinical Interviewing: http://www.suicideassessment.com/)</i>	<ul style="list-style-type: none"> – Small group discussion, general discussion, lectures and videos – 6 hours. 	---	---

Source: Compiled by the authors from Pisani et al. (385)

The programme lasted for an average of 7.5 hours (between 5 and 15), with the most common format being lectures and group discussions. Only 7 of the 12 studies conducted a study to evaluate the results, and most examined the effect of training on the knowledge, skills and attitudes of the participants, without considering any outcome variable associated with suicidal behaviour (385).

SR of studies
2+

The results showed that the training workshops are an effective means of transmitting knowledge, improving confidence and promoting changes in attitudes. Only 2 programmes reported improvements in skills (*Risk Assessment Workshop and Suicide Care: Aiding Life Alliances*). The review authors concluded that there are valid training programmes for mental health personnel, and that the large number of professionals involved in these workshops each year demonstrates the importance of training as a suicide prevention strategy (385).

Training programmes in the Emergency department

Emergency departments have a responsibility to provide an initial assessment of patients seeking health care and prioritising them according to their severity, including patients at risk of suicide. Thus emergency personnel must have adequate knowledge on dealing with suicidal behaviour, as it has been seen that training in the assessment and management improves attitudes and increases the skills and safety when caring for these patients (372).

Chapter 6 on the evaluation of patients with suicidal behaviour in the emergency department lists recommendations on items to be addressed in emergency medical training.

Training programmes aim to improve the general concepts, the risk and protective factors and develop the skills needed to conduct clinical interviews and psychopathological assessment (164, 372, 374, 375, 386-388). The features of programmes found in the literature are varied: they can last 2-3 hours (386, 388) or 4 days, continuously or not (164, 374, 375); they may be intended for resident physicians (386), emergency personnel in general (375, 387, 388), only emergency physicians (381) or for several professionals at a time (164, 374, 375); they may focus on different groups of patients, such as children and adolescents (386), people who attempt suicide by poisonous means (387) or patients with suicidal behaviour in general (388).	Quasi- experimental study 2+ Case series 3
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The NICE guide (372) also highlights that training helps reduce feelings of anxiety and helplessness among professionals attending people with suicidal behaviour. The authors agree on the need to implement such programmes in emergency services. Table 40 shows the most important features of studies performed.	SR of different study types 2+
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All programmes reviewed results showed an increase in knowledge and self-efficacy in the management of suicide attempts and violent behaviour (372, 373, 375, 386-388).

Table 40. Training programmes in the emergency department

Author, year, country, reference, evidence level	Training Programme: Type, duration and frequency	Participants	Evaluation
Cailhol et al, 2007, Switzerland, (387); Case series 3	<ul style="list-style-type: none"> – Training focused on containment and detection of violent behaviour – Talks, frequent staff meetings, protocols, reports after the intervention and presence of the doctor in all the security interventions. 	Physicians, nurses and security personnel.	Evaluation before and 5 months after the start of the programme.
Shim et al 2010, USA, (388) Case series 3	<ul style="list-style-type: none"> – 2 hours of didactic lectures (e.g. definitions, risk and protective factors) – 1 hour open discussion. 	Emergency staff.	Short-term evaluation before and after the training.
Horwitz et al, 2011, USA, (386) Case series 3	<ul style="list-style-type: none"> – 5 modules of 30 minutes: <ol style="list-style-type: none"> 1. Prevalence and risk factors 2. Diagnoses related to suicidal behaviour 3. Development of skills in psychiatric interviews and evaluations 4. Performing a mental examination and collecting the information 5. Familiarising the physician with a new way of care. 	Resident physicians.	Short-term evaluation. Knowledge test was performed at the end of the programme.
NICE 2011, (372) CPG (SR), 2+, 3	<ul style="list-style-type: none"> – 4 studies included. 	Different groups of professionals.	

NICE: National Institute for Health and Care Excellence; SR: Systematic review. Source: Prepared by the authors.

Other training programmes

Specific programmes have been located for particular personnel working in the hospital environment, such as nurses (389-391) and resident physicians (392):

- **Nurses:** The training is given based on case discussions, *role-playing* and lectures, either on-site (389-391) or *online* (390). The results of these programmes showed improvement in participant competence and attitudes towards the identification and treatment of patients with suicidal behaviour (389-391). Quasi-experimental study 2+

- Internal Medical Residents: The programme consists of two hours of training, as handling skills are best immediately after the completing the course. At 6 months, however, the skills did not remain, but the changes that occurred in attitude and confidence were maintained over time (392). Case series
3

Training programmes in Spain

The document “Recommendations for prevention and management of suicidal behaviour in Spain” (342) by a wide group of national experts recommends considering the following factors for the future implementation of educational initiatives in health personnel: Expert opinion
4

- Being aware of the needs for the area where the programme is to be implemented
- Promoting and improving the ability to identify people at suicide risk
- Providing diagnostic support tools to facilitate such detection
- Improving the capacity of detection (diagnosis) and therapeutic management of mood disorders
- Ability to facilitate improvement in the diagnostic and therapeutic management of other pathologies (or population groups) which are associated with a high prevalence of suicidal behaviour in the area of the programme
- Taking into account gender differences when implementing educational programmes
- Fostering collaboration with specialist assistance and providing appropriate referrals to it for patients at risk
- Needing to launch booster sessions every two years.
- Increasing effectiveness of multilevel educational programmes (also targeted at the general population and key figures, or gatekeepers)
- The need for internal and external evaluation of the programme.

The clinical programmes for the prevention of suicidal behaviour conducted nationwide also include training directed at personnel:

- Intensive Intervention Programme in Suicidal Behaviour for the Ourense Health Area (393, 394): The programme included a training course for doctors and nurses in primary care. The aim was to increase the capacity of detection and initial management by primary care physicians in patients at risk of suicide, and to publicise health care alternatives and criteria for referral to a mental health unit.
- Suicidal Behaviour Prevention Programme in the Montjuïc district of Eixample, Barcelona (395, 396): Within their specific objectives were public information, awareness and education in detecting the population at risk, as well as the initial management and appropriate referral to specialists. This information and education programme was aimed at healthcare professionals and other groups, such as rehabilitators, educators, families and the general population.

8.5.2. Non-health personnel

Educational centres and social services

The WHO recommends the theoretical and practical training of teachers, educators and students to increase awareness and understanding of the risk of suicide and to encourage them to acquire more skills and resources for understanding, preventing and capacity to cope with suicide (321). These programmes can help teachers identify students who are at risk of suicide and help students be aware of how they can help their companions with problems (322). Training should be designed to increase communication skills on issues relating to suicide, to improve the ability to identify the symptoms of depression and suicidal behaviour and increase awareness about available resources (321).

Expert
opinion
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These programmes are extended to the so-called key figures or gatekeepers (329, 332, 377, 391). Within schools, the key figures could be teachers, companions, psycho-pedagogical counsellors, extracurricular activity monitors or other school staff members.

Training times in these programmes were variable, ranging from 32-36 hours to 5 days (397), with 2 days being the most usual (397, 398).

SR of studies
2+
Quasi-
experimental
study
2+

Some authors propose the following for good implementation of the programmes in educational centres (399):

- Being supported by the school management
- Volunteering at the start of the course
- Being brief
- Intended the training for all staff in the school.

Expert
opinion
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Table 41 summarises the features of suicide training programmes in educational centres.

These programmes, established in schools, universities and youth centres, show significant gains in confidence, the perception of skills and a greater understanding of suicidal behaviour (397-403). They are maintained over time for 3-6 months (397, 398, 402, 403) and even 18 months, with necessary booster sessions of the initial training over time (400). The results showed that providing specifically designed training can help staff/students in a school (397-403) or juvenile facility (400) feel they are better prepared to support youngsters at risk of suicidal behaviour.

There are no data on the influence of this type of training activity on the rates of suicide attempts and completed suicides; also, the study evaluation time was very short (3-6 months).

Table 41. Training programmes in educational centres

Author, year, country, reference, evidence level	Training Programme: Type, duration and frequency	Participants	Evaluation
Gibbons et al, 2008, USA, (399) Expert opinion, 4	– Knowledge about suicide, myths, behaviours, attitudes, role-playing and case studies.	Educational centre staff.	Before and immediately after training.
Robinson et al 2008, Australia, (398) Pre-post study, 2+	2 days: – Day 1: Knowledge, attitudes, assessment, planning and risk management – Day 2: information on mental disorders, therapies, policies and procedures.	Educational centre staff.	Before, immediately after and 6 months after the training; with a test of skills, knowledge and attitudes.
Keller et al, 2009, USA, (400) Pre-post study, 2+	2 hours: – Recognition of warning signs, providing hope and getting help	Everyone dealing with children (e.g. in teaching, child protection, young offenders or health).	Before, immediately after and 6 and 18 months after training.
Tompkins et al, 2009, USA, (403) SR, 2+ Question, Persuade, and Refer (QPR) programme	2 hours: – Youth suicide prevalence, risk factors for depression and suicide and interventions to be performed.	Secondary school staff.	Before, immediately after and 3 months after the training
Thompson et al, 2010, USA, (401) Pre-post study, 2+	– Students: A manual on wellness, self-evaluation, coping skills and contact and treatment resources – Teachers: Annual meeting, 30 minutes on risk factors, how to detect them and how to respond.	University students and their teachers.	Before and after delivery of the manual, the survey response rate and depression levels were analysed.
Indelicato et al, 2011, USA, (402) Pre-post study, 2+ Question, Persuade, and Refer (QPR) programme	2 hours: – Recognition of warning signs, providing hope and getting help.	Aimed at college students, teachers and staff.	Before the intervention, and 1 and 3 months after.

SR: systematic review

Source: Prepared by the authors.

Other professions (prisons, police, fire-fighters and community volunteers)

Prison workers

One of the most important components in a suicide prevention programme in prisons is to have specific training to train staff well, which should include the following, according to the WHO (323):

Expert
opinion
4

- Risk factors, signs, warning signs and periods of increased risk
- Knowledge of the conditions that facilitate suicidal behaviour in a prison
- Staff attitudes towards suicide and prevention policies in the institution.

Police, fire-fighters

The WHO published a document entitled “Suicide Prevention. A tool for police, fire-fighters and other emergency services” in 2009, as these groups may be early mediators in conflicts with people who have mental health, emotional, substance abuse and/or suicidal behaviour problems. It is necessary, therefore, to develop the training for these professionals in different tasks and to prepare strategies and protocols for crisis management (325).

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opinion
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Institutions must ensure that these professionals are trained to recognize signs and symptoms of mental disorders, identify those at risk of suicide and understand local mental health legislation. In addition, this training should be done through real-life situations in discussion groups led by a mental health professional. The groups should meet regularly to discuss real-life situations and engage in role-playing where participants could implement the different forms of communication depending on the nature of the crisis (325).

Community volunteers

Among the most important groups in suicide prevention are workers or volunteers in community service. The suicide awareness programmes for these groups are typically between 60 and 90 minutes long and show improvement in knowledge and prediction of suicide risk situations. It has also been seen that the volunteers are capable of playing an effective role in the search for professional help (404-407).

Quasi-
experimental
study
2+

The features of these programmes can be seen in Table 42.

Table 42. Training programmes for the prevention of suicidal behaviour in other professions

Author, year, country, reference, evidence level	Training Programme: Type, duration and frequency	Participants	Evaluation
Matthieu et al, 2008, USA(405) Quasi-experimental study 2+	60 minutes – Lectures in groups of 70 people with role-playing of 5-7 minutes.	Non-health caregivers in “veteran” institutions.	Pre and post training through self-administered tests; assessment of knowledge.
Tsai et al, 2010, Taiwan, (404) Quasi-experimental study 2+	90 minutes – Raising awareness of suicide and depression.	76 community volunteers.	---
Lu et al, 2011, Taiwan,(406) Quasi-experimental study 2+	80 hours – Didactic education, including telephone counselling, home visits and crisis intervention.	15 volunteers with a year of experience and 15 volunteers with no experience in social centres.	At 3 months.
Fountoulakis et al, 2011(407) SR, 2+	---	Inclusion of 14 programmes	---

SR: systematic review

Source: Prepared by the authors

Evidence summary

International suicide behaviour prevention programmes	
4	The SUPRE project is a WHO initiative (319) with the aim of progressively reducing mortality due to suicide. A series of documents were prepared aimed at professionals and social groups important for suicide prevention [primary care (15, 74), media (320), teaching (321, 322), prisons (323), general workers (324), suicide survivors (326), fire-fighters, police and emergency services (325)]; no evidence of the effectiveness of this initiative was found.
2+	The WHO prepared a series of recommendations on suicide prevention interventions (327) with the following requirements for them: <ul style="list-style-type: none"> – To be from a public health standpoint with government involvement – To include specific programmes for risk groups – Healthcare professionals to be trained to identify risk groups; therefore, the training must focus on risk and protective factors – Policy assessment programmes to be performed – The media to be involved in suicide prevention.

2+	<p>Subsequently, different systematic reviews of suicide prevention gave the following recommendations (139, 318, 329, 332, 334):</p> <ul style="list-style-type: none"> – Restricting access to lethal means – Improved access to health services and provision of support for people at risk of suicide – Identification, treatment and follow-up of people with depression and other mental disorders – Preparation of community interventions in the young, elderly and ethnic minorities – Better training of health personnel. – Elimination of taboos and stigma about mental illness and suicide, both among health personnel and the general public – Involvement of the media and educational institutions in the prevention of suicidal behaviour.
2+	<p>Mann et al. (332) proposed a prevention model based on interventions with demonstrated effectiveness in patients with mental disorders and other risk factors (training and awareness about suicide, detection of people at high risk, pharmacological and psychotherapeutic treatment, preventive monitoring of suicide attempts, restricting access to lethal means and involvement of the media).</p>
2+	<p>At the European level, the multilevel Nuremberg Alliance Against Depression programme conducted over two years with 4 lines of intervention (training for primary care physicians, awareness training for the media and general public, training of key figures and intervention in risk groups) obtained a significant reduction in rates of attempted and completed suicides compared to the initial rates and a reference region, and this reduction was maintained 1 year after the programme (337, 338).</p>
4	<p>Compared with other European countries, there is little implementation of preventive programmes in Spain. There is no specific national prevention plan and so far only local initiatives have been implemented (342).</p>
Enhancing protective factors and resilience	
2++ 2+ 3	<p>Suicide risk protective factors can be classified into personal (e.g. ability to solve problems, self-esteem, cognitive flexibility and healthy lifestyles; 40, 63, 64, 343-345) and social/environmental (e.g. family and social support, social integration, available support and resources; 18, 19, 40, 43, 44, 63, 344).</p>
3	<p>The protective factors related to resilience that have been most associated with the prevention of suicidal behaviour are (346):</p> <ul style="list-style-type: none"> – Skills and cognitive processes: The attributional style could have a central role in suicidal behaviour; such that, if positive, it could moderate the risk of suicide. There is also some evidence for confidence from the ability to solve problems. – Beliefs and attitudes: A high level of self-reliance is the variable with the most evidence, and could play a preventive role. Other variables that might be involved and mitigate the risk of suicide are perceived social support, attachment and beliefs related to suicide.

1+	At school, a programme based on the enhancement of protective factors through <i>peer leaders</i> improved students' perceptions of support from adults and achieved greater acceptance for asking for help. Also, a significant increase in information about suicide, connection with adults and school involvement were found in peer leaders (349).
Q	A suicide prevention programme for Aboriginal adolescents was conducted in Australia; based on enhancing protective factors and aimed at professionals, families and the adolescents themselves (4 modules of 10 weeks, 1 session per week). At the end of its implementation, a significant increase in the levels of empowerment, self-esteem, resilience, problem-solving skills and wellness were found (350).
3	A retirement adaptation programme employing group CBT resulted in a decrease in levels of depression and psychological distress. A significant increase in variables such as hope, goals, serenity, flexibility and positive attitude to retirement were also observed, with this improvement being maintained at 6 months (351).
3	IPT (16 weekly sessions) aimed at improving social functioning and skills in people over 60 years with a high risk of suicide, obtained a significant reduction in levels of depressive symptoms, suicidal ideation and thoughts of death, compared with the baseline level (352).
Restricting access to lethal means	
2++	There is evidence of a decrease in suicidal behaviour when access to lethal means (e.g. toxic substances and firearms) is restricted; although it must be noted that the restriction on the type of method depends on the country (139, 318, 329, 332, 334).
The media and suicide	
<i>The media</i>	
2+ 3	There is consistent evidence of a relationship between the inadequate treatment of information about suicide in the media and an increase in suicide. News that glamorises or dramatises suicide or involves famous people is especially related to imitative behaviour. The evidence is not conclusive regarding the effect of implementing recommendation guidelines in the media (61).
4	The WHO published a document which included a series of recommendations for the media on how to approach news about suicides (62).
3	Different countries (Australia, New Zealand, USA, Canada, UK, Hong Kong and Sri Lanka, among others) have developed recommendations for the media based on the WHO guidelines. The most important are (355): <ul style="list-style-type: none"> – Not sensationalising news about suicides – Avoiding specific details about its features and circumstances – Giving information accurately, responsibly and ethically – Taking the opportunity to educate the public – Providing information on available aid resources – Taking into account families and friends after a suicide at all times.
3	Other factors which have also been associated with increased suicidal behaviour are repeating the same news about suicide and referring to myths about it (354).

2+	In Austria, after the implementation of measures aimed at the media, there was a significant reduction in the annual rate of suicides nationally, and especially in regions where the press cooperated more actively. An improvement in the quality of information provided was also noticed (361).
2+	In Hong Kong, after the implementation of the WHO recommendations for the media, there was a decrease in suicide rates and fewer images and headlines were published about suicides (362).
Q	Journalists acknowledge the need for their involvement in suicide prevention and its role in health promotion. One of the main barriers to the adoption of the recommendations of the guidelines on the treatment of information about suicide was scepticism about the contagion effect (363).
<i>The Internet</i>	
2+	Pathological use of the Internet has been associated with the presence of suicidal ideation and behaviour (364).
2+	It has been found that much of the Internet information about suicide could be classified as pro-suicide and young people are particularly vulnerable to this kind of information (364-367).
3	It has been shown that most information on suicide for young people between 14 and 24 years comes in most cases from traditional sources (family, friends, or press), however, that from forums and social networks is becoming more frequent (368).
4	Internet suicide pacts are a phenomenon that is becoming more and more important. Variations on this phenomenon can also be found on the net, such as narrated suicides and suicide simulation (364).
4	The Internet can be a good tool for the promotion of mental health and suicide prevention. Some of its advantages are (364): <ul style="list-style-type: none"> – Facilitates social interaction – Provides quick easy access and dissemination of information – Has proven to be a good way to provide information about health-related issues, so it might be a good platform for education – You can provide support through the appropriate use of social networks and chat rooms.
3	A study was conducted of university students who participated in online screening for depression and suicide risk, with a subsequent personal interview. Some maintained contact with the therapist online, and they were compared with those who did not. It was found that students who maintained contact with the therapist via the Internet were more likely to begin treatment (370).
3	Another study analysed the proportion of suicide-related contacts on a telephone helpline, a chat room and an online self-help group; communication with the latter was not instantaneous, as it was with the phone and chat conversations. Threats of suicide were more common in this online support group than with the telephone line and chat room (371).

4	<p>Some measures that have been proposed to try to regulate the content of information on Internet suicides are (365):</p> <ul style="list-style-type: none"> – The use of filtering software by the family to prevent access to certain forums or blogs – Trying to have pages with useful information for patients (aimed at prevention or to provide support) appear in a priority location when performing a keyword search – Regulating the control of Internet content (through legislation, involvement of organisations or service providers).
Training programmes for the prevention of suicidal behaviour	
<i>In healthcare</i>	
3	Training programmes for suicide prevention aimed at health professionals must include risk factors, assessment, treatment and management of suicidal behaviour, as well as the stigma and discrimination generally associated with it (372, 373).
2+	These training programmes can be done through lectures, role-playing and discussion of cases (372, 380, 382, 383, 385, 389-392).
2+	The training programmes are associated with an increase in confidence of health personnel and an improvement in their attitudes and skills in the detection and management of depression, although there is no conclusive evidence about its effect on suicidal behaviour (164, 372, 374-376).
2+	It has not been shown that training programmes aimed at primary care reduce suicide rates, although they do improve the knowledge acquired and lead to changes in the attitude and confidence of the participants in programmes which is maintained for 6 months (372, 373, 380, 382, 383).
2+	Studies on training mental health professionals in the prevention of suicidal behaviour show positive results in the acquisition of knowledge, changes in attitude (373, 385) and in the ability to manage these patients, although their influence on rates of suicide has not been evaluated (385).
2+	Training programmes on suicide prevention in emergency departments increase professional knowledge and the perception of self-reliance when managing patients at risk of suicide (373, 375, 386-388).
2+	Programmes developed specifically for nurses and resident physicians provide increased confidence and competence and improved attitudes in the management of patients with suicidal behaviour (389-392); although the improvement was temporary for resident physicians, raising the necessity of having periodic booster programmes (392).
4	For the implementation of preventive educational programmes in healthcare, the document “Recommendations for prevention and management of suicidal behaviour in Spain” (342) proposed the following, among others: knowing the needs of the area, improving the ability to identify people at risk of suicide, providing diagnostic support tools and performing internal and external evaluation of the programme.

2+	<p>The following are required to implement a training programme for the prevention of suicidal behaviour (375):</p> <ul style="list-style-type: none"> – Having a leader or support coordinator in the organisation – Promoting increased demand for training – Having adequate financial support for its implementation.
<i>Non-health personnel</i>	
2+	<p>Programmes developed for the prevention of suicidal behaviour in schools, universities and youth centres significantly improve the level of confidence, the perception of skills and knowledge about suicide. This is maintained 3-6 months after completion, and for up to 18 months, with booster sessions of the initial training (398-403).</p>
4	<p>For the implementation of a suicide behaviour prevention programme in an educational institution, it is advisable to have the support of the director, offer it at the start of the course, be of short duration and be aimed at all staff in the institution (399).</p>
4	<p>In prisons, the suicide prevention programmes are intended primarily to train personnel for the identification and management of prisoners at risk of suicide (323).</p>
4	<p>Training programmes for police officers, fire-fighters and emergency services can be implemented through case studies, real situations and trying to train the professionals in crisis management (325).</p>
2+	<p>Training and awareness programmes about suicide for key figures (gatekeepers) or volunteers can be done using didactic material with home visits and role-playing. The results show an improvement in knowledge and management of a crisis, especially in seeking professional help (404-406).</p>

Recommendations

General programmes for the prevention of suicidal behaviour	
C	<p>The health authorities are recommended to implement the following specific lines of action for the prevention of suicidal behaviour:</p> <ul style="list-style-type: none"> – Development of preventive programmes in populations at risk – Training of health professionals in the detection of suicide risk and identification of risk and protective factors – Education of the general population and media – Improving procedures for identification, treatment and monitoring of people at risk of suicide – Improving access to health services and providing the right treatment to people with suicidal behaviour – Removing the taboo and stigma attached to mental illness and suicide in both health workers and the general public – Promoting research on suicide prevention.

Enhancing protective factors and resilience	
✓	The preparation and implementation of suicide prevention programmes based on enhancing protective factors and factors associated with resilience is recommended.
Restricting access to lethal means	
B	<p>It is recommended to reduce the availability of or limit access to lethal means of suicide, particularly those used most in a particular country:</p> <ul style="list-style-type: none"> – Restriction on the sale of psychotropic drugs – Reducing the size of drug packs in general. – Using less toxic antidepressants – Reducing the emissions of carbon monoxide from vehicles – Lowering the toxicity of domestic gas – Installation of barriers in high places – Restriction on the possession and control of firearms – Control of pesticides.
The media and suicide	
D	<p>The media are recommended to follow the WHO guidelines when reporting news about suicides, among which are:</p> <ul style="list-style-type: none"> – Not sensationalising news about suicides – Avoiding specific details about its features or circumstances – Providing information accurately, responsibly and ethically – Taking the opportunity to educate the public – Providing information on available aid resources – Taking into account the impact that the information can have on the families and friends after a suicide at all times.
✓	Measures at a national or regional level aimed at promoting the implementation of the WHO and similar guidelines to promote the proper treatment of suicide in the media are recommended.
D	<p>The implementation of measures to promote the Internet as an instrument to encourage mental health and suicide prevention is recommended. Examples of possible measures are:</p> <ul style="list-style-type: none"> – Trying to have pages with useful information for patients - aimed at suicide prevention or offering support - appearing in a priority location when performing a search with key terms – Regulating the control of Internet content by legislation, the involvement of organisations or service providers – Using filtering software to prevent access to certain forums or blogs.

Training programmes for the prevention of suicidal behaviour	
<i>Health personnel</i>	
C	In general, it is recommended that programmes for training of health personnel on suicidal behaviour include information on risk and protection factors, assessment and crisis intervention strategies. The format may be on-site, online or mixed, and based on lectures, case discussions and role-playing.
C	It is recommended that training programmes include booster sessions on a regular basis (at least every 2 years).
✓	It is recommended to evaluate training programmes after their implementation, particularly their influence on clinical practice.
C	Training programmes in primary care are recommended to include the detection and treatment of depression, as well as specific content about suicide.
C	It is recommended that emergency services training programmes address the general aspects of suicide and enhance the development of skills in the clinical interview for the detection of comorbid psychiatric disorders, as well as suicide risk factors and groups.
C	Training programmes for mental health services are recommended to include the acquisition of skills in the management and prevention of suicidal behaviour, as well as general aspects of suicide.
<i>Non-health personnel</i>	
C	Training programmes for non-medical personnel (e.g. teachers, educators, fire-fighters or police) are recommended to primarily address risk factors for suicidal behaviour, preventive aspects, crisis intervention and information about seeking professional help.

9. Screening for suicide risk

Key questions:

- Could suicide risk screening detect future suicidal behaviour and reduce its mortality?
Are suicide risk screening tools effective?
- Could asking about suicide increase suicidal behaviour in the population studied?

It is well known that primary care personnel play an important role in the identification and management of patients with suicidal ideation or behaviour (128), as it is estimated that around 23% of patients attending a primary care centre had suicidal ideation within the previous month (408). Contact with a primary care physician before an attempted or completed suicide is also frequent, with it being estimated that 75% had done so within the year beforehand and 45% within a month before (129, 130).

However, despite the prevalence of suicidal ideation and behaviour and knowledge of risk factors, about 83% of people with suicidal behaviour have not been previously identified by their doctor, even when evaluated some months before the attempt (409). This situation has led to raise the question of whether a screening test (to be conducted in primary care, in emergency departments or in the mental health field) could reliably detect the suicide risk of patients.

9.1. Fundamentals of screening

Screening is a process whereby those people who have a high risk of a disease or clinical condition are detected. Screening, however, is not a definitive diagnostic assessment, such that individuals who test positive must undergo diagnostic tests to confirm the disease or condition to receive timely treatment (410).

Typically, screening is recommended when: the disease or clinical condition is associated with high morbidity or mortality; there is an effective treatment; its prevalence is not too low and early detection is considered critical (411). The risk of suicide meets these requirements, if it is assumed that depression treatment - present in a high percentage of patients with suicidal behaviour - is effective.

There are two types of screening methods: Universal, when the test is used in the entire population, regardless of the presence of risk factors or symptoms; and selective, which applies only in those patients with certain risk factors or a series of specific signs or symptoms.

Screening instruments should be brief, easy to use and have acceptable values for sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV). For the risk of suicide, it is important to detect all positive cases, with a high number of false positives being less important; i.e. sensitivity is more important than specificity. However, the relatively low frequency of suicidal behaviour makes it difficult to find a precise screening test. For example, suppose the frequency of a condition is 10 per 10,000 people, and a test for it had a sensitivity of 90% and specificity of 80%. The number of true positives would be 9, the number of false negatives 1 and false positives 1998. In this example, the PPV of the test, i.e. the probability of suicidal behaviour being present if you get a positive result would be only 0.45%. The high number of false positives would be a major burden on the healthcare system, due to the high cost of subsequent evaluations to check whether this 'positive' result was accurate or not.

9.2. Screening for suicide risk in adults

There are few screening studies for suicide risk. Gaynes et al. (410) conducted a systematic review in 2004 of any suicide risk screening in the primary care setting to decrease morbidity and mortality in patients whose risk had not been previously identified. The authors found no such studies; there is also little information on the use of screening tests in this context.

SR of
diagnostic
test studies
2+

Based on scientific evidence, the US *Preventive Services Task Force* (USPSTF) concluded that there was insufficient evidence, either for or against, recommending screening for suicide risk in the general population. More specifically, the USPSTF found no evidence that this screening would reduce suicidal behaviour or mortality, with there being only limited evidence on the accuracy of screening tools to identify suicide risk in the primary care setting (412).

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opinion
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Subsequently, a study was conducted to evaluate a screening programme for suicidal ideation and behaviour and severe mental disorders in 272 patients from an urban district in Hungary. The prevalence of patients with suicide attempts was 2.9%, of whom 9% had suicidal thoughts, gestures or attempts in the previous month. It was also found that 60% of patients with suicidal ideation or behaviour had a prior depressive episode, compared with 6.8% of those non-suicidal (413).

Observational
study
3

Suicide risk screening tools in adults

Gaynes et al. (410) identified a study that evaluated a test of 62 items that could be used in primary care, the *Symptom-Driven Diagnostic System for Primary Care*, in which the risk of suicide during the previous month was assessed using three components (408). The results were collected by a nurse and compared with a structured interview, considered as the “gold standard”. The item “thoughts of death” had a sensitivity of 100%, a specificity of 81% and a PPV of 5.9%. The item “desire to be dead” had a sensitivity of 92%, a specificity of 93% and a PPV of 14%. Finally, the item “feeling suicidal” had a sensitivity of 83%, a specificity of 98% and a PPV of 30%. Only major depression and drug abuse or dependence is independently associated with suicidal ideation.

SR of
diagnostic
test studies
2+

The screening for suicidal ideation and behaviour conducted by Voros et al. (413) used the questionnaire “Primary Care Evaluation of Mental Disorders” (PrimeMD) (414) to assess serious mental disorders and six questions from the “Mini International Neuropsychiatric Interview Plus” (415) to assess suicide ideation, gestures and attempts. The PrimeMD questionnaire catalogued 6.5% of participants with depressive disorder and 4.7% with anxiety disorder. A multivariate analysis confirmed that patients with suicidal behaviour took significantly more antidepressants and anxiolytics, had more anxious and depressive episodes, more previous suicide attempts, a history of psychiatric treatment and visited their primary care doctor less often. For the authors, the PrimeMD questionnaire supplemented with questions on suicidal behaviour was an effective method for primary care physicians when assessing suicide risk and recognising common mental disorders.

Observational
study
3

9.3. Screening for suicide risk in childhood and adolescence

In response to the rising rates of teenager suicide in the past 20 years in the US, various prevention programmes have been conducted in schools focusing on skills training or interventions after a suicide, and have been introduced into the educational content. However, few programmes have been evaluated scientifically and some of them have been shown to have a limited impact (416).

For some authors, suicide risk screening is an important challenge for several reasons (417):

- The wide variation in psychometric properties of existing tests, with a sensitivity ranging between 48% and 100%
- The excessive brevity of many of the instruments
- Changing the cut-off point to improve sensitivity at the expense of specificity
- Variability of the criteria for identifying youths at risk
- Variation of the validity criteria that limits comparisons between instruments
- The need for an adequate structure to keep track of all those patients who test positive at screening.

Because of their frequent association, screening for depression is usually the focus of suicide prevention in adolescents in primary care. Thus, despite the lack of studies evaluating the results of a screening programme for depression in young people (418), a screening process for adolescents at high risk of depression has been indicated when they visit their primary care doctor (419). Meanwhile, based on adult studies, the USPSTF also suggested screening adolescents of 12 to 18 years for major depression, provided the diagnosis, treatment and monitoring are appropriate. Although, it found that the evidence was insufficient to recommend it for children between 7 and 11 years of age (420).

Suicide risk screening programmes and studies in educational institutions

The *TeenScreen Programme* (421) is a screening programme aimed at identifying mental health problems like depression or suicide risk in all young people before they leave high school. Participants complete one of the following self-administered surveys: *Columbia Health Screen (CHS)*, *Diagnostic Predictive Scales (DPS8)* or *Columbia Depression Scale (CDS)*. Young people with a positive score on the screening tool are interviewed with the *Diagnostic Interview Schedule for Children* and by a mental health professional who determines if further evaluation is necessary (422).

Expert
opinion 4

Screening for suicide risk in schools has been developed mainly in the US and has often been described as a tool, programme or both, although its implementation remains controversial. In a systematic review in 2006 (417), Pena and Caine list the different suicide risk screening programmes, studies and tools hitherto existing. The authors concluded that the evidence for their effectiveness is not sufficient and that further research is needed to determine this.

SR of
different
study types
2+

Subsequent studies also found no data on the possible impact of screening on future suicidal behaviour (423-425). Table 43 summarises the studies included in the Pena and Caine review (417) and 2 more published later.

Table 43. Studies of suicide risk screening in educational institutions

Author, year, reference	Sample	Methods	Results
Shaffer et al., 1996 (426)	2004 adolescents in 8 secondary schools in metropolitan New York.	Columbia Teen Screen. Administered a second time in the follow-up	The problems of high-risk students were unknown to others.
Aseltine, 2003 (427)	92 US schools in the Signs of Suicide (SOS) programme.	Surveys conducted 2000-01. Information obtained individually by programme coordinator.	About 60% improved in seeking help (6.8/students/month the previous year to 10.6/students/month 30 days after the programme). No adverse effects.
Aseltine and DeMartino, 2004 (428)	2100 students from 5 US secondary schools.	Random allocation. Intervention group (prevention programmes within the educational content and Columbia Depression Scale). 3 months follow-up.	Intervention group: fewer suicide attempts in the 3 following months than in the control group. No improvement in help-seeking behaviour.
Gutierrez et al. 2004 (429)	390 grade 9-12 students in urban secondary schools, midwest USA	Suicidal Ideation Questionnaire (SIQ-JR). Assessment by the school counselling staff.	4 levels of risk: 3.1% in crisis, 4.4% significant concern, 3.8% apparent need and 88.7% no indicators. 4 levels of intervention: intensive, intermediate, monitoring and no intervention.
Gould, 2005 (430)	2342 adolescents from 6 states in New York (2002-2004). Secondary school students (13-19 years) and adolescents at high risk of suicide.	Random allocation. Experimental group included the suicide question from the Beck Depression Inventory, the Suicidal ideation Questionnaire and questions about previous suicide attempts. Control group did not include those questions.	No differences in levels of mood disorder or depressive symptoms. Suicidal ideation (4.7% vs 3.9% in control group P=0.49). High-risk students in the experimental group had less suicidal ideation or behaviour and less emotional distress disorders or depressive symptoms than high-risk students in the control group
Hallfors et al., 2006 (431)	1323 grade 9-11 students from 10 secondary schools in 2 US urban districts.	Suicide risk Screen (SRS) School staff monitor students with positive screening.	29% positive (girls' rate twice that of boys). High number of false positives, so a third of students were not followed up.
Nemeroff et al. 2008 (424)	530 students in US schools and institutes	Diagnostic Interview Schedule for Children Version IV (NIMH DISC-IV) Structured interview and subsequent diagnosis according to DSM-IV.	72% of students at risk of mental disorder (75% had never been in psychiatric treatment). 28% of test positives showed risk of suicide.
Scott et al., 2009 (425)	1729 students from 7 high schools in the metropolitan area of New York.	Columbia Suicide Screen (CSS) and Diagnostic Interview Schedule for Children (DISC 2.3) School professionals and personnel blind to the result evaluated emotional outcomes.	489 students (28.3%) at risk of suicide (screening) and 460 (26.6%) by professionals. Identification of mental problems: 34% with screening, 13% by professionals, 35% by both and 18% by none.

Source: Prepared by authors from Pena and Caine review (417).

Adolescent suicide risk screening in primary care

Primary care physicians are in many cases, the main references in adolescent mental health and over 70% visit their doctor at least once a year (423).

In 2010, a study was done to assess whether screening for suicide risk in primary care increased the detection rate in adolescents (432). Information from 2 standardised questions about thoughts of death and suicidal ideation, given by 3 previously trained physicians participating in the screening, were compared with the previous year's clinical history results. There were 1561 young people between 12 and 18 years old screened in the pre-intervention phase and 13 were identified as at high risk of suicide. In the post-intervention phase, 1415 young people were screened and 51 were found. Searching for the risk of suicide increased by 219%, detection of persons at risk by 392% and referral to mental health increased in proportion to the increase in identification. For the author, standardised screening helped identify young people at risk of suicide who needed referral to a specialist service

Quasi-
experimental
study 2+

Adolescent suicide risk screening in the emergency department

Another important area for suicide risk screening in children and adolescents is the emergency services, which sometimes are their only contact with the health system. Furthermore, the undetected risk of suicide in the emergency services is associated with increased morbidity and mortality and an increase in the use of the health service.

However, data from a survey show that doctors at a paediatric emergency department admitted screening for mental disorders in only 10% of patients, usually after submitting some type of complaint (433). This could be due to lack of time, appropriate screening tools or agreed protocols. When screening is performed, the 3 conditions most frequently encountered were depression (83%), suicidality (76%) and substance abuse (68%). In conclusion, the authors highlighted the interest that the emergency services have for appropriate tools to screen for patients at risk of suicide.

Qualitative
study
Q

Asarnow et al. (434) evaluated the risk of suicide in children and adolescents between 10 and 18 years with suicidal ideation and one or more previous attempts. The study was conducted in 2 different emergency services and an item from the "Youth Risk Behaviour Survey" questionnaire (YRBS) was used: "In the last 12 months, how many times have you tried to kill yourself?" (435). The presence of stress factors, clinical symptoms and health care utilisation predicted a suicide risk continuum from ideation to repeated attempts in both emergency services. Specific factors associated with an increased risk of suicide were the break-up of couples, having had contact or a relationship with a person who had attempted or completed suicide, as well as the pregnancy of the person or of a partner (434).

Diagnostic
test study
2+

King et al. (436) analysed the validity and usefulness of screening for suicide risk in 298 adolescents treated in an emergency department. The risk of suicide was defined as: (a) Score ≥ 31 on the *Suicidal Ideation Questionnaire-Junior* (IQJR) or a suicide attempt in the previous 3 months, or (b) Alcohol abuse and depression [≥ 3 points on the *Alcohol Use Disorders Identification Test-3* (AUDIT-3), ≥ 76 points on the *Reynolds Adolescent Depression Scale-2* (RADS-2)]. To examine concurrent validity, the Beck Hopelessness Scale (BHS) and the *Problem Oriented Screening Instrument for Teenagers* (POSIT) were used. The proportion of adolescents identified as at high risk of suicide was 16% and, of these, 98% had serious thoughts of suicide or a recent attempt and 27% had alcohol abuse and depression. The addition of these criteria did not increase case identification. Of the patients identified as high risk of suicide, 19% had gone to the emergency department for non-psychiatric causes, 35.4% for psychological or somatic complaints without suicidal ideation or behaviour and one-third received no treatment for mental disorder or drug addiction.

Diagnostic
test study
2+

Finally, Fein et al. (437) tested a computerised screening system (*the web-based Behavioural Health Screening Emergency Department, BHS-ED*) to identify psychiatric problems in hospital emergency departments. The screening was completed by 857 adolescents aged from 14 to 18 years. The authors noted that the use of this tool significantly increased the identification of adolescents with psychiatric problems (4.2% vs 2.5%), and its incorporation increased assessments by social workers or psychiatrists (2.5% vs 1.7%). There were 95 patients (11.1%) who reported suicidal ideation in the previous year and 31 (3.6%) in the previous 2 weeks. Of these, 15 had made plans for suicide or had made a suicide attempt.

Diagnostic
test study
2+

Adolescent suicide risk screening tools

A systematic review by Pena and Caine (417) found 7 psychometrically validated screening tools to identify suicide risk in adolescents usually used in schools: *Columbia Suicide Screen* (CSS), *Diagnostic Predictive Scales* (DPS), *Suicidal Ideation Questionnaire* (SIQ), *Suicidal Ideation Questionnaire JR* (SIQJR), *Risk of Suicide Questionnaire* (RSQ), *Suicide Risk Screen* (SRS) and *the Suicide Probability Scale* (SPS) (Table 44).

SR of
different
types of
studies 2+

The most commonly used instruments for detecting the risk of suicide are SRS (438), SIQ (439) and CSS (440). The latter is the primary screening test used in US schools and has been shown to detect students at risk of suicide with greater reliability than school personnel (425). To improve its psychometric properties, Scott et al. (441) constructed 2 algorithms, one of a low threshold which classifies 35% of the students as positive (96% sensitivity and 61% specificity), and another with a high threshold which reduces the identification rate to 24% (92% sensitivity and 78% specificity).

In secondary schools, the CSS, the SIQ and SIQ-JR have a positive predictive value between 0.16 and 0.33, which results in a significant number of false positives. The RSQ and DPS, generally used in clinical settings, tend to have a high PPV (0.53 - 0.55), and so may be recommended for use in screening programmes in schools (442). The sensitivity of the 7 instruments ranges between 1.00 and 0.48, which means that up to 52% of young people at risk of suicide will be negative with these instruments (417).

The RSQ is also used to detect suicidal behaviour in children and adolescents who go to an emergency department (120). There is a Spanish version, validated on Mexican children and adolescents, which had a moderate internal consistency and moderate-high correlation with constructs linked with suicide risk, such as hopelessness (175). This questionnaire was also used by nurses to detect suicide risk for adults and adolescents who went to an emergency department (145).

9.4. Screening for suicide risk in older people

It is known that older people have an increased risk of suicide compared to other age groups (446) and psychological autopsy studies have shown that the main cause of suicide is depression (447).

Table 44. Suicide prevention screening tools in adolescents

Name, author, year, reference	Sample	No of items, Validation criteria	Psychometric values	
Columbia SuicideScreen (CSS) Shaffer et al.2004 (440)	2538 students from 7 schools in the New York metropolitan area (67% completed the screening).	Self-administered questionnaire: 11 items encompassed within a general health questionnaire of 32 items. Mood disorder or substance abuse as DISC plus suicidal ideation or previous attempt.	Se: 75% Sp: 83% PPV: 16% NPV: 99%	
Diagnostic Predictive Scales (DPS) Lucas et al.2001 (443)	Ages 9-18 years in many US homes and clinics	54 main items (84 in total) DISC (Diagnostic Interview Schedule for Children 2.3)	Se: 67-100% Sp: 49-96% PPV: 6-74%	
Suicidal Ideation Questionnaire (SIQ) Reynolds, 1991 (439)	Ages between 14-18 years, 121 high schools in a small mid-west US town	30 items Cut-off point of 14 in Suicidal Behaviour Interview	PC 30 Se: 100% Sp: 49% PPV: 25%	PC 40 Se: 83% Sp: 70% PPV: 33%
Suicidal Ideation Questionnaire (SIQ-JR) Keane et al.1996 (444)	163 secondary schools.	15 items Documentation of suicide attempts occurring within 4 months of school worker and child psychologist administering the SIQJR.	Se: 80% Sp: 86% PPV: 27%	
The risk of Suicide Questionnaire (RSQ) Horowitz et al., 2001 (120)	149 children and adolescents treated for psychiatric reasons in urban teaching hospital paediatric emergency.	4 items SIQ of 41 or more for adolescents (grade 10 or higher). SIQ-JR of 31 or less for adolescents (below grade 10) There is a Spanish version (validated in Mexico)	Se: 98% Sp: 37% PPV: 55% VPN: 97%	
Suicide Risk Screen (SRS) Thompson and Eggert, 1999 (438)	581 young people from 7 secondary schools who had abandoned studies	20 items SIQ-JR of 23-31 Direct Suicide Risk (DSR) using Measure of Adolescent Potential for Suicide (MAPS) Overall Clinical Risk Assessment (CRA).	Se: 87-100% Sp: 54-100% PPV: 63.1 - 69%	
Suicide Probability Scale (SPS) Larzelere et al., 1996 (445)	855 youngsters in a treatment residential centre.	36 items Suicide attempts as reflected in daily reports of centre supervisors from 1988-1991.	Se: 48.3% Sp: 80.3% PPV: 8.1%	

NPV: negative predictive value; PPV: positive predictive value; Se: sensitivity; Sp: specificity. Source: Compiled by authors from Pena and Caine (417)

Oyama et al. (448) conducted a study to quantify the effect of a community intervention on risk of suicide in patients older than 60 years. They included 5 studies, all performed in Japan, which used universal prevention programmes including community depression screening, monitoring and health education. The screening was conducted in 2 phases, using a self-administered questionnaire and an assessment by nurses or psychiatrists. Two groups were formed according to the monitoring: the first by a psychiatrist and the second by a primary care physician. In the first case, the meta-analysis included 16,110 people before the implementation of the programme and 21,170 after it, which reduced the number of suicides from 51 to 19 (relative risk of 0.30 for men and 0.33 for women). For the second group (follow-up by a primary care physician), the meta-analysis included 23,340 people before the implementation of the programme and 27,865 after, which reduced the number of suicides from 71 to 44, with a relative risk of 0.73 for men and 0.36 for women. According to this research, the implementation of community screening programmes for depression, monitoring and health education is associated with a reduced risk of suicide in older people, and more so when the monitoring is carried out by a psychiatrist. The benefits of the intervention were seen especially in males; this could be because they were more impulsive and because of the greater difficulty of treatment in primary care. Because this study was implemented and evaluated in Japan only, it is difficult to extrapolate the results to different environments, due to cultural, organisational and structural differences with other countries.

SR of quasi-experimental studies
2++

Subsequently, the same authors evaluated the effectiveness of a community screening programme for depression, performed in 6 rural municipalities in northern Japan, for the prevention of suicide (449). After an initial assessment, the screening programme was conducted in 2 stages. The first used the Zung Self-rating Depression Scale (SDS), the Geriatric Depression Scale-5 items (GDS-5) or the Depression and Suicide Screen (DSS). Of the 2,552 participants, 486 had a positive test. In the second stage, 420 patients with a positive test were evaluated by nurses or social workers through the WHO Composite International Diagnostic Interview (WHOCIDI). If it was considered that the patients had a depressive episode, they were referred either to a psychiatrist or were followed up by these same professionals. In municipalities where the programme was implemented, the risk of suicide was reduced in both men and women (61% and 51%, respectively, although only significantly in the first), while in the reference municipalities no change was seen.

Quasi-experimental study
2++

Suicide risk screening tools in older people

Heisel et al. (450) conducted an investigation to evaluate the psychometric properties of 2 brief scales: the *15-item Geriatric Depression Scale (GDS)* and the *5-item GDS subscale (GDSSI)* to be used as screening tools in the elderly in the primary care setting. The authors administered the scales to 704 persons of both sexes, with a mean age of 75 years. The presence of suicidal ideation was also evaluated with items from the *Hamilton Rating Scale for Depression (HRDS)* and a DSM-IV (SCID) structured interview. Patients who expressed suicidal ideation (n = 69) had higher scores on the GDS and the GDSSI than those without suicidal ideation (n = 557). Using a cut-off of 4 in the GDS, it had a sensitivity of 75%, specificity of 82%, PPV of 34% and a NPV of 96%. The authors' conclusions were that both the GDS and GDSSI were effective for identifying patients with suicidal ideation, although its applicability in clinical practice needs to be studied.

Diagnostic
test study
2+

9.5. Suicide risk screening in prisons

Prisoners have a higher risk of suicide than the general population, and this risk is not only related to the time spent in prison, but also with factors present throughout their lives (451).

Recommendations for the prevention of suicide in prisons

The WHO published the guide “Preventing Suicide. A Resource for Prison Officers” in 2000 as part of a global initiative to prevent suicide. Subsequently, Konrad et al. (451) conducted an update of the guide which is summarised below:

Expert
opinion
4

- **Screening on admission:** This must be done as soon as they enter the prison, and later if circumstances or conditions warrant. Whenever possible, the screening should be performed by skilled health personnel or, failing that, trained prison officers. The screening questionnaires should enquire about static (demographic) and dynamic (personal and situational) variables. The level of suicide risk identified must be noted in the record, communicated to prison staff and the individual evaluated by a mental health professional a short period of time later.
- **Observation after admission:** To be effective, the suicide prevention should take the form of regular monitoring. Prison officials must identify and be alert to suicide risk indicators, such as emotional instability, insomnia, changes of mood or in eating habits, feelings of hopelessness, as well as potential conflicts with the family or with other prisoners.
- **Follow-up:** Guidelines for the monitoring, supervision and intervention of mental health professionals in those patients identified at high risk of suicide must be established.

Suicide risk assessment scales in the prison population

Perry et al. (452) conducted a systematic review to analyse the work assessing the validity and reliability of screening scales for measuring the suicide risk in adults in prison. The authors compared four scales (Table 45) and, as indicated, most of the work contributed little information on compliance with the *Standards for the Reporting of Diagnostic Accuracy* (STARD). Also, methodological limitations and a lack of heterogeneity in the samples were observed in some of them. The authors concluded that none of the scales measures the predictive validity of future suicides or suicidal behaviour, thus making it difficult to establish the best scale for screening in such heterogeneous samples.

SR of
diagnostic
test studies
2+

Another scale not included in the table above is the Massachusetts Youth Screening Instrument Version 2 (MAYSI-2). It consists of 52 items and 7 scales and was designed to identify the risk of serious mental, emotional and behavioural disorders in young inmates. Stathis et al. (453) used it in a sample of 402 young Australians (298 men and 104 women, of whom 212 were indigenous). Mental health problems were detected in 75% of men and in 90% of women. In addition, 81% of the indigenous population and 75% of the non-indigenous scored above the cut-off point in at least one scale. Among men, 59% had alcohol and drug consumption problems, 28% irritability and another 28% somatic complaints. Among women, 67% had alcohol and drug consumption problems, 45% had somatic complaints, 42% depression and/or anxiety and 30% suicidal ideation.

Diagnostic
test study
2+

Table 45. Suicide prevention screening tools in prison

Name	Features	No of items	Psychometric values
Suicide Concerns for Offenders in Prison Environment (SCOPE)	Self-administered scale Social support evaluated (12 items: family, friends, prison personnel and use of problem-solving strategies) and optimism (15 items: depression symptoms, future hopelessness, suicide behaviour and attempts).	27	Se: 81% Sp: 71% NPV: 55%
Suicide Checklist (SCL)	Externally applied scale 11 items evaluated: depression and suicidal ideation and 6 previous history of suicidal behaviour.	17	Se: 70% Sp: 21% NPV: 24%
Suicide Probability Scale	Self-administered scale Evaluates hopelessness, suicidal ideation, feelings of worthlessness and hostility.	36	Se: 53% Sp: 78% NPV: 78%
Suicide Potential Scale	Self-administered Scale Evaluates history of previous suicides, recent psychiatric or psychological interventions, recent loss of family members or partners, current problems, influence of alcohol and/or drugs, signs of depression and the presence of a suicide plan.	9	Se: 86% Sp: 80%

NPV: negative predictive value; PPV: positive predictive value; Se: sensitivity; Sp: specificity.

Source: Compiled by authors from Perry et al. (452)

9.6. Possible adverse effects of screening

<p>Gould et al. (430) conducted a randomised controlled trial to investigate whether simply asking students about behaviour or suicidal ideation in a screening programme increased emotional distress or led to suicidal ideation (Table 43). Despite the limitations of the study (only 64% of school students participated, who were mostly Caucasian from a suburban population, of low socioeconomic status, and so cannot therefore be extrapolated to other contexts), the authors found no evidence of an iatrogenic effect for suicide screening programmes.</p>	<p>RCT 1+</p>
<p>A review of the literature to assess the health impact of routine screening for major depressive disorders in children and adolescents (aged 7-18 years) found no studies examining the possible harm of screening programmes (418).</p>	<p>SR of different types of studies 2+, 3</p>
<p>Finally, a study of young people from 12-20 years using the <i>Coping with Difficult emotions</i> questionnaire found no effect of the suicidal ideation items on mood (454).</p>	<p>Diagnostic test study 2+</p>

Evidence summary

Suicide risk screening in adults	
2+	Studies addressing suicide risk screening in adults are rare and none of them answer the question of whether its conduct in the field of primary care reduces morbidity and mortality in patients whose risk had not been previously identified (410).
3	A suicidal ideation and behaviour screening programme conducted in primary care showed a prevalence of suicide attempts of 2.9% of whom 9% had had suicidal thoughts, gestures or attempts in the previous month. In addition, 60% of patients with suicidal ideation or behaviour had had a previous depressive episode, compared with 6.8% of the non-suicide group (413).
2+	Among the suicide risk screening tools in adults, the <i>Symptom Driven Diagnostic System for Primary Care</i> has shown high sensitivity and specificity and is independently associated with suicidal ideation, major depression and drug abuse or dependence (410).
2+	The <i>Primary Care Evaluation of Mental Disorders</i> questionnaire, supplemented with questions about suicidal behaviour, is also a good method for primary care physicians when assessing suicide risk and recognising common mental disorders (413).
Suicide risk screening in children and adolescents	
2+	Evidence for tools or suicide screening programmes in schools shows inconclusive results, as their effectiveness or potential impact on future suicidal behaviour was not determined (417).

4	One of these screening programmes is the TeenScreen Programme that aims to early and voluntarily identify mental disorders such as depression or risk of suicide in young people before they leave secondary school (109).
2+	Standardised suicide risk screening in adolescents in the primary care setting can identify youths at risk of suicide who need a referral to a specialist service (432).
Q	Different factors, such as lack of time, detection tools and agreed protocols mean that screening for suicide risk is rarely performed in the emergency services (433).
2+	In children and adolescents, the presence of stress factors, clinical symptoms and health care utilisation predicted a suicide risk continuum from ideation to repeated attempts. Some specific stress factors associated with an increased risk of suicide were the break-up of couples, exposure to cases of attempted or completed suicide and unwanted pregnancy (434).
2+	In the emergency department, screening for suicide risk in adolescents has the potential to identify patients at a high risk of suicide with the presence of depression, alcohol use and impulsivity who attend for other reasons (436).
2+	It has been observed that the use of screening systems in the emergency department significantly increases the identification of adolescents with psychiatric problems (437).
3	Different psychometrically validated screening tools to identify suicide risk in adolescents were found: Columbia Suicide Screen (CSS), Diagnostic Predictive Scales (DPS), Suicidal Ideation Questionnaire (SIQ), Suicidal Ideation Questionnaire JR (SIQ-JR), Risk of Suicide Questionnaire (RSQ), Suicide Risk Screen (SRS) and the Suicide Probability Scale (SPS), with the sensitivity ranging between 1.00 and 0.48 (417).
Suicide risk screening in older people	
2++	The implementation of community screening programmes for depression, monitoring and health education for the over-60s is associated with a reduced risk of suicide, and this reduction is higher when the monitoring is done by a psychiatrist instead of a primary care physician. The suicide risk reduction has been observed more in males, especially those associated with impulsivity (448, 449).
2+	The 15-item Geriatric Depression Scale (GDS) and 5-item GDS subscale (GDS-SI) could be used as screening tools in older people in the primary care setting. These scales properly identify patients with suicidal ideation (450).
Suicide risk screening in prisons	
4	For suicide prevention in prisons, the WHO recommends screening for suicide risk at admission, preferably by skilled health personnel, and to perform a post-admission monitoring and appropriate follow-up (451).
2+	A systematic review which evaluated the validity and reliability of screening scales and measuring suicide risk in adults in prison showed that none of them (Suicide Concerns for Offenders in Prison Environment (SCOPE), Suicide Checklist (SCL), Suicide Probability Scale and Suicide Potential Scale) had a predictive value for detecting future suicidal behaviour (452).

Possible adverse effects of screening	
1+	A randomised controlled trial found no evidence that suicide screening programmes had an iatrogenic effect on people, such as increasing emotional distress or causing suicidal ideation (430).
2+ 3	No studies evaluating the potential damage to the health of routine screening programmes for major depressive disorders in children and adolescents (7-18 years) were found (418).
2+	A subsequent study with adolescents and young people of 12-20 years also observed no influence of suicidal ideation items on mood (454).

Recommendations

Screening for suicide risk	
D	In the general population, there is insufficient evidence to either recommend or not recommend suicide risk screening in adults.
C	In educational institutions, the evidence on the effectiveness and the possible impact on suicidal behaviour does not support the recommendation of implementation of screening programmes.
C	In primary care, it is suggested to implement suicide risk screening programmes in adolescents with the presence of suicide risk factors who may need to be referred to a specialist service. The Risk of Suicide Questionnaire (RSQ) can be used as a screening tool as it is the only one validated in Spanish.
C	In the emergency department, it is recommended to conduct suicide risk screening in adolescents with the presence of risk factors (e.g. depressive disorders, alcohol use or impulsivity) or with associated stress factors (e.g. break-up of relationships, unwanted pregnancies or exposure to cases of attempted or completed suicides), even if attending for other reasons.
C	Implementation of screening for depression associated with appropriate follow-up and health education programmes is recommended in the elderly, as they lessen the risk of suicide. The 15-item Geriatric Depression Scale (GDS) or the 5-item GDS subscale (GDS-SI) could be used as screening tools.
D	Suicide risk screening of prisoners is recommended on admission to prison, with subsequent observation and monitoring. No evidence has been found to recommend a screening scale in this population.

10. Suicidal behaviour in risk groups

Key questions:

Suicidal behaviour in childhood and adolescence

- What are the risk and protective factors associated with suicidal behaviour in childhood and adolescence?
- How is suicide risk in childhood and adolescence detected and assessed?
- Are there any adequate psychometric instruments for assessing suicide risk in childhood and adolescence?
- Are there any preventive interventions to reduce suicide risk in childhood and adolescence?

Suicidal behaviour in older patients

- What are the risk and protective factors associated with suicidal behaviour in the elderly?
- How is suicide risk in the elderly detected and assessed?
- Are there any adequate psychometric instruments for assessing suicide risk in the elderly?
- Are there any preventive interventions to reduce suicide risk in the elderly?

Prevention of suicidal behaviour in other risk groups

- What preventive measures have proved effective in preventing suicidal behaviour in patients with high dependency, serious somatic illness or disability?
- What suicide prevention measures should be conducted in carers of patients with high dependency, serious somatic illness or disability?
- What suicide prevention measures should be taken in different work situations considered at risk?
- What prevention measures could be recommended to prevent suicidal behaviour in people suffering domestic violence?
- What suicidal behaviour prevention measures can be recommended for the prison population?

10.1. Suicidal behaviour in childhood and adolescence

One of the most striking statistics internationally is the increasing suicide rates among young people aged 15-24 years, making it one of the three most common causes of death in this age group. Below 15 years of age suicide is relatively rare (455), but when it occurs it has a great impact on the family and socially.

Spain is situated among those European countries with the lowest rates of suicide in infancy and adolescence (455), with the number of cases being generally stable in the last few years (see Table 46, 456)

Despite this, a generally increasing trend was observed for suicide rates among young people during the period 1986-2001, while the trend in most countries is stabilising or decreasing (457).

Table 46. Number of suicides by age and gender in Spain in childhood and adolescence (2006-2009)

Age (years)	Both sexes				Male				Female			
	2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009
< 15	5	12	4	8	2	7	2	7	3	5	2	1
15-19	50	31	41	47	34	22	30	41	13	9	11	6
All ages	3234	3263	3457	3429	2504	2463	2676	2666	730	800	781	763

Source: Compiled by the authors from National Statistics Institute data (456)

10.1.1. Risk and protective factors

10.1.1.1. Risk Factors

Individual Risk Factors

Age

Attempted and completed suicides before puberty are exceptional, but begin to increase with the onset of adolescence (especially associated with mood disorders and substance abuse) (343).

SR of different types of studies 2++, 2+

Gender

In general, suicide is more common in males, although women make more suicide attempts (343, 458). In Spain the suicide rates are about three times higher in males, both in adolescence and in the other age groups (459).

SR of different types of studies 2++, 2+, 3

Depression and other mental disorders

Over 90% of adolescents who commit suicide have some type of mental disorder at the time, and it is estimated that over 50% had a mental disorder in the 2 years prior to the suicide. This is true of older adolescents, although it seems that the psychopathology rates for younger adolescents at the time of suicide may be lower (approximately 60%) (343).

SR of
different
types of
studies
2++, 2+

Depression is associated with both suicidal ideation and behaviour. Depressive symptoms increase the risk of suicide in both sexes (460, 461), but in females the presence of depression is one of the most important risk factors, whereas in males it is the presence of a previous attempted suicide (243).

Although bipolar disorder is rare before puberty, children and adolescents with bipolar disorder have high rates of suicidal behaviour (462). Suicide attempts at this age are more frequently associated with mixed episodes and the presence of psychotic symptoms, although a greater number of suicide attempts have been detected in the case of bipolar disorder I than in other forms of bipolar disorder (463).

Case series
3

Substance abuse is another highly significant suicide risk factor and is highly prevalent among those who carried out a suicide (343). Both the habit of alcohol consumption during periods or moments of discouragement and alcohol abuse in episodic form is associated with an increase in suicide attempts (464).

Other disorders such as dysthymia, anxiety disorders and eating behaviour disorders have been linked to an increased risk of suicide attempts (343).

Attention deficit hyperactivity disorder in childhood could be associated with an increased risk of attempted suicide in adolescence (465). This could be mediated by the high association it presents with conduct disorders, substance abuse, depression-like symptoms and other risk factors for such behaviour (conflict with parents, poor peer relations) in this age group.

Sleep problems have also been associated with the presence of suicidal ideation and behaviour, such that sleep disturbances present in early adolescence correlate with suicidal behaviour at 15-17 years (466). A psychological autopsy study found that teens who committed suicide had higher rates of sleep problems, insomnia and hypersomnia in their final week, and the differences remained stable after controlling for the presence of affective disorder between groups (467).

Although schizophrenia is rare before puberty, its incidence increases gradually with age (377). The onset of a first episode in late adolescence has been associated with an increased risk of suicide (468).

Case series
3

Psychological Factors

Some cognitive variables such as rigidity, being more focused on present difficulties than forward-looking and having negative perception or hopelessness have been associated with suicidal behaviour in this age group. Other factors such as neuroticism and having an external locus of control have also been associated with suicide attempts (343).

SR of different types of studies 2++, 2+, 3

Impulsivity is an important risk factor (343, 469), especially in early adolescence, as are low levels of competence (470).

Emotional inhibition is also highly related to depressive symptoms, suicidal ideation and behaviour (471), acute stress and its interaction with socially prescribed perfectionism (thinking that others expect us to be perfect and will not tolerate our faults) (472).

A lack of problem-solving skills is a risk factor; however, its relationship to suicidal behaviour appears to be mediated by the presence of depression and despair (473).

The presence of a pattern of insecure attachment in infancy has been associated with suicidal ideation (343).

Previous suicide attempt

A history of attempted suicide before puberty is a significant risk factor for suicide, especially in males (343).

SR of different types of studies 2++, 2+

In addition, children and adolescents who attempt suicide are at increased risk of suicide, violent death and psychosocial difficulties between 5 and 10 years after the first attempt (343).

Genetic and biological factors

The genetic markers GRIK2 and GRIA3 have been associated with the presence of suicidal ideation in adolescents (51).

SR of different types of studies 2++, 2+

The most consistent finding in adolescents regarding biological factors is decreased homovanillic acid (dopamine precursor) in the cerebrospinal fluid (343).

Family and social environment

Psychopathology of parents

A history of parental mental disorder (particularly depression and substance abuse) and suicidal behaviour increase the risk of suicide (343).

SR of different types of studies 2++

Family structure or functioning

The risk of suicide and suicidal behaviour in adolescents increases in families with deteriorating relationships between parents and adolescents, although the risk in these adolescents may be mediated by their own psychopathology (343).

SR of different types of studies
2++, 2+

An adolescent's exposure to domestic violence is also associated with the presence of persistent suicidal ideation (474).

Case series
3

Stressful life events

Stressful life events are often associated with both attempted and completed suicide (343). The prevalence of stressful life events is different according to age, sex and the presence of an underlying mental disorder: Conflicts with parents are more common in children under 16 years, emotional difficulties in females and gang participation in males are significant factors. Losing a relationship and legal issues combined with substance abuse are prevalent in adolescents with suicidal behaviour (343).

SR of different types of studies
2++, 2+

Harassment by peers (bullying)

Bullying in schools has been linked to suicidal ideation and behaviour and high levels of emotional distress (343, 475).

SR of different types of studies
2++, 2+

The *Child and Adolescent Self Harm in Europe (CASE)* project using an Irish sample showed that 19.4% of teenagers admitted being the victim of bullying, and the likelihood of these adolescents attempting suicide was four times higher than those who had not had this experience (476).

Case series
3

The association between suicidal behaviour and bullying is especially important in the presence of psychopathology and behavioural problems, especially in males (475).

SR of different types of studies
2++, 2+

Thus, it seems that the association between bullying and suicidal behaviour in men disappears when controlling for conduct problems and depressive symptoms, whereas in females these variables seem to have no influence (477).

Cohort study
2++

Cyberbullying is the latest form of harassment by peers and, although less studied, it is also a risk factor for suicidal ideation and behaviour, for both aggressors and victims (475, 478).

SR of different types of studies
2++, 2+, 3

Exposure

Exposure to near suicide cases or certain information in the media increases the risk of suicide in adolescence (460).

SR of different types of studies
2++, 2+

A family history of suicide is a crucial risk factor in adolescents (343).

Social relationships

An association was found between poor relationships with peers and suicidal ideation or behaviour (460). Factors such as gender, cultural traits or the presence of depression appear to influence the effect that the social network has on the risk of suicidal ideation or behaviour (479).

SR of different types of studies
2++, 2+, 3

Other factors

Sexual orientation

Homosexuality has been associated with an increased risk of suicide in adolescence (460). Bisexuality could also increase depressive symptoms and suicide attempts (480).

SR of different types of studies
2++, 2+, 3

One study found that adolescents with suicidal behaviour with homosexual tendencies had higher levels of anxiety than the general population and were more likely to have visited a mental health professional before their death (481).

Physical and sexual abuse

The experience of physical and sexual abuse results in a high incidence of suicidal behaviour in adolescence (482). Biographical circumstances like those described can hinder the acquisition of social skills, which in turn are also risk factors for suicide (343).

SR of different types of studies
2++, 2+

One way or another, abuse is a major risk factor for both the start and persistence of suicidal behaviour, especially in adolescence (483).

Case series
3

Precipitating factors

Some risk factors that may be present before suicidal behaviour and act as triggers are:

- Stressful life events (343, 484)
 - Crisis with parents/family conflicts (343, 484)
 - Psychological/personal factors (484)
 - Problems with peer group (343)
 - Difficulties in school (343).
- SR of
different
types of
studies
2++, 2+

The risk factors for suicide in adolescents could be classified according to the Mann et al. diathesis-stress model (485): some factors act as vulnerability or diathesis factors (predisposing), others act as stressors (or triggers), while others may be classified as vulnerability or stress depending on their temporal association with suicidal behaviour (460).

Based on this proposal, Table 47 summarises the attempted and completed suicide factors in children and adolescents.

Table 47. Factors associated with suicidal behaviour in children and adolescence, based on the Mann model and evidence level

Evidence level	Vulnerability factors (predisposing)	Stress factors (triggers)	Vulnerability-Stress factors*
High	<ul style="list-style-type: none"> – Biological and genetic factors – Suicidal behaviour in the family 	<ul style="list-style-type: none"> – Depression and other mental disorders – Drug abuse – Exposure to cases – Family and peer group problems – Stressful life events 	<ul style="list-style-type: none"> – Previous suicide attempt – Physical abuse and sexual abuse – Bullying – Psychological factors (Cognitive rigidity, hopelessness, neuroticism and external locus of control).
Moderate/low	<ul style="list-style-type: none"> – Dysfunctional family environment – Attention Deficit Hyperactivity Disorder 	<ul style="list-style-type: none"> – Dysthymia, anxiety and eating disorders – Sleep problems (insomnia or hypersomnia) – Exposure to suicide in the media. 	<ul style="list-style-type: none"> – Other psychological factors (impulsivity, perfectionism).

* Factors that can act as pre-disposing or triggering
Source: Modified from Evans et al. (2004) (460).

10.1.1.2. Protective factors

Despite the important role of protective factors in reducing the risk of suicide in children and adolescents, the number of studies focusing on them is much lower than those focusing on risk factors.

SR of
different
types of
studies
2++, 2+

The existence of a good family environment is one of the strongest protective factors (343). Adolescents from highly cohesive families with little conflict are those with the lowest probability of making a suicide attempt (343, 345, 486). Case-control study 2+

Other protective factors are:

- Problem-solving skills and coping strategies (343, 486)
- Positive values and attitudes, particularly against suicide (343, 486)
- Being female (78, 486)
- Religious beliefs (343)
- Ability to structure reasons to live (486)
- Medium-high education level (343)
- Internal locus of control, self-esteem, intelligence, support systems and resources (78).

10.1.2. Detecting and assessing suicide risk

Assessment of the risk of suicide in children and adolescents requires extensive psychopathological and social assessment (343). It is important to conduct this assessment towards specific risk factors for this age group. SR of different types of studies 3

Especially for children and adolescents, their assessment should be extended to people close to them, such as parents or teachers. It is important to have knowledge of the context of adolescents, since the validity of the information provided depends in part on factors such as the level of cognitive development or degree of psychological involvement at the time of the interview. However, children are more likely to be more open about their suicidal ideation and behaviour than their parents (243, 343).

Information provided by parents and children about the symptoms of suicidal behaviour is most likely to agree in areas such as substance abuse and disruptive behaviour disorders; however, parents report less about behaviour disorder in which aggression or depression is less prevalent (343). Cohort studies 2+

It is important to note there is no evidence that assessing for the presence of suicidal ideation and behaviour increases the risk of suicide or discomfort in adolescents; conversely, in addition to its diagnostic purposes, it could improve anxiety levels and help the adolescent feel better understood (15, 74, 430, 454). RCT 1+ Case series 3 Expert opinion 4

One RCT comparing a normal evaluation with a therapeutic assessment (psychosocial assessment and cognitive intervention), to investigate any differences in the commitment and adherence to treatment when following up adolescents after a suicide attempt, found after 3 months that the therapeutic assessment significantly increased commitment to treatment, so it could be useful in the first interview in adolescents with suicidal behaviour (487). RCT 1+

10.1.3. Psychometric tests

Although a clinical interview is the essential tool in assessing the risk of suicide, the use of scales can be very helpful in making the assessment. The self-administered questionnaires can provide additional information, especially in people who are less forthcoming or who have difficulties in communicating suicidal thoughts verbally, who may be more able or willing to provide information about suicidal ideation this way.

One study compared a suicide risk assessment by clinicians with an assessment by trained evaluators using the KSADS-PL semi-structured interview. The results of this study show that the clinicians underestimated the presence of suicidal behaviour and overestimated suicidal ideation, suggesting that the use of scales in an interview could increase the reliability of the assessment (488).

Case control
study
2+

Table 48 shows some instruments that have been used in this age group.

Table 48. Suicide risk assessment instruments and related issues in childhood and adolescence

Name (reference)	Purpose and features	Application mode	Number of items
Risk of Suicide Questionnaire, RSQ (120)	Assessment of suicidal behaviour. Spanish version exists.	Interview	14 4 (short version)
Beck Hopelessness Scale, BHS (489)	Assessing the degree of hopelessness. Adapted and validated in Spanish (81).	Self-assessment	20
Suicidal Intent Scale, SIS (490)	Assessment of suicide intent. Spanish version exists.	Interview	15
Beck Depression Inventory, BDI (86)	Assessment of depression. Adapted and validated in Spanish (491-493).	Self-assessment	21
Kiddie Schedule for Affective Disorders and Schizophrenia for School-Age Children, K-SADS (494)	Assessment of depression. Adapted and validated in Spanish (495).	Semi-structured interview	
Children Depression Rating Scale, Revised, CDRS-R (496)	Evaluation of the severity of depression (verbal and non-verbal information rated). Adapted and validated in Spanish (495).	Semi-structured interview	

Source: Prepared by authors.

10.1.4. Preventive interventions

Interventions in schools

Universal Prevention: Curriculum-based prevention programmes

Curriculum-based prevention programmes have been used in US schools for 20 years, and are now one of the most widely implemented measures. The programmes usually consist of 3-5 days of classes; using videos or presentations on issues related to suicide. The overall objectives of these programmes are (498):

- Provide awareness of suicidal behaviour
- Teach adolescents to recognize the warning signs of suicide, both in themselves and others
- To provide information on health care resources at their disposal for help and to resolve their problems.

However, despite being one of the most widely used methods of suicide prevention, there are few studies that have evaluated the results. A recent systematic review (498; main features summarised in Table 49) included 8 studies of 6 suicide prevention programmes, with adolescents aged 13-19 years.

Most of the studies were conducted in the US, except for one that took place in Israel (190) and another in Belgium (502). Although none of these studies looked at suicide rates as an outcome variable, it was generally found that there was a significant improvement in the level of knowledge about suicide, attitudes towards themselves and self-help behaviour. A significant decrease in suicide attempts was also found in 2 of the studies, Aseltine and DeMartino (504) and Aseltine et al. (416) - (498).

SR
1+

Of all the aforementioned programmes, the Signs of Suicide (SOS) is one of the best known; with students receiving information about depression and suicide warning signs. Later, they are taught to react to a person with suicidal risk, offer help and finally, inform a responsible adult. The programme also includes a depression screening, with the Columbia Depression Scale (CDS). The assessment of this prevention programme, which was randomised and controlled, showed a significant decrease in self-reported suicide attempts after its launch (416, 504).

RCT
1+

Table 49. Features of a study of curriculum-based suicide prevention programmes for adolescents

Author, year (reference)	Patients	Behaviour targeted	Intervention
Klingman and Hochdorf, 1993 (190)	237	Knowledge about suicide, attitude, empathy, emotions, coping strategies.	Educational sessions and skills training, based on the Meichenbaum intervention model.
Ciffone, 1993 (499)	324	Negative attitudes about suicide, self-help behaviour.	2 x 15-minute videos and 40 minutes of structured discussion
Kalafat and Elias 1994 (500)	253	Attitudes and knowledge about suicide by the patient. Self-help behaviour and acceptance of the intervention.	3 x 40-45 minute classes on suicide, attitudes and warning signs. The third class includes a video.
Kalafat and Gagliano, 1996 (501)	109	Self-help behaviour.	5 days of classes with information about suicide, as part of the health education subject.
Aseltine and DeMartino, 2004 (428)	2100	Suicidal ideation and behaviour, knowledge and attitudes toward depression and suicide, self-help behaviour.	“Signs of Suicide” programme designed to raise awareness about suicide and depression screening.
Portzky and van Heeringen, 2006 (502)	172	Knowledge and attitudes about suicide, coping skills.	“Signs of Suicide” programme designed to raise awareness about suicide and depression screening.
Ciffone, 2007 (503)	421	Negative attitudes about suicide, self-help behaviour.	3 days of lessons aimed at improving knowledge about suicide and self-help.
Aseltine et al. 2007 (416)	4133	Suicidal ideation and behaviour, knowledge and attitudes toward depression and suicide, self-help behaviour.	“Signs of Suicide” programme designed to raise awareness about suicide and depression screening.

Source: Compiled by authors from Cusimano and Sameem (498)

Selective Prevention: Prevention programmes based on skills training

These programmes focus on adolescents at risk of suicidal behaviour, so start with a pre-assessment to classify participants.

One of the most well-known programmes of this type is “*Personal Growth Class*”. This study compared three groups: a semester of group activities to increase social skills, mood assessment activities, communication, improving self-esteem, decision-making and self-control; another group also added a semester of applying skills learned at home and at school (*Personal Growth Class II*); and a third group where only assessment was conducted. This study found a decrease in suicide risk behaviour, depression, hopelessness, stress, aggression and increased self-esteem and social network in the three groups; however, a significant increase in personal control was found only in the experimental groups and not in the control group (505).

RCT
1+

Another selective prevention programme (Randell et al., 2001; 506) compared a brief intervention called *Counsellors Care (C-CARE)*, C-CARE plus 12 more skills training sessions and a normal treatment group at school. No differences were found between the groups for suicidal behaviour, aggression or family stress; although a significant increase in personal control, problem-solving skills and perceived family support was found in the skills training groups.

RCT
1+

Indicated prevention: treatment at school

Tang et al. (234) conducted a study in adolescents at risk of suicide evaluating the effectiveness of an intensive IPT intervention (10-12 sessions) in schools compared with normal treatment in schools (support and psychological education). IPT was more effective than normal treatment in reducing depression, suicidal ideation, anxiety and hopelessness.

RCT
1+

Screening-based prevention programmes in schools

Screening in schools to identify young people at high risk of suicide (previous suicide attempts, suicidal ideation, depression or substance abuse) could be a good strategy in schools. Normally, self-administered tests and interviews conducted by professionals at the schools are used. Studies that have evaluated their effectiveness have shown that this screening results in a low number of false negatives, although a large number of false positives. This raises the issue of the need for further clinical evaluation to assess the real risk of suicide. Another problem with this type of screening is its acceptability, since it is often perceived as a more invasive technique than curriculum-based programmes or skills training (377).

SR of
different
types of
studies
2++, 3

Currently, there is no conclusive evidence of the effectiveness of screening programmes in the school environment.

SR of
different
types of
studies 2++

Gatekeeper training

Training programmes for gatekeepers or key figures are based on training people who can detect adolescents at risk of suicide; usually teachers or peers (377).

Gatekeeper training programmes for staff in schools have not been sufficiently researched, although some studies have shown an increase in knowledge and attitudes towards suicide and in skills to identify students at risk of suicide (377).

SR of
different
types of
studies
3

Peer helper programmes have also not been adequately evaluated, so there is insufficient evidence of their effectiveness. Any adverse effects of these programmes on adolescents acting as a gatekeeper are also unknown (377).

SR of different types of studies
1+, 3

Prevention in patients with mental disorders

The close relationship between suicidal behaviour and mental disorders indicates that the appropriate management of these patients could prevent suicidal behaviour.

SR of different types of studies
3

Some areas for improvement in such management would be (377):

- Conducting a thorough assessment to assess what would be the most beneficial treatment strategy
- Paying particular attention to the presence of comorbid disorders
- Regular review of symptoms of depression, hopelessness, suicidal ideation and the possible presence of stressful life events, since the risk of suicide may change during treatment
- Coordination between the different levels of professional care to perform appropriate monitoring.

Treatment options for suicidal behaviour in childhood and adolescence are psychotherapeutic treatment, drug treatment, combination therapy and, in rare cases, ECT.

Other prevention strategies

Telephone helplines

The idea of a telephone helpline is that it may provide immediate support for a potential suicide associated with times of crisis. It is aimed at providing (507):

Case series
3

- A support service, when another might not be available
- Confidentiality and anonymity to callers
- Information about the health resources available in each case
- Privacy, when people can express themselves without being judged.

However, there is no conclusive evidence of its efficacy (377), and there have been few studies assessing its use by adolescents (508-511).

SR of different types of studies
3

Moreover, a study of 519 adolescents showed that only 2.1% used these support lines, and generally there were more negative attitudes towards this type of resource than others, such as those offered on the Internet (507).

Case series
3

Access to methods

Most studies on the control of access to the different methods have been carried out in the USA and mainly involve firearms. Their presence in the home is a risk factor in adolescents, and some studies have shown that restricting access to them decreases suicide rates, particularly in adolescents and young adults (377, 512).

SR of different types of studies 2+, 3

Media and the Internet

The media play a crucial role in the prevention of suicide in this age group. In general, the impact of media coverage on suicidal behaviour depends on factors such as the amount, duration and importance attached to the information on suicides, and this impact seems to increase in adolescence (512).

SR of different types of studies 3

The effect of the Internet has been less investigated than other media. However, there is evidence of a relationship between website and chat room visits, which provide detailed information on the different methods of suicide, and an increase in suicide rates, particularly in young people, although no causative relationship has been established (365, 513).

Case series 3

In addition, the global nature of the Internet, its easy access and fast access to information, are factors that have favoured the emergence of phenomena such as suicide pacts, *online* narrated suicides and false suicides; and adolescents seem to be the most vulnerable to these phenomena (369).

Expert opinion 4

The Internet suicide prevention strategies necessarily include the regulation of Internet service providers and the use of filtering software by parents (365, 513).

Case series 3

However, the Internet also offers new possibilities for prevention, since it is a great source of information used by young people to access information on health in general and specifically about stigmatised illnesses, such as mental disorders. It is therefore important that this information is available and specifically targeted at adolescents and their families and is based on the scientific evidence available (514).

Expert opinion 4

10.2. Suicidal behaviour in older people

Suicide prevention in people over 65 years is a priority at international level (2, 53, 73), since these people represent a group at particular risk of suicide, much like adolescents and young adults. Advanced age is an important predictor of suicidal behaviour and, unlike with other age groups, suicide rates have not experienced a downward trend in recent years, especially in those above 80 years old (515).

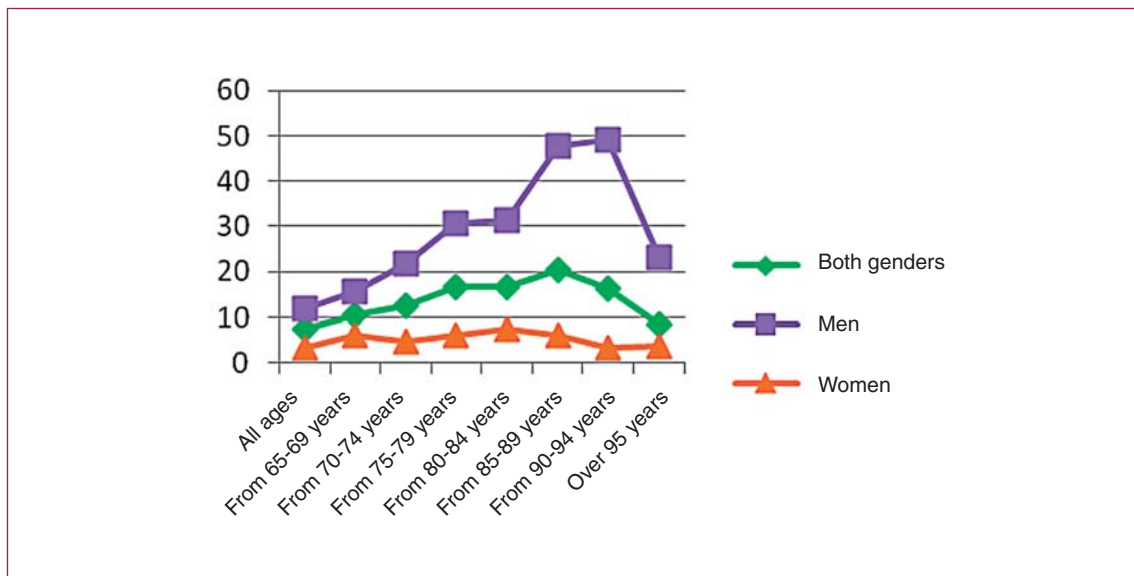
In most countries that provide suicide data to the WHO, the rates increase steadily with age for both men and women, although there are some countries with different patterns. In Canada, for example, suicides are more common among young adults and middle-aged males; while, in China, the highest suicide rates are in the older age groups in both sexes. These differences appear to be largely due to the cultural factors of the country or region (516).

The WHO conducted a multicentre study in Europe between 1995 and 2004, which showed that the incidence of suicide attempts after 65 years is 61.4/100,000 (57.7/100,000 in men and 64/100,000 in women). The highest rates were found in Sweden, and the lowest in Spain (Guipúzcoa), which was 32.3/100,000 people (515).

In another study in the UK, there was a decrease with age in the relationship between attempted and completed suicides, from 200 in adolescence to below 10 in the over 60 years age group (12.6 for women and 6 for men). The difference in the ratio between attempted and completed suicide in women and men also reduced throughout the life cycle, although a higher proportion of high intentionality attempts were found in older people. These data are extended to most European countries (517).

The suicide rates in Spain increase with age from 65 years, especially in men, reaching 49.18/100,000 in the 90-94 year age group. In women, the highest rates were found in the 85-89 year group, which was 7.29/100,000 (Figure 5) (INE 2009) (518).

Graph 5. Death rates (per 100,000 population) for suicide by age group and gender



Source: Prepared by the authors from Spanish Statistical Office data.

10.2.1. Risk and protective factors

10.2.1.1. Risk Factors

Suicidal behaviour in the elderly has some different features to other age groups. Suicide attempts in this age group are characterised by a greater intentionality (517, 519, 520) and associated mortality (517, 521) than in younger people. It is especially important to identify and assess the risk factors that have been most associated with suicide in this age group.

Previous suicidal behaviour and suicidal ideation

As with other age groups, previous suicide attempts and suicidal ideation are a very significant risk factor in the elderly (317, 515, 519, 522, 523), both short and long term (317), especially in people with mental disorders (515).

SR of
different
types of
studies
2++, 2+

In assessing suicidal ideation, it must be borne in mind that older people can avoid communicating suicidal ideation or depressive symptoms (317).

Mental disorders and addictions

Various studies have shown that a history of mental disorder is associated with suicide, especially mood and depression (53, 73, 317, 344, 515, 519, 522-525).

SR of
different
types of
studies
2++, 2+

Therefore, the presence of depression or depressive symptoms needs to be checked for, given that at this stage of life depression usually occurs with increased somatisation, psychotic symptoms, apathy, irritability and agitation (317, 526, 527).

Case Control
study
2+

Other disorders that increase the risk of suicide are psychotic disorders and substance abuse, especially alcohol, in both men and women (317, 515, 522, 528). In addition to the association with mental disorder, it is also important to consider possible chronic physical illness as comorbidity (529).

Case series
3

In a study conducted at a home for the elderly in Spain, deaths from suicide reached 2% and the ratio between attempted and completed suicide was close to 1:1, i.e. the effectiveness of the suicide method was very high. Everyone who committed suicide had a mental disorder and nearly 50% had conducted a previous suicide attempt (530).

Case series
3

A history of psychiatric treatment is also a risk factor for suicide (523), and is interpreted as a history of psychiatric morbidity, although this depends on the condition and type of treatment (531).

Case Control
study
2+

Personality traits and disorders

Although personality disorders are less common in this age group, their presence could increase the risk of suicide (317, 522), especially for the 65-80 year age group, and so should be assessed specifically. There appears to be an association between personality disorders in group B (impulsive and borderline) and paranoid with suicidal behaviour (532).

SR of different types of studies
2++, 2+

Personality traits such as cognitive rigidity have also been associated with increased suicidal behaviour. These features are especially important when combined with situations of loss or the presence of other stress factors (317).

Case Control study
2+

Physical Illness

The presence of chronic physical illness is a major risk factor for suicide (53, 73, 317, 515, 522, 524, 533-535): e.g. visual impairment, neurological disorders, cancer, chronic lung disease, arthritis, bone fractures and the presence of moderate or severe pain. Besides the actual presence of a disease, it is important to consider the perception the person has of it (317, 522).

SR of different types of studies
2++, 2+

The evidence is inconclusive regarding dementia. In general, suicide rates are higher in mild dementia and the risk increases after patients are diagnosed during hospitalisation and with Huntington's disease (536). Further study of this review found no association between dementia and suicide risk (523).

Older people hospitalised for physical illness are at an increased risk of suicide, especially if aged over 80 and in women (537). A higher risk was also found in older people treated with benzodiazepines (whose type and dosage were not recommended) and narcotic analgesics (535).

Cohort study
2+

Social support and stressful life events

A relationship exists between certain psychosocial factors and the risk of suicide. Two of the main factors in the elderly are social isolation (53, 73, 515, 524, 538) and loneliness (523).

SR of different types of studies
2++, 2+

The risk may be greater after a divorce or during widowhood (73, 317, 515, 522, 523), as well as for people living alone (523, 524) or away from family and friends. Family problems (317, 522), interpersonal problems (533), bereavement (533), moving house and legal or financial problems (317) are also risks.

Case Control study
2+

Functional deficit

The lack of ability to carry out daily living activities increases functional disability and with it the risk of suicide in older people (317).

SR of different types of studies
2++

10.2.1.2. Protective factors

Some factors that may reduce the risk of suicide in older people (317) are:

- Having a healthy lifestyle
- Maintaining contact with family and friends
- Not consuming alcohol excessively
- Staying active
- Religious practices and a sense of purpose in life
- Personality traits such as extraversion, openness to experience and responsibility.

SR of different types of studies
2++

Other factors that increase psychological wellbeing can also indirectly reduce the risk of suicide: e.g. perceptions of the meaning of life and satisfaction with it, coping skills, orientation to the future and spirituality (317).

Case series
3

Other protective factors have been associated with decreased suicidal ideation (344):

- Internal locus of control
- Perception of self-efficacy.

Case series
3

Table 50 summarises the risk and protective factors associated with suicidal behaviour in older people.

Table 50. Risk and protective factors associated with suicidal behaviour in older people

Risk factors	Protective factors
<ul style="list-style-type: none"> – Previous suicidal conduct and presence of suicidal ideation – Mental disorder and addictions – Anankastic personality disorders and traits – Chronic physical illness – Lack of social support, isolation and the presence of stressful life events – Functional deficit 	<ul style="list-style-type: none"> – Healthy lifestyle – Contact with family and friends – Not consuming alcohol excessively – Staying active – Religious practices and sense of purpose in life – Personality traits: extraversion, openness to experience and responsibility – Internal locus of control – Perception of self-efficacy – Satisfaction with life – Coping skills – Future orientation and spirituality.

Source: Prepared by the authors

10.2.2. Detection and assessment of suicide risk

A high percentage of the elderly make contact with the health system before an episode of suicidal behaviour, particularly primary care and to a lesser extent mental health (515). An assessment of risk and protective factors to prevent suicidal behaviour in older people is therefore particularly important.

Given the presence of the aforementioned specific risk factors, special attention must be paid to an assessment of the person's circumstances, environment, expectations, quality of life and presence of somatic illness when assessing the risk of suicide in the elderly (317).

The following are a list of questions for clinicians to use when assessing suicide risk (Table 51).

SR of
different
types of
studies
3

Table 51. List of questions for clinicians to use when assessing suicide risk

- Who does the patient live with? What is his social network like? What is his relationship with his family like? Is there a problem preventing him from being with people?
- How does the patient cope with routine daily activities and looking after himself? Does he have any kind of help?
- What is the physical condition of the patient? Has he recently been in hospital? What is his perception of the prognosis and treatment of his illness?
- What is the patient's mental state? Has he been previously admitted to hospital due to having a mental disorder or for suicidal behaviour?
- Does he abuse alcohol or any prescribed medication (especially hypnotics)?
- Does the patient have symptoms of depression?
- Does the patient feel that life is worth living? What is the patient's attitude towards death? Does he want to die? Does he ever think about it? Does he have any specific plans about how to die and how to do it?

Source: Grek A. (522)

10.2.3. Psychometric instruments

Assessment tools may help in assessing the risk of suicide in the elderly; although, as in other age groups, it cannot replace clinical judgment.

Most suicide risk assessment scales have not been developed specifically for the elderly, nor validated in this age group. However, some aspects can be used to assess the presence of depressive symptoms, hopelessness, suicidal ideation, history of previous suicidal behaviour, suicidal intent, satisfaction with life and reasons for living.

One of the scales with the best psychometric properties for assessing the risk of suicide is the *Beck Scale for Suicide Ideation* (SSI), (94). Although initially developed for young adults, it has demonstrated sufficient psychometric properties for use in the elderly (87).

SR of
different
types of
studies
2++

Other scales such as the *Geriatric Depression Scale* (GDS; 539) or the *Geriatric Hopelessness Scale* (GHS; 540) are not specifically for assessing suicidal behaviour, however, they include suicidal ideation items to properly identify the elderly with high or low suicide ideation (317).

SR of
different
types of
studies
2++

Both the 15-item GDS and the brief 5 version (GSD-I) adequately detected the presence of suicidal ideation when compared with the *Hamilton Rating Scale for Depression* (HRSD) and the DSM-IV structured interview. This could therefore be a screening tool to consider, although studies are needed to evaluate its applicability in clinical practice (450).

Case series
3

The Reasons for Living Scale-Older Adult Version (RFL-OA) has shown good psychometric properties with high internal consistency (Cronbach alpha coefficient = 0.98), as well as adequate reliability, validity and predictive capacity for suicidal ideation; so this could also be a good tool for assessing the risk of suicide (541).

Case series
3

The WHO Five Well-Being Index (WHO-5-J) is a 5-item scale that has demonstrated its suitability for assessing suicidal ideation. A study in a sample of elderly people in Japan found that the scale had adequate internal consistency (Cronbach alpha coefficient = 0.87). The cut-off point of 14 gave the best combination of sensitivity (78%) and specificity (76%). When the scale was combined with the absence of perceived social support, the ideal cut-off point was 12 or having scored 0 or 1 in any of the 5 items, as this gave better scores (sensitivity = 87%, specificity = 75%, NPV = 99% and PPV = 10%) (542).

Case series
3

The *Brief Symptom Rating Scale* (BSRS-5) was used in a study to assess the need for referral to mental health for over-65s after a suicide attempt. Using the cut-off point of 56, 33.9% of such patients needed to be referred. This is low compared with previous studies; perhaps due to the absence of the somatic symptom assessment in this scale and that the scores depend largely on whether the scale is administered to the patient or a family member (543).

Case series
3

There are other scales, such as the *Harmful Behaviours Scale* (HBS; 544) and the *Geriatric Suicide Ideation Scale* (GSIS; 545), which were developed specifically for older patients; although there are no robust validation studies yet to support their use in clinical practice (317).

SR of
different
types of
studies
2++

Table 52 describes some of the features of the instruments described in this section.

Table 52. Suicide risk assessment instruments in the elderly

Name (reference)	Aim and features	Application mode	Number of items
Beck's Scale for Suicide Ideation (SIS) (94)	Assessment of suicidal ideation Spanish version available.	Interview	19
Geriatric Depression Scale (GDS) (539)	Assessment of depression Also a short version; both validated in Spanish (546, 547).	Self-administered	30 (15 in short version)
Geriatric Hopelessness Scale (GHS) (540)	Evaluation of pessimism and thoughts of hopelessness.	Self-administered	30
Reasons for Living Scale-Older Adult Version (RFL-OA) (541)	Evaluates reasons for living.	Self-administered	69
WHO-Five Well-Being Index (WHO-5-J) (542)	Evaluates wellbeing Spanish version available.	Self-administered	5
Brief Symptom Rating Scale (BSRS-5) (543)	Evaluation of anxiety, depression, hostility, interpersonal sensitivity and other symptoms.	Self-administered	5

Source: Prepared by the authors

10.2.4. Preventive interventions

The classification of public health prevention (primary, secondary and tertiary) has been modified for the prevention of mental disorders. Primary prevention in this classification is composed of a continuum covering universal, selective and indicated prevention (548). Table 53 summarises these three levels of prevention, and provides some intervention proposals that may be useful in the prevention of suicide in the elderly (516).

Expert
opinion
4

One of the problems of suicide prevention in the elderly is that, while there are programmes designed for this purpose, many of them have not been empirically tested.

A recent systematic review to analyse the scientific evidence on suicide prevention programmes in the elderly included 11 different interventions for reducing suicidal behaviour or depression (348). However, only the studies that evaluated outcome variables on suicidal behaviour (suicide ideation or suicide rate) were included to answer the clinical question raised in this section of the CPG.

Table 53. Preventive intervention levels, objectives and examples for suicide prevention in the elderly

Intervention	Objectives	Examples
Universal	To reduce morbidity and mortality through the intervention on risk factors and enhancing protective factors in the entire population.	<ul style="list-style-type: none"> – Educational campaigns about normal ageing, depression and suicidal behaviour for the general public, the media and relevant professionals – Restricting access to lethal means – Promoting healthy ageing programmes.
Selective	To prevent morbidity and mortality through the factors that predispose a person to a particular risk.	<ul style="list-style-type: none"> – Promoting community support programmes for persons with social isolation – Focusing medical and social services in reducing disability and enhancing functionality – Training key figures for suicide risk detection (gatekeeper) – Promoting continuity of care after discharge – Teaching strategies to improve access to mental health.
Indicated	To treat high-risk individuals with the presence of signs and symptoms to prevent suicidal behaviour or associated mental disorder.	<ul style="list-style-type: none"> – Increasing screening and treatment in primary care, especially in people with depression, anxiety and substance abuse – Improving assessment and restricting access to lethal means.

Source: Prepared by the authors from Conwell et al. (516).

Universal prevention

Training of professionals and educational measures

Suicidal behaviour training is essential for healthcare personnel involved in the treatment of older people. Some areas that should be considered for this training are (317):

- Identification of risk factors and specific protection for this age group
- Evaluation and management of psychometric instruments for assessing the risk of suicide in older people
- Powers for intervention in suicide risk situations
- Suicide risk management and monitoring.

SR of different types of studies 3

Contact with health professionals may be crucial in preventing suicide, as it can facilitate communication of suicidal ideation or intent to establish appropriate measures (549).

Qualitative study
Q

Education should be aimed at risk groups, carers, the general public and media to raise awareness of the specific problems of this age group and reduce the stigma associated with suicide (317).

SR of different types of studies
3

Restricting access to lethal means

According to the Spanish National Statistics Institute, the most common methods of suicide in Spain in the over-65s are hanging, drowning and jumping from height (550). Several studies in different areas of Spain have shown that hanging has been the most widely used method of suicide for decades (551).

Case series
3

Another commonly used method is the use of drugs. In one study conducted in a general hospital in England, of the 730 attempted suicides in elderly people, 86% were performed by drug poisoning (49.3% paracetamol, 24% tranquilisers and 15.9% antidepressants). About a quarter of the episodes were performed with high suicidal intent and were repeated in 15.3% of cases, with 8.2% in the first year after the attempt. At the end of the monitoring period (20 years) there were 30 suicides (552).

Case series
3

Restricting access to potentially suicidal means is essential. Thus, physicians should reduce the risk of overdose by prescribing smaller containers and monitoring their use (317).

SR of different types of studies
3

Selective prevention

Telephone helplines

There is some evidence for the effectiveness of hotlines in preventing suicide. A telephone monitoring study (Telehelp/Telecheck) conducted in Italy evaluated the long-term effects of this monitoring on suicidal behaviour. This study was conducted at the selective prevention level, because it was conducted on a sample of older people with social isolation and functional deficit (553).

Case Control study
2+

The programme consisted of maintaining telephone contact twice a week to provide support and assess needs, as well as being an emergency 24-hour service. There were 18,641 older people contacted (84% female) over 11 years. The number of suicides in people who participated in the study, especially women, was less than in the greater population of the region where it took place during this period.

Community interventions

A lack of social support is a risk factor for suicide. A self-assessment study of depression, promotion of group activities and psychological education was performed in a rural area of Japan. The population belonged to an area with high rates of suicide, poor communication and poor health perception. After implementing the programme, the suicide rate in women older than 65 years dropped by 76%, leading to a significant decrease compared with the population of the reference area. In men there was no change (554).

Case Control
study
2+

Therapies aimed at promoting resilience

IPT was recently adapted for use with older people at risk of suicide. IPT theory postulates the existence of a bidirectional association between interpersonal functioning and depression. Similarly, interpersonal problems and a lack of social skills may cause or exacerbate suicidal ideation and behaviour, and vice versa. This new approach of IPT focuses on suicide risk factors during assessment and treatment sessions, which are not included in standard IPT manuals. The modified IPT (16 weekly sessions) was used in a sample of 11 participants aged over 60 years who had expressed suicidal ideation, death wish or who had made previous suicide attempts. The results showed a decrease in ideas of death, suicidal ideation and in the severity of depression symptoms (352).

Case series
3

The features of these 2 selective prevention studies are summarised in Table 54.

Table 54. Selective prevention studies of suicidal behaviour in the elderly

Author, year (reference), Type of study, Evidence level	Patients	Objective (variable suicidal behaviour)	Intervention
De Leo et al., 2002 (553) Case-control study, 2+	18,641	Suicide rate	Telephone contact twice a week and 24-hour emergen- cy service.
Oyama et al., 2005 (554) Case-control study, 2+	12,812	Suicide rate	Group Activities, psychologi- cal education and assess- ment of depression.
Heisel et al., 2009 (352) Case series, 3	11	Suicidal ideation	IPT

IPT: interpersonal therapy

Source: Prepared by authors.

Indicated prevention

Depression screening and treatment

In Japan, 5 cohort-based depression screening studies were conducted in rural areas, where the suicide rates for the elderly are high. The results of these studies were collected in a meta-analysis.

The intervention consisted of a community depression screening and subsequent monitoring and health education. The screening was performed in two steps: first, a self-administered questionnaire, and secondly an assessment by nurses or psychiatrists. The monitoring was performed by the psychiatrist or primary physician. The study showed that community-based depression screening interventions with subsequent monitoring reduce the risk of suicide. When the monitoring was performed by a psychiatrist, the interventions were more successful, especially in males (448).

Meta-analysis
2++

Following the meta-analysis, another community intervention study, similar to those above, was performed in Japan. First, a self-administered screening instrument was used, followed by an assessment and subsequent monitoring by the psychiatrist, social workers or psychologists. In this study, the risk of suicide was reduced by 61% in men and was also lower in women (449).

Quasi-
experimental
study
2++

Collaborative Care

Few studies on older people that include suicidal behaviour as an outcome variable have been performed. Specifically, only 2 randomised clinical trials were conducted to reduce suicidal ideation in older patients. Both were conducted on patients with depression in primary care in the context of *Collaborative Care*, and are thus indicated prevention interventions.

In a primary care (IMPACT) study conducted on patients with major depression and/or dysthymia to reduce suicidal ideation, the intervention included a *Depression Care Manager* (a nursing and psychology professional) who was responsible for conducting the assessment and psychoeducation. Treatment options were antidepressants, the possibility of problem-solving therapy (4-8 sessions) and a follow-up; this consisted of a personal or telephone interview on a weekly/fortnightly basis in the first phase and monthly thereafter. The normal care group received antidepressants, counselling or referral to a mental health specialist.

People who received the experimental intervention had significantly lower rates of suicidal ideation at 6, 12, 18 and 24 months (219). The prevalence of suicidal ideation in this study was 14% and the cumulative incidence at 24 months was 31%. The probability of occurrence of suicidal ideation was mediated by the development of depression symptoms (555).

Among the limitations of the study were the following: while providing information on the intervention and normal care group as a whole, no data was provided on the effect of specific treatments (the antidepressants in each group, patients who received PST, counselling or referrals to mental health). In addition, high-risk patients were excluded, and no data on suicide attempts or hospitalisations due to suicidal ideation were given, although no suicides occurred.

Bruce et al. (232) evaluated the effectiveness of an intervention versus standard treatment in patients over 60 years with major or minor depression and suicidal ideation (PROSPECT study). An algorithm for treatment of depression with citalopram and/or IPT as first choice was given in the experimental group. In addition a practitioner trained in the management of depression (social worker, nurse or psychologist) was included. For the usual treatment group, information was given to doctors about the treatments recommended in the depression guidelines.

RCT
1+

At 12 months, both the experimental group and the normal therapy group had a significant reduction in suicidal ideation, although patients treated according to the algorithm showed a more rapid decrease in depression symptoms (including suicidal ideation), and a higher recovery rate than the control group. Recovery was slower in older people with more severe suicidal ideation or a history of suicidal behaviour; and there were more relapses in this subgroup.

At 24 months, patients who received the experimental intervention achieved a significant reduction in suicidal ideation compared with the control group (233).

As with the above study, it was not possible to evaluate the specific effect of each of the treatments (medication or psychotherapy).

Clinical prevention programmes

This intervention was compared with a group of elderly people from another study. The patient characteristics in this group were similar to the ESPP group, although it included more people living alone, and the percentage of depression and suicidal behaviour was significantly higher. The suicide rate at two years was significantly less in the ESPP group than the control group (1.99% vs. 7.58%), and women over 85 years old were the ones that benefitted most from the intervention. There were no significant differences between the groups at 2 years regarding repeated attempts (556).

Case series
3

A Chinese study evaluated the effectiveness of a suicide prevention programme in older people: the *Elderly Suicide Prevention Programme* (ESPP; 556). The experimental intervention components were combined treatment for depression, key figures training in risk detection and follow-up after a suicide attempt following a community-oriented psychiatric model.

Table 55 summarises the most important features for the indicated prevention studies.

Table 55. Indicated prevention studies of suicidal behaviour in older people

Author, year (reference), Type of study, Evidence level	Patients	Objective (variable suicidal behaviour)	Intervention
Oyama et al., 2008 (448) Meta-analysis, 2++	49,035	Suicide rate	Depression screening + monitoring
Oyama et al., 2010 (449) Quasi-experimental Cohort study, 2++	486	Suicide rate	Depression screening + monitoring
Unutzer et al., 2006 (555) RCT 1+	1,801	Suicidal ideation	Collaborative Care
Alexopoulos et al., 2009, Bruce et al., 2004 (232, 233), RCT 1+	599	Suicidal ideation	Collaborative Care
Chan et al., 2011 (556) Case series, 3	351	Suicide rate	Combined depression treatment, key figure or gatekeeper training and monitoring

RCT: Randomised clinical trial

Source: Prepared by authors.

10.3. Prevention of suicidal behaviour in other risk groups

10.3.1. Patients with high dependency or serious somatic illness

Loss of health can be a trigger for suicidal behaviour, particularly if accompanied by chronic pain, disability or a negative prognosis of the disease (38, 499). Other factors to consider are whether the disease causes disfigurement or if there is comorbidity with mental disorders, especially depression (36, 499, 557). These conditions can also increase impulsivity, aggression or hostility (499, 558-560) and there may be an increased risk of suicidal behaviour. There is a linear relationship between the number of physical problems and suicide risk (561).

In *post-mortem* studies, there is great variability in determining the proportion of people who suffer from some type of somatic condition when committing suicide. Most authors acknowledge that suicide is rare in the absence of a mental disorder (557, 562).

Chronic disease

Chronic disease usually involves a modification of the patient's lifestyle and a social burden, both from an economic standpoint and from the perspective of dependency and disability of the subject.

Some studies show that chronic disease may be a risk factor for depression (535, 563, 564), which could increase suicidal ideation and attempts (565); this often happens with no history of previous attempts (153). In addition, physical disability and pain are significantly associated with suicidal ideation, regardless of the treatment variables and depression (54).

Therefore, the physician needs to monitor these patients especially to identify any possible early suicidal behaviour (561, 563, 564).

SR of different types of studies 2++
Case series
3

Chronic pain

Patients with chronic pain are at greater risk of depression than the general population, so one might expect that these patients present higher rates of suicidal ideation and attempted and completed suicides (50, 566).

Tang et al. (567) conducted a systematic review of prospective studies to identify suicide vulnerabilities in people with chronic pain. The population studied was people with chronic pain associated with poorer health, less quality of life and increased risk of major depression, with a 23 times higher prevalence of suicide observed than in the general population. Suicidal ideation was also three times higher among people with chronic pain compared to patients with non-chronic pain.

SR of
different
types of
studies
2+

Suicide risk factors in patients with chronic pain were:

- Location and type of pain: People with back pain and generalised pain were associated with an increased suicide risk compared to those without pain. Patients having migraine with aura had twice the attempted suicide rate of those with migraine without aura; and chronic abdominal pain was associated with increased suicidal ideation compared to neuropathic pain.
- Duration: The longer the duration, the more likely suicidal ideation is seen.
- Presence of comorbid insomnia: This was a significant discriminator for evaluating the presence or absence of suicidal ideation in patients with chronic pain.
- Intensity: Studies were inconclusive on this issue.

The authors emphasized the need for a risk assessment of suicidal behaviour in patients with chronic pain and further studies to investigate the role of risk factors to implement interventions to minimise this risk.

Studies subsequent to this review (567) support the need for specific monitoring of suicidality and specific treatments that reduce the risk of suicide in people with chronic pain (529, 535, 568-570).

Case Control
study
2+
Case series
3

Physical disability

Physical disability (a deficiency affecting a bodily structure or function) appears as a result of disease. It substantially limits one or more major life activities (571) and is considered a risk factor for suicidal behaviour (572). Table 56 summarises the studies found from the literature search.

Previous studies agree on the relationship between physical disability and suicidal behaviour and support the need for psychopathological assessment of people with physical disabilities, as the presence of comorbid depressive symptoms is an important factor in this relationship. Finally, the authors recommend establishing prevention programmes for the patients and training for physicians who care of them (572-579).

SR of
different
types of
studies 2+
Case series
3

Table 56. Features of studies included on physical disability and suicide

Author, year (reference); Type of study, Evidence level	Objectives	Results
Kishi et al., 2001 (573); Case series, 3	To evaluate the relationship between clinical features and suicidal ideation in patients with severe physical illness. The study included patients with stroke, traumatic brain injury, myocardial infarction and spinal cord injury (n = 496).	7.3% of patients with severe physical illness had suicidal ideation, especially those with major depression. Suicidal ideation decreased after an improvement in depressive disorder.
Kaplan et al.2007 (574); Cross-sectional study, 3	To evaluate whether chronic disease or functional limitation may be predictors of suicidal behaviour. Performed with data collected from 1986 to 1994 for the National Health Survey (356, 845 surveys).	Functional limitations appear to be a significant predictor of suicide, although chronic diseases alone were not.
Everett et al.2008 (575); Case series, 3	To evaluate the relationship between physical disabilities or long-term health problems and a number of health risk behaviours, including suicide attempts (survey of 9,324 students).	Students with physical disabilities or health problems described their health as poor and had increased health risk behaviour, e.g. suicidal ideation.
Gadalla et al.2008 (576); Case series, 3	To assess physical short-term disability, limitation on daily living activities and suicidal ideation in people with physical illness with or without comorbid mood disorders.	People with physical disability and mood disorder had greater needs for assistance in daily tasks and showed increased suicidal ideation.
Zochling et al.2008 (577); Expert opinion, 4	To evaluate the cause of mortality in patients with ankylosing spondylitis.	Violent deaths, including those secondary to accident and suicide, were almost double that of the general population. The results showed a lack of psychological adjustment and high alcohol consumption.
Juriscic et al., 2009 (578); Case series, 3	To analyse the psychological consequences of an accident (survey of 50 people).	Patients with physical disabilities reported negative thoughts, suicidal ideation, planning and attempts, regardless of the type of disability presented. People with a family history of suicide or attempted suicide were more likely to plan suicide.
Dennis et al.2009 (579), Case series, 3	To investigate the relationship between suicidal ideation and health problems and physical disabilities (survey of 8,580 adults).	Existence of association between limitations to daily living activities and suicidal ideation.
Giannini et al.2010 (572); SR of different types of studies, 2+	To investigate risk factors for suicide in people with disabilities (intellectual, spinal cord injury or multiple sclerosis).	Suicide rates were significantly higher among people with multiple sclerosis or spinal cord injury than in the general population. In both, depression was seen as the best indicator of suicidal ideation.

Source: Prepared by authors.

Other diseases and suicidal behaviour

Not all diseases have been investigated for their relationship with suicide; however, in some diseases an increased risk of suicidal behaviour is seen, not because of the disease itself, but because of the symptoms or disabilities expected by the patient. For example, patients with cancer are at increased risk of suicidal behaviour as it is still associated with death, pain, poor prognosis and prolonged treatment (50, 54, 574). While with AIDS, a 2011 review found that HIV patients had high rates of suicidal behaviour requiring routine surveillance and monitoring as fundamental aspects of clinical care (55). However, given the favourable clinical outcome since the introduction of antiretroviral drugs in 1996, the suicide mortality rate has decreased significantly (56).

In both diseases, the risk is higher at the time of diagnosis and during the first years of evolution (50, 499), and an advanced stage or poor prognosis significantly increases the risk of suicide (50, 580).

The *New York State Department of Health* (581) made a number of recommendations on how to act with a patient with AIDS who presented suicidal behaviour, some of which could be applicable to any population with a suicide risk:

Expert
opinion
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- Assess depressive symptoms and specific risk factors for suicidal behaviour
- Assess suicidal and/or violent behaviour at baseline and at least annually, as part of the mental health assessment
- Try to involve friends and family in treatment planning and development
- After identifying patients with suicidal ideation or violent behaviour, discuss the reasons with them and develop a plan to modify the risk factors.

In summary, patients with chronic disease (561, 563, 564), chronic pain (567-570) or physical disability (572-579) and those with certain specific diseases, such as cancer (54) or AIDS (55), need special evaluation and monitoring to identify potential suicidal behaviour.

10.3.2. Patient Carers

The most common profile of the caregiver is a woman (wife or daughter of a dependent) or housewife who lives with and looks after the patient for several hours a day, every day of the week. Most of the time, these tasks and responsibilities are performed without any financial compensation for their work (582).

An important group of carers is the over-65s, usually spouses, and of special importance due to the high comorbidity they usually present (582). The task of caring often leads to the emergence of a wide variety of physical, emotional, social, economic, family or working problems, and constitute a real “caregiver syndrome” which needs to be understood, diagnosed and treated (583).

There is little literature on the prevalence of suicide among carers of the chronically ill or dependent, but there is information about depression or anxiety in this population; and of course major depression is the most common mental disorder associated with suicidal behaviour (40).

A systematic review (584) of interventions aimed at reducing the symptoms of carers of dependents found that interventions with the active participation of carers and those based on CBT and focused on anxiety (585, 586), depression (586-592) and overload (592-595) were more effective than those whose content focused exclusively on the acquisition of knowledge (584). SR of studies
2+

Another study, not included in the previous review, also found positive results in the management of stress for carers of older people with dementia, stroke or physical disabilities, via intervention in group format that included information about different diseases, stress, problem-solving techniques and relaxation (596). Case Control
study
2+

There is little information about other types of violence, such as murder-suicide, in which relatives, usually husbands threaten the life of the dependent person and then attempt or commit suicide (597). Risk factors for murder-suicide are feelings of helplessness, hopelessness and exhaustion held by the carer, coupled with the inability to improve the situation (597).

The authors consider it necessary to perform a risk assessment of older carers with symptoms of depression, when there is evidence of domestic disputes (e.g. divorce, domestic violence or separation), a history of suicidal ideation or violent behaviour (36, 597). It must also be remembered that most of the attackers visit their doctor in the month or week before carrying out the violent act (597).

10.3.3. Risk of suicide due to employment type or status

Type of work

The WHO defines a worker at risk of suicide as “the result of a complex interaction between individual vulnerabilities, stressful working conditions and stressful life conditions”. Suicide prevention among workers should be addressed through the following (324): Expert
opinion
4

- Reduction of stress at work
- Destigmatisation of mental health problems and seeking help
- Early recognition and detection of emotional difficulties
- Appropriate intervention and treatment.

The aim of a prevention programme is to create a respectful, non-stressful workplace that facilitates social relationships, provide a positive corporate identity and at the same time enhances the worker as an individual. These strategies can be performed in both small and large companies (324).

Certain professions have a higher suicide risk than others, and it is believed that easy access to the means and specific circumstances, such as pressure at work, financial difficulties or social isolation, may be the explanation for this higher rate of suicide; although the cause has not yet been established (499). According to the WHO, the immediate availability of a method is an important factor in determining whether a person commits suicide or not, so it is necessary to reduce access to the means as an effective strategy in preventing suicide (190).

As with diseases, not all professions have been studied in relation to suicidal behaviour, which may lead to an overestimation in some of them. Thus, most studies refer to health professionals, including medical students (250, 560, 598 602) or police officers, fire-fighters and military (560 603 607).

SR of
different
study types
2+

The factors considered as risk factors for physicians are easy access to lethal means, excessive working hours, demands from patients, refusal to ask for help (250) and burn-out (600). In both the medical profession and the police, women have a higher suicide rate than men (250, 598, 607). The authors of these studies consider it necessary to take preventive measures to reduce access to lethal means and to promote health among workers.

Case Control
study
2+
Case series
3

There are 2 studies evaluating suicide prevention programmes in the workplace: the first is a systematic review that includes a number of sites, such as schools, medical centres and prisons (606); while the second is a programme carried out in the US Air Force (604). The common points of these programmes are:

SR of studies
2+
Quasi-
experimental
study
3

- Education and training on suicide for all employees, directors and managers
- Development of a proper relationship between workers and health personnel. Assessment interviews in times of increased stress.
- Cooperation between internal and external resources (company doctor and general practitioner or mental health services)
- Improvement in staff management, health care, screening and care for people at high risk
- Evaluation of programmes via factors associated with suicide, undesirable attitudes, knowledge of mental health and coping skills.

The results obtained by the air force prevention programme showed that it is possible to reduce the suicide rate by their implementation (604).

Unemployment

Unemployment is an important risk factor for suicide, mainly for people in the 35-45 years age group, those who drink alcohol, people with personality disorders and those who have lost their jobs recently (38, 50). There is also an inverse relationship between socioeconomic status and residence area and suicide rates, such that areas with higher unemployment and lower educational level have higher rates of suicide (608). Moreover, fighting unemployment can reduce suicide rates among the unemployed and workers who feel insecure in the labour market (560).

It has been estimated that the risk of suicide among the unemployed is 23 times higher than those with a job. In addition, the risk of suicide increases as the period of unemployment lengthens to up to two years, while after 4 years the risk remains or decreases in men, but continues increasing in women (36).

SR of
different
study types
2+, 3

The APA guide stresses the importance of determining the employment status of individuals as part of the suicide risk assessment. Other stressful situations should also be considered, such as loss of employment, economic and marital difficulties or having a mental disorder or alcohol or substance abuse (36).

A recent study (609) analysed suicide rates from 1928-2007 and found that suicides increase or decrease according to economic cycles, primarily among people of working age. Economic problems can impact on how people feel about themselves and their social relationships.

Expert
opinion
4

In these circumstances, some prevention strategies are (609):

- Providing social support for those who lose their jobs
- Increasing the degree of social integration
- Increasing access to mental health services.

Working for large companies

The existence of suicide clusters in large companies suggests the need for prevention plans. The WHO recommends that suicide prevention must be addressed in large companies by developing a strong occupational health infrastructure, including support programmes for workers and better access to health services (324).

Expert
opinion
4

Although there were no specific studies on the subject, suicides in large firms tend to be associated with factors such as workflow, staff relocations and restructurings or mass redundancies.

Psychological and sexual harassment in the workplace

Bullying or psychological harassment in companies is to the detriment of the health of the workers concerned and leads to progressive psychological deterioration that can result in sick leave (610).

The 2001 Cisneros Report on psychological and moral harassment at work indicated that over 15% of active workers surveyed reported being harassed or experiencing bullying in the previous 6 months. However, the number of workers who suffer this harassment could be higher, since many of them are reluctant to report it, either for fear of losing the job, due to the difficulty of being able to prove it or because they fear they will not receive support from their superiors (611).

Some studies show that bullying can be a risk factor for depression, anxiety and stress, which may increase suicidal behaviour in these individuals (53, 612-615). For example, 10-20% of individuals who commit suicide each year in Sweden have a history of psychological harassment at work (613). These workers may have somatisation illness, such as headaches, tachycardia, sleep or gastrointestinal disorders among others, or psychological symptoms such as mood disorders and anxiety (616-618), which affect their social life (612-614).

Case series
3

Several studies have found an association between bullying and suicidal ideation, and conclude that preventive programmes are needed and special attention must be paid to anyone who complains or suffers psychological harassment at work (53, 612-615).

Sexual harassment can occur in two ways (619):

- *Quid pro quo*, when the victim is conditioned with a profit
- Hostile work environment, in which the victim is intimidated or humiliated.

The consequences of sexual harassment for the victim are severe, causing psychological distress, behavioural changes (isolation and impaired social relationships), physical illnesses caused by stress, substance abuse, neglect of work and, on occasions, leading to suicide (620).

Expert opinion
4

For example, it was found that of 32 women who experienced sexual harassment, all suffered depressive and anxiety symptoms, 7 suffered major depression and 3 attempted suicide (621).

Case series
3

10.3.4. Persons who suffer domestic violence

Domestic violence is associated with a higher rate of suicide ideation and attempts, and is 4-8 times higher in those who have suffered it than those who have not (36). This not only includes the impact of the traumatic event, such as death or an unwanted pregnancy, it also includes long-term physical or mental problems, such as depression, post-traumatic stress disorder, somatisation, substance abuse and suicide (59, 615, 622).

SR of different study types
3
Case series
3

Victims of domestic violence are primarily children, spouses/partners and the elderly. Although there is some violence by women against men, women are between 7 and 14 times more likely to suffer serious physical injury by an intimate partner (615).

SR of different study types
3

It is believed that up to 25% of women experience some form of domestic violence during their lifetime (53), with the possibility of suffering some mental disorder being twice that of those who have not suffered it (623, 624). Pregnant women are particularly susceptible to abuse, with rates ranging from 11% to 21%, they have more emotional problems and up to 20% of them have attempted suicide (624).

SR of different study types 2+, 3
Case series 3

It has also been found that there is a suicide risk for the offenders or those who observe domestic violence (36, 60). Data from 2010 showed that in Spain, after threatening their partner, the assailants made an attempted suicide in 22% of cases and completed suicide in 16% (60).

SR of different study types 2+, 3

The studies on this issue focus on the factors associated with suicidal behaviour in people who suffer domestic violence; with the majority being women (36, 59, 625) and adolescents (36, 622, 623). Table 57 summarises the most relevant studies found in the literature search.

Case Control study 2+
Case series 3

Table 57. Features of studies included on domestic violence and suicide

Author, year (reference); Type of study, Evidence level	Objectives/population	Results
Golding, 1999 (59); Meta-analysis 2++	To review the evidence on the prevalence of mental disorders in female victims of gender violence.	It included 13 studies of suicidal behaviour in battered women, with prevalence rates between 4.6% and 77% and a weighted average of 17.9%.
APA Guide, 2003 (36); CPG 2+, 3	---	It was found that domestic violence was associated with an increased risk of suicide attempts in people who suffer it, individuals who carry out the violence and those who observe it.
Renner et al., 2009 (625); Case series 3	To investigate factors associated with suicidal ideation among battered women in relationships.	43% of the women had suicidal ideation associated with sexual or physical abuse in childhood, or when the history of abuse in the relationship was less than 12 months.
Espinoza-Gomez et al., 2010, (623); Case-control study 2+	To estimate the degree of association between domestic violence (verbal, physical and sexual) and suicidal behaviour in university adolescents.	There was a statistically significant association between violence and suicidal behaviour. It was also found that women reported significantly more physical, verbal and especially sexual violence than men.

Source: Prepared by authors.

The previous studies found an association between domestic violence and suicidal behaviour, and highlight the need to develop prevention programmes or to give special attention to all these people, usually women, who have suffered or are suffering domestic violence (59, 623, 625).

Meta-analysis
2++
Case-control
study
2+

10.3.5. Prison population

Suicide is often the most common cause of death in prisons, with rates 7.5 times higher (for those awaiting trial in prison) and 6 times higher (for those convicted of a crime in prison) than the general population (323); with women prisoners being more at risk than men (73).

SR of
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3

The risk of suicide in this population increases with the following environmental and individual factors (323):

- The prisons are repositories for people at high risk of suicide (people with mental disorders, young people, those with substance or alcohol abuse and/or social isolation)
- Psychological impact of arrest and detention
- Failure to identify an individual at risk
- Lack of mental health personnel

Expert
opinion
4

The prison population with the most risk of suicidal behaviour is young inmates for a first offence, who are Caucasian, unmarried and indulge in abuse of toxic substances (73). Suicidal behaviour may be higher after the following have occurred: admission to prison, legal complications, bad family news, sexual abuse or other trauma (36, 323).

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Since 1988, the Spanish prison administration has maintained specific programmes aimed at the detection and prevention of suicidal behaviour in all establishments, according to Article 3.4 of the Prison Act which states that “the Correctional Institution must ensure the life, integrity and health of the inmates”(626).

The WHO document on suicide prevention in prisons and jails, published in 2007 (323) and updated the same year by Konrad et al. (451) concluded that, despite existing programmes lacking the ability to reliably predict the time of suicide, prison and health personnel are better able to identify, assess and treat the potentially suicidal behaviour of inmates.

Expert
opinion
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Although not all inmate population suicides are preventable, a significant reduction in them can be achieved with comprehensive prevention programmes (36, 323, 627). Table 58 shows the most important aspects of the various suicide prevention programmes in prisons found in the literature search.

Table 58. Main features of suicide prevention programmes in the prison population

APA Guide, 2003 (36)	Suicide prevention programme framework. Treatment, health and monitoring; 2005 (626)	Konrad et al., 2007 (451). Updating the WHO recommendations (323)	Pompili et al., 2009 (627)
<ul style="list-style-type: none"> - Training of staff - Identification of subjects at risk - Monitoring - Evaluation - Inspection of the cell - Communication 	<ul style="list-style-type: none"> - Assessment of suicide risk at admission - Detection (responsibility of the entire prison staff and is associated with the adoption of provisional measures) - Assessment of the inclusion of the prisoner in the suicide prevention programme 	<ul style="list-style-type: none"> - Training of staff - Screening procedure on arrival and monitoring - Communication between staff - Encouraging a good social atmosphere, minimising violence and stress, maximising supportive relationships between prisoners and staff 	<ul style="list-style-type: none"> - Training of staff - Subject selection procedures - Communication between staff - Case documentation
<ul style="list-style-type: none"> - Intervention - Notification - Reporting 	<ul style="list-style-type: none"> - Diffusion between staff and collaboration with the "internal support" group <ul style="list-style-type: none"> • Actions to improve system • Training of staff • Culture of intervention, increased activities • Improve the information coordination system • Coordination between staff (monitoring, treatment, health) 	<ul style="list-style-type: none"> - Written procedure describing the minimum cell requirements for high-risk individuals (e.g. social support, routine inspections and observation) - Detecting and monitoring of inmates with mental disorders, and developing internal or external mental health resources - Strategy for questioning. - Treatment of suicide attempts - Management of suicide attempts considered manipulative - Improved prevention activities after a suicide (cluster suicide risk) 	<ul style="list-style-type: none"> - Internal resources - Reports after a suicide.

Source: Prepared by authors.

Evidence summary

Suicidal behaviour in childhood and adolescence	
<i>Risk and protective factors</i>	
<p>2++</p> <p>2+</p> <p>3</p>	<p>The risk factors most associated with suicidal behaviour in children and adolescents are:</p> <ul style="list-style-type: none"> – Being of adolescent age (343) – Being male (343, 458, 459) – Depression (243, 343, 460, 461), substance abuse and other mental disorders (343, 462-468) – Psychological factors: cognitive variables, impulsivity, emotional inhibition, problem-solving difficulties and insecure attachment pattern in infancy (343, 469, 471-473) – Previous suicide attempt (343) – Genetic and biological factors (51, 343) – Family and contextual factors: parental psychopathology (343), family conflict or domestic violence (343, 474), stressful life events (343), bullying (343 475-477) and cyberbullying (475, 478), exposure to suicide cases (343, 460), bad relations with peer group (460, 479) – Sexual orientation: homosexuality (460, 481), bisexuality (480) – Physical abuse and sexual abuse (343, 482, 483)
<p>2++</p> <p>2+</p>	<p>Some risk factors that may result in suicidal behaviour in this age group and act as precipitating factors are:</p> <ul style="list-style-type: none"> – Stressful life events (343, 484) – Crisis with parents/family conflicts (343, 484) – Psychological/personal factors (484) – Problems with peer group (343) – Difficulties in school (343).
<p>2++</p> <p>2+</p>	<p>Protective factors associated with a reduced risk of suicide in children and adolescents are:</p> <ul style="list-style-type: none"> – High family cohesion and low conflict levels (343, 345, 486) – Problem-solving skills and coping strategies (343, 486) – Positive values and attitudes, particularly against suicide (343, 486) – Being female (78, 486) – Religious or spiritual beliefs (343) – Ability to structure reasons to live (486) – Medium-high educational level (343) – Internal locus of control, high self-esteem, high intelligence and appropriate support systems and resources (78).

<i>Identification and evaluation of suicide risk</i>	
3	<p>Assessment of suicide risk in children and adolescents requires an extensive psychopathological and social assessment (343).</p> <p>This assessment must be extended to people close to the subjects (parents or teachers), due to the need to contextualise and compare the information provided by the children with that provided by adults, as it may be different (343).</p>
1+ 3	<p>There is no evidence that the evaluation of the presence of suicidal ideation or behaviour increases the risk of suicide or upsets adolescents. On the contrary, it helps to improve levels of anxiety as the adolescent feels better understood (430, 454).</p>
1+	<p>The psychopathological and social assessment accompanied by a cognitive intervention significantly increases commitment to the treatment at 3 months, compared with normal evaluation (487).</p>
<i>Psychometric instruments</i>	
2+ 3	<p>The scales demonstrating acceptable psychometric properties for assessing the risk of suicide in children and adolescents are:</p> <ul style="list-style-type: none"> – Risk of Suicide Questionnaire (RSQ; 628) – Beck Hopelessness Scale (BHS; 44, 80, 81) – Suicidal intent scale (SIS; 490) – Beck Depression Inventory (BDI; 86) – Kiddie Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS; 494) – Children Depression Rating Scale, Revised (CDRS-R; 496).
<i>Preventive interventions</i>	
<ul style="list-style-type: none"> • Interventions in schools 	
1+	<p>At the school level, universal prevention as part of the curriculum (3-5 school days) is associated with significant increases in the level of knowledge about suicide, better attitudes towards it and learning self-help behaviour. The <i>Signs of Suicide</i> programme has been associated with a significant decrease in suicide attempts. In it, students received information about depression and suicide warning signs, how to react to a person with these signs, as well as a screening for depression (416, 504).</p>
1+	<p>The <i>Personal Growth Class</i> programme compared the effectiveness of 3 interventions (1 semester of group activities, mood assessment, communication, improving self-esteem and decision-making and self-control; another group also had a semester of applying the skills learned; while a third group only had assessment). All 3 groups showed a significant decrease in suicide risk behaviours, depression, hopelessness, stress, aggression, as well as increased self-esteem and social network (505).</p>

1+	The Counsellors Care programme compared a 12-session intervention based on skills training with normal care. There were no differences between the groups in the reduction of suicidal behaviour, aggression or family stress. The skills training group had a significant increase in personal control, problem-solving skills and perceived family support (506).
1+	In patients at high risk of suicide, interpersonal therapy (10-12 sessions) was more effective than normal care (support and psychoeducation) in reducing levels of depression, suicidal ideation, anxiety and despair (234).
2++ 3	At present there is no evidence for the effectiveness of screening in the school environment. In addition, it is poorly accepted by staff because it is often perceived as an invasive technique (377, 417).
1+ 3	Studies of key figure programmes in schools have shown an increase in knowledge and attitudes towards suicide and the skills in identifying students at risk of suicide (377). Programmes directed at peer helpers have also not been adequately evaluated; thus there is no evidence of their effectiveness nor potential adverse effects (377).
<ul style="list-style-type: none"> Prevention in children and adolescents with mental disorders 	
3	Some areas for improvement in the management of suicide in childhood and adolescence are (377): <ul style="list-style-type: none"> – Conducting a thorough assessment of suicide risk to appraise the most beneficial treatment strategy – Paying particular attention to the presence of comorbidity – Regularly reviewing symptoms of depression, suicidal ideation and possible presence of stressful life events, as the risk of suicide may change during treatment – Coordination between the different care and professional levels during appropriate monitoring.
<ul style="list-style-type: none"> Other prevention strategies for suicidal behaviour 	
3	There is no evidence for the effectiveness of hotlines in suicide prevention in childhood and adolescence (377, 507).
2+ 3	Most studies on the control of access to suicide methods have been done in the US, where the restriction of access to weapons has decreased suicide rates, particularly in adolescents and young adults (377, 512).
3	The impact of the media on suicidal behaviour appears to increase in adolescence, and depends on the treatment of the information given about suicides (365, 513).
3	There is evidence of a relationship between visiting websites and chat rooms, where detailed information on methods of suicide is provided, and increased suicide in the young (365, 513).
3	Suicide prevention strategies would necessarily include regulation of Internet service providers and the use of filtering software by parents (365, 513).
4	It is important to have information on the Internet on suicide prevention specifically for adolescents and their families, and it should be based on scientific evidence (514).

Suicidal behaviour in the elderly	
<i>Risk and protective factors</i>	
<p>2++</p> <p>2+</p> <p>3</p>	<p>The risk factors most associated with suicidal behaviour in the elderly are:</p> <ul style="list-style-type: none"> – Previous suicide attempts and suicidal ideation (44, 515, 519, 522, 523) – Presence of mental disorder (particularly depression) and addictions (44, 53, 73, 344, 515, 519, 522, 525, 528, 529) – Presence of specific personality traits and disorders (especially in group A and B) (44, 522) – Chronic physical illness (44, 53, 73, 515, 522, 524, 533, 537) – Social isolation and stressful life events (44, 53, 73, 515, 522, 524, 533, 538) – Functional deficit (44).
2++	<p>Protective factors associated with a reduced risk of suicide in the elderly are (44):</p> <ul style="list-style-type: none"> – Healthy lifestyles – Contact with family and friends – No excessive drinking – Staying active – Religious practices and having a sense of purpose in life – Personality traits such as extraversion, openness to experience and responsibility.
3	<p>The protective factors associated with a decrease in suicidal ideation are (344):</p> <ul style="list-style-type: none"> – Internal locus of control – Perception of self-efficacy – Satisfaction with life.
3	<p>Other protective factors that might act indirectly, by increasing psychological wellbeing are (44):</p> <ul style="list-style-type: none"> – Perception of the meaning of life and satisfaction with it – Coping skills – Future orientation and spirituality.
<i>Detection and assessment of suicide risk</i>	
3	<p>The assessment of suicide risk in older people requires special attention to the circumstances and the person's environment, expectations, quality of life and the presence of mental or physical illness (44).</p>
<i>Psychometric instruments</i>	
<p>2+</p> <p>3</p>	<p>The scales with the best psychometric properties for assessing the risk of suicide in the elderly are:</p> <ul style="list-style-type: none"> – Beck's Scale for Suicide Ideation (SIS; 94) – Geriatric Depression Scale (GDS; 539) – Geriatric Hopelessness Scale (GHS) (540) – Reasons for Living Scale, Older Adult Version (RFL-OA; 541) – WHO-Five Well-Being Index (WHO-5-J; 542) – Brief Symptom Rating Scale (BSRS-5; 543).

<i>Preventive interventions</i>	
<ul style="list-style-type: none"> • Universal prevention measures: <ul style="list-style-type: none"> – <i>Training of professionals and educational measures</i> 	
3	<p>The training of personnel involved in the management of older people is essential. Some areas for this are (44):</p> <ul style="list-style-type: none"> – Identification of suicide-specific risk and protection factors – Evaluation and management of psychometric instruments for assessing suicide risk in the elderly – Intervention skills for suicide risk situations – Suicide risk management and monitoring.
Q	Contact with health professionals may be crucial in the prevention of suicide, as it promotes communication of suicidal ideation or intent and enables the establishment of appropriate measures (549).
3	To raise awareness and reduce the stigma of suicide, it is important to orient older people, their carers and the general public towards education, including the media (44).
<ul style="list-style-type: none"> – <i>Restricting access to lethal means</i> 	
3	One of the most common methods of attempting suicide in older people is drug poisoning. Other suicide methods used are hanging, drowning and jumping from height (551, 552).
3	Controlling access to potentially lethal means is fundamental to the prevention of suicide. Doctors can reduce the risk of overdose by prescribing smaller packs of drugs and monitoring their use (44).
<ul style="list-style-type: none"> • Selective prevention: <ul style="list-style-type: none"> – <i>Telephone helplines</i> 	
2+	Maintaining telephone contact twice a week and having a 24-hour emergency telephone service was associated with a significant decrease in the suicide rate in women, but not in men (553).
<ul style="list-style-type: none"> – <i>Community interventions</i> 	
2+	After implementing a community-based group intervention of psychoeducation and assessment of depression, a significant reduction of 76% in the suicide rate of women over 65 years was achieved, when compared with a reference area (554).
<ul style="list-style-type: none"> – <i>Promoting resilience</i> 	
3	IPT adapted to older patients (16 weekly sessions) managed a significant reduction in ideas of death, suicidal ideation and the severity of depression symptoms (352).
<ul style="list-style-type: none"> • Indicated prevention <ul style="list-style-type: none"> – <i>Depression screening and monitoring</i> 	
2++	Community interventions for depression screening (assessment + monitoring by a psychiatrist or primary care physician) reduced suicide rates significantly. Monitoring by the psychiatrist had better results in reducing the risk of suicide, especially in men (448, 449).

– Collaborative care	
1+	A study of a collaborative care intervention in the elderly with depression or dysthymia was performed. It was based on the incorporation of nurses and psychologists who conducted the assessment and psychoeducation. Treatment options were antidepressants or problem-solving therapy (4-8 sessions) and a follow-up (telephone or personal interview). Compared with the standard treatment (antidepressants, counselling and referral to mental health service), a significant reduction in suicidal ideation was obtained at 6, 12, 18 and 24 months (219, 555).
1+	A study in the elderly with depression and suicidal ideation compared the prescription of SSRI (citalopram) and/or IPT with standard treatment: a significant reduction in suicidal ideation at 12 months was achieved (232, 233).
– Clinical prevention programmes	
3	A prevention programme based on the combined treatment of depression, key figure training in the detection of risk (gatekeeper) and psychiatric-type, community-oriented follow-up after an attempted suicide obtained a significant reduction in the rate of suicides at 2 years, although a reduction in farther suicide attempts within the same period was not significant (556).

Suicidal behaviour in other risk groups	
<i>Patients with high dependency or serious somatic illness</i>	
2+ 3	Studies show an association between the presence of chronic pain and the risk of suicidal behaviour. Physical disability and pain may have an association with suicidal ideation without an associated depressive disorder (54, 153, 565).
2+	The evidence indicates that patients with chronic pain have a higher prevalence of suicide than the general population. Factors increasing the risk are the location, type and duration of pain and/or the presence of comorbid insomnia (567).
3	Different studies were found on the relationship between persons with physical disability and the presence of suicidal behaviour, which is higher when comorbid depressive symptoms are associated (572-574).
3	The studies show the need for the physician to monitor and evaluate people who have a chronic illness (561, 563, 564), pain (567-570), physical disability (572, 575-579) or who present a poor prognosis (54, 55).
3 4	In patients with severe disease, there is an increased risk of suicidal behaviour at the time of diagnosis, in the first year of the illness, when in an advanced stage and when it has a poor prognosis (50, 580).

<i>Carers of patients</i>	
4	Chronic illness and dependence affect the patient and also impact on the family, and especially the person who assumes the role of caregiver (583).
2+	There is evidence from different interventions aimed at decreasing the negative symptoms of the carer: active, CBT-based participation was more effective than that based only on the acquisition of knowledge (584); another effective intervention was in group format with problem-solving techniques and relaxation (596).
4	Little information and evidence on the risk factors for murder-suicide is given for caregivers. However, feelings of helplessness, hopelessness, exhaustion, coupled with the inability to improve the situation seem to be important (36, 597).
<i>Risk of suicide at work</i>	
2+ 3	Several studies address the relationship between the type of work and suicide, although some professions are more studied than others. Professionals with easy access to lethal methods, stress, excessive hours of work or refusal to ask for help are at increased risk of suicide (250, 560, 598-607).
2+	The suicide prevention programmes in workplaces must integrate aspects of education and training for workers, support services, cooperation between various bodies, programmes to improve personnel management and evaluation of the programmes (604, 606).
2+	There is evidence on the relationship between unemployment (38), financial difficulties (608, 609), social isolation and an increased risk of suicide (36, 609).
4	Other strategies for the prevention of suicidal behaviour are: determining the employment status of individuals as part of the assessment process; providing social support to the unemployed; and increasing the degree of social integration (560, 609).
3	There appears to be an association between suicidal ideation and harassment at work, or bullying. In addition, workers who suffer bullying often have somatisation, such as headaches, palpitations, sleep disorders or gastrointestinal disorders (616-618). Harassment can also cause conflicts in everyday life outside of work (612-614).
3 4	Sexual harassment at work is associated with behavioural changes, physical illness, substance abuse, abandoning work, depressive symptoms, anxiety and suicidal behaviour (620, 621).
<i>People who suffer domestic violence</i>	
3	Information on the association of suicidal ideation and behaviour in people suffering domestic violence is scarce or of poor quality. However, rates of suicidal ideation and suicide attempts are 4-8 times higher than in the general population (36, 53).
2++ 2+	The studies found focus mostly on women (59, 625) and adolescents (623). People suffering from this type of violence may have suicidal ideation within a context of post-traumatic stress or depression. The association found between domestic violence and suicidal behaviour means it is necessary to implement prevention programmes and special monitoring for all victims.

Prison population	
4	People in prison have between 6 and 7 times a greater risk of suicide than the general population. This increase is due, among other factors, to a higher percentage of the prison population having mental disorders, substance abuse problems or social isolation (323).
4	The risk of suicide in the prison population increases just after admission, in young people after their first offence, in people with substance abuse and where there are legal or family problems (36, 73, 323).
3 4	Prevention programmes can significantly reduce the number of suicides in prison. All programmes have the following in common: staff training, identification and monitoring of subjects at risk, communication between staff, use of internal resources as “internal support” and reports after a suicide (451, 626, 627).

Recommendations

Suicidal behaviour in children and adolescents	
D^{CPG}	Children and adolescents with presence of risk factors for suicidal behaviour are recommended to undergo a comprehensive psychopathological and social assessment. The evaluation must follow the same principles as in adults, while considering the particular psychopathological aspects of childhood and adolescence, and paying special attention to the family and the social situation.
C	To assess suicide risk in children or adolescents, it is recommended to ask directly about suicidal ideation or planning, past suicidal behaviour and other risk factors, as well as extend the evaluation to people close to the subjects (parents or teachers).
✓	The following scales are recommended for use in childhood and adolescence when being used to supplement the clinical interview: <ul style="list-style-type: none"> – Beck Hopelessness Scale (BHS) – Beck Depression Inventory (BDI) – Kiddie Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS) – Children Depression Rating Scale, Revised (CDRS-R).
C	Universal suicide prevention programmes, such as Signs of Suicide, are recommended to be implemented as part of the school curriculum, after being adapted and contextualised to the sociocultural environment.
C	Selective suicide prevention programmes, such as Personal Growth Class or Counsellors Care, are recommended for adolescents at risk of suicide, after being adapted and contextualised to the sociocultural environment.
C	There are insufficient data to recommend the use of suicide screening tools or programmes in schools.
D	The implementation of key figure training programmes (gatekeeper) for staff at educational institutions is recommended, to identify students at risk of suicide.

D	<p>The following is recommended to prevent suicidal behaviour in children and adolescents with mental disorders:</p> <ul style="list-style-type: none"> – Conducting a thorough assessment of suicide risk for the most beneficial treatment strategy in each case. – Paying particular attention to the presence of comorbidity. – Periodically assessing symptoms of depression, suicidal ideation and the possible presence of stressful life events. – Encouraging coordination among different levels of healthcare professionals to carry out appropriate monitoring.
✓	The treatment options recommended for assessment for suicidal behaviour in childhood and adolescence are psychotherapeutic, drug, combination therapy and in rare cases, electroconvulsive therapy.
✓	Guidelines should be provided for parents and/or carers on the control of direct access by children and adolescents to drugs, firearms or other potentially lethal means.
C	Clinicians are recommended take into account the pathological use or misuse of the Internet when assessing the risk of suicide, especially in adolescents and young adults.
D	Easily accessible information on suicidal behaviour and its prevention should be specifically prepared for adolescents and their families and offered on the Internet.
Suicidal behaviour in the elderly	
D	When assessing the risk of suicide in the elderly, it is especially recommended to check for the presence of depression, other illnesses, alcohol abuse or abuse of any other medication.
D	<p>It is also recommended to assess the environment, quality of life and expectations of the person:</p> <ul style="list-style-type: none"> – Who he lives with, the presence of support and social and family relationships – Ability to care for himself and to carry out daily living activities – Presence of hopelessness, patient attitude toward life and death.
C	The use of validated scales such as the Geriatric Depression Scale (GDS) is recommended when using scales to supplement the clinical interview in the older person.
D	Education about suicide is recommended for the elderly themselves, as well as their carers and the general public, including the media, to raise awareness and reduce stigma.
D	The doctor is recommended to prescribe drugs in smaller packs and monitor their use when dealing with patients with suicide risk factors.
C	Community support interventions are recommended for the elderly at risk of suicide: e.g. telephone lines, group activities and psychoeducation.
D^{CPG}	In general, the recommendations for adults when managing and treating suicidal behaviour should also be used for the older age groups.

Preventing suicidal behaviour in other risk groups	
✓	Persons with chronic illnesses and severe pain or physical disability are recommended to undergo preventive programmes and specific suicide risk assessments.
✓	It is recommended to perform a special monitoring of those patients with risk factors for suicide at the following times: when being diagnosed with a serious illness; when there is a poor prognosis of an illness; or when it is at an advanced stage.
✓	<p>General strategies for managing patients with chronic illness, physical disability or chronic pain should be carried out at three different levels:</p> <ul style="list-style-type: none"> – Universal: <ul style="list-style-type: none"> • Evaluate hopelessness and suicidal ideation • Monitor the warning signs that may increase the level of risk, such as depressive symptoms, substance abuse or a history of suicidal behaviour • Recognize that people may be at risk regardless of the time after the injury • Provide patients with the availability of long-term support – Selective: <ul style="list-style-type: none"> • Follow-up persons with comorbid psychiatric disorders – Indicated (presence of suicidal ideation and/or behaviour): <ul style="list-style-type: none"> • Reduce access to potentially lethal methods, including the possibility of more than one method • Provide treatment, support and monitoring for at least 12 months after a suicide attempt • Encourage the participation of friends and family in the treatment planning and development.
D	A suicide risk assessment is recommended in carers with depressive symptoms.
C	Carers with anxiety, depression and overload are recommended to undergo cognitive-behavioural type interventions to reduce the risk of suicide.
C	Health promotion programmes are recommended in the workplace to offer support and advice to workers and to increase the degree of integration and access to prevention services.
D	It is recommended to evaluate the employment situation of people at risk of suicide.
C	Suicide prevention programmes involving special care are recommended for victims of domestic violence.
D	Suicide prevention programmes are recommended in prisons for both personnel and inmates.

11. Interventions for family, friends and professionals after a suicide

Key questions:

- What are the needs and expectations of the relatives after a suicide?
- After the suicide of a person, is there any preventive intervention to reduce the impact on their family and friends?
- Are there any preventive community interventions after a suicide?
- Are there any interventions after the suicide of a patient to reduce the impact on the professionals involved in managing it?

11.1. Needs and expectations of family and friends after a suicide

The term suicide survivor was traditionally used to refer to a close family member of the person who had committed suicide, but now has spread to include the friends and wider family (partner, friends, co-workers, classmates or neighbours) (629).

Death from suicide has a tremendous impact on families and friends: as well as the emotional loss, there is an increased risk of disorders such as depression or post-traumatic stress disorder (247), and an increase of 2-10 times in the risk of their own suicide, when compared with the general population (630).

There are some differences between the bereavement after a suicide and that of another death that can complicate or prolong it over time and which places families and friends at risk. Some underlying factors that could explain this difference include the stigma and emotional implications that suicide has on those close to the victim, such as feelings of guilt and the search for an explanation for the suicide (247, 631).

A systematic review of quantitative and qualitative studies that focus on the needs and expectations of the family and friends of a person who has committed suicide was published recently (629). It found 3 main areas towards where efforts and measures should be directed:

- **Peer support:** Close friends require different types of interventions than the peer group, such as support groups with others who are going through the same situation, or individual initiatives. Such interventions are perceived as a safe and confidential environment where people can express themselves freely and provide expertise. Most people in this situation like to meet others who have had the same experience.
- **Social support:** The support received from family, friends, classmates or workmates and neighbours is important following a suicide. It helps to bring daily life back to normal by incorporating everyday activities. What is needed for this type of support is practical, day-to-day help, as well as their presence and availability.

- Professional help: This kind of help is the most demanded (the perceived need for professional help is 9 times higher than in other types of bereavement). Although some people feel that they can cope without professional help, others declare the existence of various barriers preventing them from receiving the professional help desired. This support must be offered quickly and not necessarily be demanded by the person himself. The areas in which special emphasis should be placed are: Providing the information required in these circumstances (on suicide, the grief process and how the death can affect the family), providing different types of help, offering specific treatments in childhood and adolescence and carrying out long-term monitoring.

Some key aspects to consider for the implementation of such programmes are (629):

- Contextualising intervention strategies after a suicide in different cultures
- Taking into account the effect of the stigma attached
- Considering the needs and expectations of the people involved.

One of the studies in this review investigated the bereavement of parents whose children had committed suicide (16 mothers and 6 fathers) and revealed a conflict between the need to talk about the suicide freely and the perceived social stigma, which is why these parents had less social support, which is considered crucial in times of mourning (632).

Qualitative
study
Q

Another study focused on the needs and experiences of adolescents who had overcome the suicide of someone close and showed that good care should include: providing immediate help after the suicide, adapting to the needs of the individual and providing support over time. For teenagers, this care must also be flexible, empathetic and provide for the possibility of participating in individual sessions (633). The study emphasizes the negative impact of teenage suicide and the potential difficulties in school and impaired concentration (634).

Qualitative
study
Q

11.2. Preventive interventions in families and friends

Postvention or interventions after a suicide are those activities performed with friends and relatives to prevent negative effects following the event, including their own suicide. Normally, they are aimed at reducing the impact that the suicide may have, but they do not focus on the treatment of suicidal behaviour itself (for people who attempted suicide) (635).

The interventions are very important because, on the one hand, they provide the necessary support for a state of mourning that can become pathological (due to the presence of other factors such as the stigma, the risk of depression or post-traumatic stress disorder, feelings of abandonment and the search for reasons for the suicide); while, on the other, they constitute a suicide prevention intervention in themselves (630).

Postvention must be performed from the early stages of grief and psychotherapeutic work with families may include the following aspects (342):

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- Confronting the reality of guilt towards oneself and to others
- Helping correct the denials and distortions
- Exploring family thoughts about how the death will affect them in the future
- Working with the anger and rage that this type of death causes
- Confronting the feelings of abandonment with reality.

Family interventions

Several studies of family interventions after a suicide have been conducted (636), aimed at couples (637, 638), parents (639) and children (640), although they are more often carried out with adults. There is a wide variety of professional help performing the procedure:

SR of
different
study types
1+, 2+, 3

- Crisis intervention teams (641)
- Volunteers (642)
- Mental health nursing personnel (637, 638)
- Clinical psychologists (640)
- Multidisciplinary teams (639).

The studies included evaluating the short-term effect (after the intervention), with only 1 of them performing a 12 months follow-up (638).

Table 59 summarises the main features of the studies of families included in the systematic reviews by Szumilas et al. (636) and McDaid et al. (643).

These studies found the interventions significantly improved the following:

SR of
different
study types
1+, 2+, 3

- Symptoms of depression, both short (637, 640) and long-term (638)
- Anxiety, also both short and long-term (637, 640)
- Short-term (637) and long-term (638) psychological factors: social functioning, grief, somatisation, obsessive-compulsive symptoms, interpersonal functioning, anxiety, hostility, paranoid ideation and psychoticism.
- Reduced short-term distress (639)
- Evolution of the grief (at 6 months (639) and 12 months (638))
- Satisfaction with participation in therapy (641, 642, 644).

Table 59. Features of family intervention studies included

Author, year (reference) Study type	N ^o	Intervention	Variables	Duration/ Sessions
Rogers et al., 1982 (642) Pre-post study	53	Structured family support programme after a suicide.	Symptoms Satisfaction	8 weeks: 2h/week + 4 sessions/2 weeks.
Battle, 1984 (641) Case series	36	Support groups	Number of sessions, reasons for abandoning therapy	4 months: 1.5h/week + 4 months: 1.5h/2 weeks
Farberow, 1992 (644) Controlled study	82	Group discussions and bibliotherapy vs no treatment	Feelings, Satisfaction	8 weeks 1.5 h/week + optional monthly sessions.
Constantino and Bricker, 1996 (637) RCT	32	Group support (emphasising Yalom's 12 therapeutic factors) vs social groups (promoting socialisation and leisure).	Depression Symptoms Social functioning Bereavement	8 weeks: 1.5h/week.
Murphy et al. 1998 (639) RCT	261	Group sessions + Psychoeducational sessions + Skills training vs normal care.	Distress Post-traumatic Stress Bereavement Health status Marital role strain	12 weeks 2 hours/week.
Constantino et al., 2001 (638) RCT	60	Group support sessions (emphasising Yalom's 12 therapeutic factors) vs social groups (promoting socialisation and leisure).	Depression Symptoms Social functioning Bereavement	8 weeks: 1.5h/week.
Pfeffer et al., 2002 (640) Controlled study	75 (52 families)	Group intervention vs no treatment.	Post-traumatic stress Depression Anxiety Social functioning.	10 weeks 1.4h/week.
De Groot et al. 2007 (645) RCT	134 (74 families)	CBT vs normal care.	Complicated grief Depression Suicidal ideation Guilt over suicide.	4 x 2 hour sessions.
Cerel and Campbell, 2008 (646) Case-control study	397	Intervention at the scene of the suicide (providing comfort, explanation of protocols, providing information) vs. passive intervention (where the patient requests the care).	Time elapsed from death to the intervention Attendance and involvement in group sessions Appetite, exercise, sleep and concentration. Suicidal ideation.	1 session

CBT: cognitive behavioural therapy; No: Number of participants; RCT: randomised clinical trial.

Source: Compiled from data from Szumilas et al. (636) and McDaid et al. (643).

The interventions performed at the scene of the suicide were associated with a significant increase in self-help behaviour for friends and relatives and greater participation in support therapies (646). One of the studies found higher levels of depression and confusion among the participants of the intervention group, although there was a reduction in the severity of grief and feelings of guilt (644).

The McDaid (643) review included a clinical trial using a CBT intervention for first-degree relatives compared with normal treatment. The intervention consisted of 4 CBT sessions conducted by mental health nurses 3-6 months after the suicide. At 13 months after the death, no significant differences were found between groups in complicated grief reactions, the presence of depression or suicidal ideation. However, the group that received CBT showed less maladaptive reactions and lower perceived culpability for the family suicidal behaviour (645). It was also found that people with suicidal ideation benefitted most from the treatment, and CBT reduced the risk of pathological grief in these people (647).

Interventions in schools after a suicide

Szumilas et al. (636) included 6 studies on interventions in schools in their review: counselling close friends (648, 649), postvention interventions (including *debriefing*) for the whole school (650, 651) and training of professionals (652, 653; see Table 60).

SR of
different
study types
3

Two of the studies considered suicidal behaviour as an outcome variable, although no statistical analysis was provided (650, 651). In one study, the authors described a negative effect of the intervention, with 6 hospitalisations and 30 cases of suicidal behaviour (suicide gestures or attempts) 6 months after implementation (650).

SR of
different
study types
3

Hazell and Lewin (648) found no significant effect for group *counselling* of close friends. In the study performed by Sandor et al. 1994 (649), a significant increase in self-efficacy score was found, which was maintained at 2 months follow-up.

The professional training programmes, for both gatekeeper and crisis intervention, were associated with a significant increase in the level of knowledge about suicide (652, 653), and high levels of satisfaction and usefulness (652).

The McDaid et al. (643) review included a RCT comparing 2 interventions: a therapy based on writing about the loss and associated emotions, and another based on writing about trivial issues. A significant improvement in the experience was found in the group writing about the loss at 8 weeks, but no differences were found in other measured variables, such as perceived recovery, impact and non-routine visits to the health centre. However, it is worth noting that the group writing about the suicide showed less intensity of grief reaction at the start of the study (654).

SR of
different
study types
1+

Table 60. Features of school intervention studies included

Author, year (reference) Study type	NO	Intervention	Variables	Duration/ Sessions
Hazell and Lewin, 1993 (648) Case-Control study	126	Counselling groups of 20-30 people	Suicidal Behaviour Suicide Risk Suicidal ideation Drug use.	90 minutes
Sandor et al. 1994 (649) Comparative Descriptive analysis	15	Community support intervention	Social acceptance Competence at sport Physical appearance Competence at work Capacity of seduction Conduct/morality Self-efficacy.	2 hours of debriefing after the suicide and 2 sessions on consecutive days.
Grossman et al., 1995 (652) Field trial	400 carers (53 schools)	Professional training in response to crisis situations.	Changes in knowledge / skills Satisfaction Usefulness of training.	19 x 3 hour sessions over 1 year.
Callahan, 1996 (650) Case series	400	Postvention, including debriefing.	Suicide attempts. Deaths by suicide.	Unknown
Mackesy-Amiti et al. 1996 (653) Pre-Post study	205	Key figures or gate-keeper training	Knowledge level.	19 x 3 hour sessions over 4 months.
Kovac and Range, 2000 (654) RCT	42	Suicide-related writing therapy vs trivial writing.	Experience and grief recovery Impact Non-routine visits to the health centre.	2 weeks: 15 minutes/week.
Pojjula et al., 2001 (651) Quasi-experimental study	89	Debriefing	Incidence of suicide.	2 hours

No: Number of participants; RCT: Randomised clinical trial

Source: Compiled from data from Szumilas et al. (636) and McDaid et al. (643).

11.3. Community interventions

Various initiatives have been undertaken to prevent suicide at the community level; however, most have not been evaluated.

Szumilas et al. (636) included 2 studies of this type (Table 61). One of them described the results of a prevention programme that prepared guidelines for the media and for prevention campaigns in Vienna (Austria), after a number of suicides on the underground there. It found a decrease in the number of suicides in the study period (1980-1996) when compared with the number of suicides before the intervention (360). The other study described a prevention programme for the young conducted over 2 years in Maine (USA). This consisted of the implementation of a comprehensive community programme based on the *Centres for Disease Control and Prevention* recommendations to prevent suicide contagion (655). Although no clear conclusions could be drawn about their effects on suicide, these studies may be useful as examples of implementing suicide contagion prevention programmes (636).

SR of
different
study types
3

Another community intervention was held in Canada and was based on the comparison of 4 support groups, which lasted 2, 4, 6 and 12 months. There was an improvement in the Beck Depression Inventory 1 year after the intervention (with a smaller reduction in the inventory scores for the group whose intervention lasted 2 months). It is worth noting that this study did not take into account the drop-out rate of participants in the statistical analyses, and that the groups already showed differences in clinical variables at the start of the intervention. Also, no results could be attributed to the duration of the intervention only, because of the complexity of the factors involved in the support therapy, (Table 61) (656).

Case series
3

Table 61. Features of community intervention studies included

Author, year (reference) Study type	N ^o	Intervention	Variables	Duration/ Sessions
Etzersdorfer and Sonneck, 1998 (360) Prospective field trial	Unknown	Preparation of guidelines for the media.	Number of attempted and completed suicides on the underground.	Unknown
Seguin et al., 2004 (656) Observational study	69	Support groups of different durations.	Depression.	2, 4, 6 and 12 months
Hacker et al., 2008 (655) Field trial	Unknown	Support services in colleges and health system. Educational measures for media.	Number of suicide deaths.	2 years (2003-5)

No: Number of participants;

Source: Prepared by authors from Szumilas et al. (636).

In 2004, the Canadian Mental Health Association (CMHA) introduced a programme in Canada based on peer helpers who had experienced a close suicide. Participants were distributed in pairs by age, sex and relationship to the deceased. Although the sample size of this study was very small (7 patients and 9 volunteers), participants showed positive short-term results in their grief reaction (657).

Case series
3

11.4. Interventions for health personnel after the suicide of a patient

Health professionals often deal with patients with suicidal behaviour, both in the field of primary care and as specialists. The suicide of a patient always has a great impact, mainly when there has been a major therapeutic relationship, leading to severe distress in 3 out of every 10 professionals (658). However, research on the importance and needs of professionals in these situations is very limited.

Case series
3

The different phases experienced by personnel after the suicide of a patient, are as follows (659):

Expert opinion
4

- Phase 1 (Immediate): Shock
- Phase 2 (Intermediate): Anxiety, disquiet and feelings of guilt
- Phase 3 (Post-traumatic): Asking questions and self-doubt
- Phase 4 (Recovery): Renewal of trust.

Sometimes symptoms may include depression and post-traumatic stress disorder, aggression, feelings of grief and guilt, isolation, humiliation, low self-esteem and concern for the reaction of colleagues (243, 247).

Expert opinion
4

Among the most important factors linked to the onset of distress in personnel are issues related to the treatment plan, possible negative reactions from colleagues or managers and the possibility of legal implications from the case, especially if the patient was not hospitalised (660). No studies were found evaluating interventions specifically aimed at reducing the consequences of suicide in these groups.

Case series
3

Mental health professionals have shown that seeking support from their colleagues was the most useful strategy (661, 662) and that a review of the case provides an opportunity to improve the management of suicide and its impact (662, 663). It is also considered important to receive specific training on the management of suicide (664).

One group of particular interest is that of doctors in training, who are especially vulnerable to the appearance of distress after the suicide of a patient (663, 665). Although training programmes usually include modules on the management of suicidal behaviour (risk factors, recognition of warning signs and treatment), one study showed that only 19% of medical residents felt prepared to deal with the suicide of a patient (666).

A special case is that of hospitalised patients, in which survivors include not only family and close friends, but also unit patients and both health and non-health staff who knew the patient. Bartels (667) recommended that a meeting be called of all staff in the unit immediately after the suicide of a hospitalised patient, to report the suicide and to develop a strategy to support the other patients on the unit and contain potentially dangerous reactions, including imitation of the suicidal behaviour.

In terms of clinical practice guidelines, the necessary support for professionals (from colleagues, supervisors or managers) should be ensured (243, 317, 372), as well as the factors underlying the suicide be reviewed (243, 317). Specific training would also be useful in these situations (243, 372).

SR of
different
study types
3, 4

Evidence summary

Needs and expectations of family and friends after a suicide	
3 Q	Friends and relatives of the suicide victim require a greater number of interventions based on key figures, social support and professional help. For professional help, it is considered crucial to have the necessary information in these circumstances, to choose between different support options, specific treatments in childhood and adolescence and long-term monitoring (629).
Q	The bereaved parents of a suicide victim are torn between the need to talk freely about the suicide and the perceived social stigma (632).
Q	For adolescents who have overcome the suicide of someone close, good health care includes automatic care after the suicide, tailored to their needs and prolonged over time. The care must also be flexible and empathetic, while having the possibility of participating in individual sessions (634).
4	Key aspects to consider for the implementation of intervention programmes after a suicide are dealing with different cultural realities, taking into account the effect of stigma and considering the needs and expectations of the relatives (629).
Preventive interventions in family and friends	
4	<p>Postvention must be done in the early stages of grief, and psychotherapeutic work with families must include the following (342):</p> <ul style="list-style-type: none"> – Confronting the reality of guilt towards oneself and to others, and the feeling of abandonment – Helping correct denials and distortions – Exploring family thoughts about how death will affect them in the future – Coping with the anger and rage that this type of death generates.

1+ 2+ 3	Family interventions in group format obtained the best improvements in different variables such as symptoms of depression, anxiety, psychological factors, reduced short-term distress, evolution of grief and satisfaction with participation in the therapy (636).
2+	Interventions performed immediately after a suicide were associated with a significant increase in self-help-seeking behaviour in family and friends and greater participation in support therapies (636).
1+	In a RCT comparing family CBT (4 sessions held within 3-6 months after the suicide) with normal treatment, no significant differences were found between groups in complicated grief reactions, nor in the presence of depression and suicidal ideation. However, the group receiving CBT showed less maladaptive reactions and lower perception of guilt about the suicidal behaviour in the family. It was also found that people with suicidal ideation benefitted more from the treatment and that CBT reduced the risk of pathological grief in these people (643).
Interventions in schools after a suicide	
1+ 2+ 3	There is no conclusive evidence on interventions aimed at students after a suicide in the school (636, 643).
3	Training programmes for personnel in schools (gatekeeper and crisis intervention) were associated with a significant increase in the level of knowledge about suicide and high levels of satisfaction and usefulness (636).
Community Interventions	
3	There is no conclusive evidence on the effectiveness of community intervention programmes after a suicide (636).
Intervention for health personnel after a suicide	
4	The different phases experienced by staff after the suicide of a patient are (659): <ul style="list-style-type: none"> – Phase 1 (Immediate): Shock – Phase 2 (Intermediate): Feelings of pressure, restlessness or unease – Phase 3 (Post-traumatic): Asking questions and self-doubt – Phase 4 (Recovery): Renewal of trust.
3	Various studies have shown that the following may occur after a patient's suicide: post-traumatic stress disorder, aggression, feelings of grief, guilt, isolation and humiliation, low self-esteem and concern for the reaction of colleagues (243, 247).
3	The most important factors linked to the onset of distress in personnel include issues relating to the treatment plan, possible negative reactions from colleagues or managers and the possibility of legal implications from the case, especially if the patient was not hospitalised (660).
3	Useful strategies after the suicide of a patient are seeking support from colleagues and reviewing the case (661-663).
3	Receiving specific training on the management of suicide and the emotional implications for personnel is considered very important (663, 665, 667).

4	After the suicide of a patient, it may be appropriate to hold a meeting of all the staff in the unit to report the suicide and to develop a strategy to support the remaining patients, including preventing imitation of the suicidal behaviour (667).
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Recommendations

Suicidal behaviour in children and adolescents	
D	The following is recommended when implementing any intervention aimed at the family and friends after a suicide: <ul style="list-style-type: none"> – Contextualising the intervention strategy – Taking into account the effect of stigma on family and friends – Considering the needs and expectations of the people involved.
✓	As soon as possible after a suicide, care which is flexible and tailored to the needs of each person should be offered.
D	After a suicide, it is recommended that health personnel offer support to family and friends and provide them with all the necessary information about available support resources, including specific treatments and the possibility of long-term monitoring.
B	Cognitive behavioural therapy is recommended in family and friends with suicidal ideation after a suicide, as it reduces the risk of pathological grief in these people.
D	It is recommended to implement training programmes for key figures (gatekeepers) in the school to increase the knowledge of educational personnel about suicidal behaviour and the impact of suicide on family and friends of the victim.
C	It is recommended that all professionals receive specific training on the emotional implications of a patient suicide and the necessary coping strategies.
D	After the suicide of a patient, it is recommended to ensure that the necessary support is given to personnel directly involved and to conduct a review of the case and the underlying factors.

12. Clinical intervention programmes for suicidal behaviour in Spain

Key questions:

- Are the clinical intervention programmes conducted in Spain effective in reducing future episodes of suicidal behaviour?

To answer this question, a number of tertiary clinical prevention programmes for suicidal behaviour implemented in Spain are described. They are based on using devices that ensure immediate assistance and appropriate follow-up for patients who have undergone a suicidal behaviour episode. Although they are described as tertiary prevention, these programmes also address secondary prevention, as among their goals is raising awareness, training and health education, to improve the diagnosis of patients at risk of suicidal behaviour.

Intensive Intervention Programme for Suicidal Behaviour in Ourense Health Area (393, 394)

Programme objectives

- Increasing the detection of patients at risk of suicide in primary care
- Providing specific assistance to patients referred from primary care or the emergency department after a suicide attempt or at risk of suicidal ideation via a specific programme
- Reducing suicide attempts and mortality in patients who have undergone a previous attempt in Ourense.

Programme description

Phase 1: Training in Primary Care:

This was performed between November 2008 and January 2009 with 19 x 1.5hr training courses in the Ourense Area major primary care health services, and was aimed at doctors and nurses. Training was given in the detection of patients at risk, initial management techniques and referral criteria. The training was in the workplace and its objectives were the following:

- Increasing the capability of detecting the risk of suicidal behaviour
- Providing knowledge about care alternatives and referral criteria for the programme.

Phase 2: Care for patients at risk of suicide:

This began in April 2009 and is still continuing.

- The main ways for the patient at risk of suicide to join the programme:
 - Primary care: where most patients with suicidal risk are found
 - Emergency department: mostly, people who have attempted suicide
 - Acute assessment units: after discharge following a suicide attempt
 - Mental health units: patients who have made a suicide attempt

- Inclusion criteria:
 - Patients who have had a suicide attempt or have thoughts of suicide risk from primary care, the emergency department or acute assessment units:
 - Patients who have made a suicide attempt in the last month
 - Patients with persistent suicidal ideation, at least during the previous week
 - Patients who partially meet the above criteria are assessed as below:
 - Current psychiatric diagnosis (especially major depression or schizophrenia)
 - Life event perceived by the patient as severe, prolonged and/or difficult to resolve
 - Hopelessness
 - Age > 60 years
 - Male
 - Low social support (loneliness)
 - Pain disability chronicity (especially in patients who are newly diagnosed with an illness they perceive as a loss of functionality or a worsening in their quality of life).
 - Patients will be referred to the programme only if the following conditions apply: they are eligible for outpatient treatment, they have had an initial interview, they express intent to control suicidal impulses and they accept a number of safety measures (accompanied by a relative or friend, removal of the lethal means used or planned, taking medication supervised and accepting outpatient treatment).
- Exclusion criteria:
 - Patients with a suicide attempt in the previous 24 hours must be sent to the hospital emergency department, as well as those that meet the emergency criteria: rejection of control measures and outpatient treatment, presence of active psychosis, psychomotor agitation and inhibited depression with impaired general condition.
 - For referrals from primary care, those already under treatment in mental health units
 - Patients with a primary diagnosis of alcoholism or other addictive behaviour
- Intervention:
 - An assessment and treatment is performed by a psychiatrist
 - Specific and controlled cognitive –behavioural type psychotherapy, oriented towards learning how to manage suicidal ideation and intention by a clinical psychologist. They are given at least 10 sessions in 6 months
 - A nursing diagnosis is performed and specific care plan implemented by a specialist mental health nurse, who also provides phone support to ensure early high intensity support and takes responsibility for assertive monitoring.

Indicators

Process:

- Attendance at the courses in primary care
- Waiting less than 7 days for the first consultation (with a psychiatrist)
- Waiting less than 7 days between the first consultation (with a psychiatrist) and starting treatment with a psychologist
- Completion of evaluation at the beginning and end of psychotherapy, as well as a follow-up after 1 year
- Undergoing 10 sessions of psychotherapy in 6 months
- Recording data for activities
- Ratio of referred patients to treated patients
- Appropriateness of referral
- Workload generated:
 - First visits and reviews by professional and patient
 - Number of telephone contacts with primary care
 - Number of telephone contacts with patients who do not attend the first consultation
 - Number of telephone contacts with patients who miss reviews.

Result:

- Initial/final suicide risk (Beck Hopelessness Scale)
- Quality of life before and after (WHO-DAS 32)
- Depressive symptoms before and after (BDI-21)
- Patients referred per 100,000 population from primary care, mental health units or hospital emergency rooms for suicidal ideation in the previous week or for attempted suicide in the previous month
- Drop-out rate before the end of the programme
- Rate of new suicide attempts per patient per year
- Rate of completed suicides per year.

Main results (personal communication)

At this point, the efficacy data from a sample of 89 patients treated for attempted suicide between April 2009 and June 2010 who had a 1-year follow-up are being analysed. The analysis of patients admitted to the programme for suicidal risk is pending. The most important preliminary results are as follows:

- A cohort analysis was performed on those attempting suicide, 1 year after an intervention to prevent further suicide attempts (n = 89); the effectiveness was compared against conventional treatment in a mental health unit (n = 102).

- The comparison between groups showed no statistically significant differences in terms of gender distribution, method used, the need for hospitalisation, age distribution, the attempt rate or number of previous attempts.
- Of patients following the intervention programme, 10% had a relapse compared to 20.6% in those receiving standard care ($p = 0.047$). The risk of relapse in patients who receive the programme in relation to the control group was 0.49, so the programme reduces the risk of relapse by 51% compared to the control group. The absolute risk reduction (ARR) was 0.1048 (10.5%), which means that 10 cases of relapse were prevented for every 100 people treated in the programme. Meanwhile, the number needed to treat (NNT) was 9.54, which means that 9.5 patients were needed to be treated with the programme to prevent 1 case of relapse.
- Using a Cox model and controlling the relapse event by the number of previous attempts, age, gender and need for hospitalisation after the attempt rate, it was observed that being on the programme gave an odds ratio of 0.4 (with 2.5 for not being on it) for relapsing with a new suicide attempt ($p = 0.031$), independent of gender, age, number of previous attempts and the need for admission after the attempt, while the only predictor factor for protection was being on the programme.
- Of the patients who relapsed, no patient on the programme needed to be hospitalised compared with 28.6% of patients not included in the programme.

In summary, one can conclude that the programme is a more effective action for preventing farther suicide attempts than standard care, and this efficacy may be maintained throughout successive years, judging by the differences in the survival curves for the 2 samples,. Furthermore, it appears that the farther suicide attempts from patients on the programme were less severe than those receiving standard treatment, as they needed to be hospitalised less often.

Suicidal Behaviour Prevention Programme (SBPP) - Dreta district, Eixample, Barcelona (396)

Coordinated by the Psychiatry Department of the Santa Creu i Sant Pau Hospital and the *Adult Mental Health Centre*, Dreta, Eixample, the programme was implemented in 4 phases between September 2005 and December 2008. The programme compared patients undergoing the programme in the field of study with other patients, who consulted for the same reason, but live in areas outside the area of influence of the SBPP.

Programme description

The actions taken were as follows:

Phase I (September 2005-April 2006):

- Creation of a multidisciplinary team to make contact with the different health care levels and social services
- Consensus on a data collection protocol
- Design of patient care circuits.

Phase II:

- Preparation of an information, education and awareness programme aimed at health professionals and social workers through briefing sessions

- Preparation of audiovisual materials (brochures, DVDs) with information and warnings on the subject of suicide
- Starting a website (www.suicidioprevencion.com) for direct consultation with personnel assigned to the SBPP
- Training on suicide risk in basic health areas, gatekeepers, social welfare services, geriatric care devices, hospital emergency services, district civic associations, business people, relatives of the mentally ill, diocesan pastoral committee, emergency services, public transport operators and the media.

Phase III (April 2006-December 2007):

Directed at the care of patients with suicidal ideation or behaviour. Patients were referred to the SBPP from psychiatric emergency services, district family physicians and hospital referral units.

- Features of the care provided:
 - Priority care within 48 hours
 - Evaluation by a psychiatrist and inclusion in the SBPP if
 - Over 18
 - Active suicidal ideation or attempted suicide
 - Willingness to participate in the SBPP
 - Individualised treatment plan (reference psychiatrist to coordinate the care for 3-6 months, with the patient being treated in the SBPP, individual or group psychotherapy by a clinical psychologist and nursing staff and social worker consultation, if needed)
 - Subsequent integration of the patient in the mental health care circuit
 - Organisation of group cognitive behavioural psychotherapy and crisis intervention, as well as survivor support.

Phase IV (in 2008):

This was a follow-up phase assessing patients via structured, face-to-face interviews or via telephone at 6 and 12 months, by a psychiatrist or nurse. Data was collected on the repetition of suicidal behaviour, if hospitalisation was required for suicidal behaviour, the programme follow-up and mortality.

Main results

Since the programme started in April 2006 and ended in December 2007, 325 patients attended from the Dreta, Eixample area and 664 from other areas. Of the former 325 patients, only 219 were included. The rest did not participate and were referred to their usual psychiatrist (60%), to drug abuse programmes (20%) or did not participate for other reasons (20%).

Of the 664 patients from other areas, only 180 were included in the control group. These all came from the same neighbourhood, and received care contemporaneously with those on the SBPP as well as voluntarily agreeing to carry out controls at 6 and 12 months. Thus, 219 Dreta, Eixample patients included on the SBPP were compared with 180 control patients.

Patients included in the SBPP (219):

- 152 were followed up at 6 months
- 44 were discharged after 2 or 3 visits, since the suicidal ideation had not persisted or the crisis situation had been resolved
- The remaining 23 abandoned the follow-up (with 2 committing suicide)
- 148 patients continued the follow-up to 12 months.

Control patients (180):

- 172 were followed up at 6 months and 167 continued until 12 months, of which 1 committed suicide and 4 were not located.

Sociodemographic data

These were similar between the SBPP and control groups in age, gender distribution and coexistence; although, a higher percentage of young adults, single people and pensioners were observed in the control group.

Distribution diagnosis (DSM-IV axes)

Affective and adjustment disorders predominated in the SBPP group (48% and 32% vs. 32% and 15% in the control group), whereas the control group contained more psychotic and toxic substance dependence disorders (15% and 15% vs. 4% and 3% in the SBPP group). The proportion between diagnoses was similar for axis II, as was the social adaptation score in the final year (axis V).

Suicidal behaviour features

There was a higher percentage of suicidal ideation in the SBPP group (59% vs 37%, $P < 0.0001$) and a higher percentage of suicide attempts in the control group (57% vs 31%, $P < 0.0001$). The suicide method used, somatic severity and behavioural impulsivity were similar in both groups. The control group had more patients with previous attempts (54% vs 33%, $P < 0.0001$), although the number of previous attempts were similar.

Referral

The SBPP group had a lower proportion of hospital admissions (6.5%) and higher out-patient monitoring (89.5%) than the control group (36.5% and 56.5%, respectively, $P < 0.0001$).

12 months follow-up

- Repetition of attempted suicide: 11% (SBPP group) and 32% (control group, $P < 0.001$)
- Number of repeat attempts: 1.5 (SBPP group) and 2.9 (control group, $P = 0.001$)
- Number of admissions during follow-up: 9.5% (SBPP group) and 18% (control group, $P = 0.03$)
- 5 Dreta, Eixample patients committed suicide during the study period, including 2 women who were linked to the prevention programme. The other 3 (1 female and 2 male) had links with the primary care initiative.

Conclusions

- The significant reduction in the recurrence of suicidal behaviour (11% in the SBPP group and 32% in the control group, $P < 0.001$) and hospitalisation (9.5% in the SBPP group and 18% in the control group, $P = 0.03$) confirm the effectiveness of the SBPP.
- Health information given through audiovisual media, reporting immediate care resources for people at risk, did not cause an “epidemic of suicide attempts” nor excessive demand for health care.
- There was a much higher percentage of self-harm ideation in the Dreta, Eixample patients seen for suicidal behaviour than in the control group. This was possibly because the programme phase aimed at psychoeducation influenced their detection at an earlier stage, either by the primary care intervention or via the initiative of patients or family.
- The results were indicative that reasoned information on suicide risk facilitates the request for help.
- It was difficult to specify which of the programme phases were more effective than others (health education, individualised care or coordination of resources).
- Suicide mortality could not be assessed due to the absence of statistical data in each sector of the population.

Multilevel intervention programme for the prevention of depression and suicide (Corporació Sanitària i Universitaria Parc Taulí de Sabadell (Barcelona) (668)

The European Alliance Against Depression (EAAD) is an international network of experts whose aim is to promote the care of patients with depression through community intervention programmes. Currently, the EAAD strategy is being implemented in Sabadell with the “Multilevel intervention programme for the prevention of depression and suicide”.

The programme was based on 4 types of community intervention:

- a) Cooperation with primary care physicians and paediatricians (training sessions).
- b) Public relations activities, cooperation with local media and implementation of school programmes for students aged 14-16 years, information brochures on depression and training sessions for teachers.
- c) Training sessions for key figures (such as social workers, teachers and educators).
- d) Specific health interventions for high-risk groups (e.g. after several suicide attempts).

Regarding the last point, a telephone management programme was prepared and applied to 991 patients treated for attempted suicide in the Emergency Department of the Corporació Sanitària i Universitaria Parc Taulí de Sabadell (Barcelona). The programme consisted of regular telephone calls for a year (weekly; and at 1, 3, 6, 9 and 12 months). The time between the first and second attempt and changes in the annual rate of suicide attempts were compared with the previous year and the control population (Terrassa Hospital), which received the normal treatment. The results were clinically relevant in reducing the rate of patients attempting another suicide attempt.

Main results (personal communication):

- Patients who followed the telephone management programme took longer before making another suicide attempt in relation to the previous year ($P < 0.0005$) or the control population in the same period ($P < 0.0005$).
- The rate of patients with farther suicide attempts was reduced by 8% in the intervention group compared to the previous year and the control population.

Intervention programme for people who have attempted suicide
East and West Valladolid health areas (669)

Programme objectives

- Increase the care for patients with suicidal behaviour in the Valladolid East and West health area.
- Improve the efficiency of health services by identifying specific and effective interventions to reduce suicide attempts.
- Improve patient knowledge about the determinants of suicide and self-help attitudes and behaviours.
- Evaluate and prevent possible relapses.

Programme description

The participants were between 12 and 70 years old and hospitalised in the psychiatric units in the Valladolid East and West health area for 6 months, due to having suicidal thoughts or attempting suicide. A longitudinal follow-up was performed to determine the effectiveness of the programme through an internal quasi-experimental pre-post test comparison type design. The pre-test results were used to estimate the effect of not applying the programme in the target population.

Main results

90% of patients referred to the programme agreed to participate and the remaining 10% suffered severe obsessive or psychotic comorbidity. The proportion leaving the programme was 17.9%, of whom 25% were transients without a permanent residence, so follow-up was very difficult. No relapses were found in 80% of patients during the follow-up period. The proportion in stable treatment who were put into contact with other initiatives in the area was 23%. Of these, one-third went to a day hospital, 8.7% to a nursing unit and 57.4% made contact with self-help associations.

Evidence summary

Intensive Intervention Programme for Suicidal Behaviour in Ourense Health Area (393, 394)	
2+	<p>The programme was conducted in two phases. The first, from November 2008 to January 2009, had 19 training courses of 1.5 hours aimed at doctors and nurses in the major primary health care centres in the Ourense Area. It included training in the detection of patients at risk, initial management techniques and referral criteria. The second phase of patient care for those at risk of suicide began in April 2009 and is still continuing today. This programme is for patients referred from primary care or the emergency or acute units who have made a suicide attempt or who have serious thoughts of suicide. The patients undergo evaluation, drug treatment by a psychiatrist, specific and regulated cognitive-behavioural type psychotherapy by a clinical psychologist and a specific care plan by a registered specialist mental health nurse with telephone support.</p> <p>Of patients who followed the intervention programme, 10% relapsed compared to 20.6% in those receiving standard care ($P = 0.047$). The risk of relapse of patients in the programme in relation to the control group was 0.49, which means that the programme reduces the risk of relapse by 51%. Of every 100 people treated in the programme, 10 cases of relapse were prevented and 9.5 patients were needed to be treated with the programme to prevent 1 case of relapse.</p> <p>Being in the programme meant there was a 6 times lower risk of attempting a further suicide attempt than not being on it; this was independent of gender, age, number of previous suicide attempts and the need for hospitalisation after the attempt. The only predictive factor associated with protection was being on the programme.</p>
Suicidal Behaviour Prevention Programme (SBPP) - Dreta district, Eixample, Barcelona (396)	
2+	<p>The programme consisted of 4 phases held between September 2005 and December 2008. It was coordinated by the Psychiatry Department of the Santa Creu i Sant Pau Hospital and the Adult Mental Health Centre, Dreta, Eixample. Patients in the study area who underwent the programme were compared with other patients who consulted for the same reason but lived in areas outside the area of influence of the SBPP.</p> <p>The 4 phases were:</p> <ul style="list-style-type: none"> – Phase I (September 2005 - April 2006): Creation of a multidisciplinary team and design of patient care circuits. – Phase II: Preparation of an information, education and awareness programme aimed at health professionals and social workers through briefing sessions; preparation of audiovisual materials; creating a website and training on suicide risk in different sectors of the general population.

	<ul style="list-style-type: none"> - Phase III (April 2006- December 2007): Care of patients with suicidal ideation or behaviour. Patients were referred to the SBPP from psychiatric emergency services, family physicians and hospital referral units. The programme consisted of priority care within a maximum of 48 hours; evaluation by a psychiatrist, individualised treatment plan (reference psychiatrist to coordinate the care for 3-6 months, with the patient being treated in the SBPP, individual or group psychotherapy by a clinical psychologist and nursing staff and social worker consultation, if needed); subsequent integration of the patient in the mental health care system and organisation of cognitive behavioural psychotherapy and crisis intervention groups, as well as survivor support. - Phase IV (in 2008): Monitoring phase assessing patients via structured, face-to-face interviews or telephone at 6 and 12 months, by a psychiatrist or nurse. <p>The key findings were:</p> <ul style="list-style-type: none"> - Confirmation of the effectiveness of SBPP by the significant reduction in the recurrence of suicidal behaviour (11% in SBPP group and 32% in control group, $P < 0.001$) and hospitalisation (9.5% in SBPP group and 18% in control group; $P = 0.03$). - Health information given through audiovisual media, reporting immediate care resources for people at risk, did not cause a contagion effect or lead to oversubscribed care. - There was a much higher percentage of self-harm ideation in the Dreta, Eixample patients than in the control group. This was possibly because the programme phase aimed at psychoeducation influenced their detection at an earlier stage, either by the primary care intervention or via the initiative of patients or family. - The results were indicative that reasoned information on suicide risk facilitates the request for help. - It was difficult to specify which of the programme phases were more effective than others (health education, individualised care or coordination of resources). - Suicide mortality could not be assessed due to the absence of statistical data in each sector of the population.
<p>Multilevel intervention programme for the prevention of depression and suicide (Corporació Sanitària i Universitaria Parc Taulí de Sabadell (Barcelona) (668)</p>	
<p>2+</p>	<p>The programme was based on 4 types of community intervention: 1) Cooperation with primary care physicians and paediatricians; 2) Public relations activities, cooperation with local media and implementation of school programmes, information brochures and training sessions for teachers 3) Training sessions for key figures; 4) Specific health interventions for high-risk groups.</p>

	<p>A telephone management programme was prepared and applied to 991 patients treated for attempted suicide in the Emergency Department of the Corporació Sanitària i Universitaria Parc Taulí de Sabadell, Barcelona. The programme consisted of regular telephone calls for a year (weekly; and at 1, 3, 6, 9 and 12 months). The results were compared with a control population (Terrassa Hospital) who received standard treatment.</p> <ul style="list-style-type: none"> – Patients who followed the telephone management programme took longer before making another suicide attempt in relation to the previous year ($P < 0.0005$) or the control population in the same period ($P < 0.0005$). – The rate of patients with farther suicide attempts was reduced by 8% in the intervention group compared to the previous year and the control population.
<p>Intervention programme for people who have attempted suicide. East and West Valladolid health areas (669)</p>	
2+	<p>The participants were between 12 and 70 years old and hospitalised in the psychiatric units in the Valladolid East and West health area for 6 months, due to having suicidal thoughts or attempting suicide. A longitudinal follow-up was performed to determine the effectiveness of the programme through an internal pre-post test comparison design.</p> <p>Main results:</p> <ul style="list-style-type: none"> – 90% of patients referred to the programme agreed to participate and the remaining 10% suffered severe obsessive or psychotic comorbidity. 17.9% of the participants left the programme, 25% of whom were transients without a permanent residence, so follow-up was very difficult. – No relapses were found in 80% of patients during the follow-up period. The proportion in stable treatment who were put into contact with other initiatives in the area was 23%. Of these, one-third went to a day hospital, 8.7% to a nursing unit and 57.4% made contact with self-help associations.

Recommendations

<p>Suicide behaviour clinical intervention programmes in Spain</p>	
C	<p>Suicidal behaviour clinical prevention programmes based on health education and the implementation of measures to ensure immediate care and adequate monitoring are recommended for implementation in the health services.</p>

13. Legal aspects of suicide in Spain

Key questions:

- What are the most important legal issues in dealing with suicidal behaviour in Spain?

13.1. The penal code and suicide

The legal position of suicide in Spain

Suicide is not a crime in Spain although it is in other countries where a person is considered as an asset or property of the state. However, articles 143.1-2 of the Penal Code make it punishable by the law to encourage suicide (4-8 years imprisonment) and assist in a suicide, provided it is done with necessary actions (2-5 years imprisonment) (670).

Article 143.4 of the same penal code considers cooperation on humanitarian grounds and states “whoever causes or might cooperate actively with the direct actions necessary for the death of another, by their explicit, serious and unequivocal request, will be punished with a lesser sentence if the victim suffered a serious illness that would necessarily lead to his death or produced excessive suffering and was difficult to bear”.

How does the Penal Code treat malpractice?

Under the generic title of criminal recklessness, the Criminal Code recognises criminal negligence, i.e. those offences where damage is caused unintentionally but whose outcome could have or should have been expected to be avoided (670).

The law considers a set of requirements for an action to be considered as negligent:

1. Voluntary action or omission.
2. Reprehensible due to its negligent nature or lack of foresight.
3. Infringement of the objective duty of care.
4. Causation of a harmful outcome.
5. A causal link between the action or omission and the harmful result.

Therefore, to qualify as reckless in the health field, a particular action or omission must have a double charge: one for the action and the other for its result.

The Spanish Penal Code defines the crime of recklessness in its article 142 item 1, “serious negligence which causes the death of another person shall be punished as guilty of reckless homicide, with a period of imprisonment from 1 to 4 years.” Paragraph 3 of this Article qualifies as follows: “When the murder was committed by professional malpractice, a penalty of disqualification for the exercise of the profession, trade or position shall also be imposed for a period of 3 to 6 years” (670, 671).

13.2. Treatment of suicidal behaviour during detention

How is involuntary detention treated in the Patient Autonomy Act?

The rights and obligations of patients, users and health system professionals are regulated by Law 41/2002, Patient Autonomy (68, 672) whose basic principles indicate that, after receiving adequate information about the available clinical options, the patient or user has the right to decide freely, and that every patient or user has the right to refuse treatment, except in cases determined by the law. These exceptions relate on the one hand to a risk to public health and on the other to a serious immediate risk to the physical or mental integrity of patients when it is impossible to get their authorisation (after consultation with relatives or common law partners, when circumstances permit). The existence of suicide risk is included in the last section.

How is involuntary detention treated in the Civil Procedure Law?

The Civil Procedure Act 1/2000, January 7 regulates involuntary detention due to a mental disorder in its Article 763 (673), by noting that “the detention due to a mental disorder of a person who is unable to decide for himself, even if subject to parental authority or guardianship, requires judicial authorisation, which will be realised from the court pertaining to the location of the place of residence of the person affected by the detention”. Authorisation will be prior unless urgent cases require the immediate adoption of the measure.

The detention must be notified to the court within 24 hours, so it can approve or rescind the measure within 72 hours, which is the period of time corresponding to habeas corpus in Spanish law (671, 674).

Obviously, an indication of internment raises the question of its duration. It is clear that a patient cannot be admitted indefinitely due to the existence of a possible suicide risk, but must be assessed regarding its development, until the risk is manageable under outpatient treatment (675).

In its decision of December 2, 2010 (BOE January 5, 2011) (676), the Constitutional Court declared the first and third paragraphs of Art 763.1 of Law 1/2000, January 7 Civil Procedure (673) to be unconstitutional. It made the statement based on the fact that the deprivation of individual liberty must be considered in an Organic Law, as it affects a fundamental human right.

In general, the civil liability of healthcare determines an obligation of means, and not results, which implies that the failure of preventive measures is not necessarily equivalent to malpractice. This would be considered if the health professional had not paid attention to evident signs of risk or, after considering them, had not made decisions to avoid them (i.e. negligence or recklessness).

Who can order an involuntary hospitalisation?

There is nothing prescribed by law regarding who can order an involuntary admission. Thus, anyone can inform the prosecutor or the judge of the existence of an individual who presents a risk to himself or others, and who therefore requires this measure. The law, however, provides for two types of groups of people who must seek involuntary admission: tutors regarding their pupils and parents for their children, subject to parental authority.

The latest medical documentation available is submitted with the application for involuntary admission. The informant doctor need not be a specialist in psychiatry, but must demonstrate the necessity of the measure.

13.3. Health responsibilities arising from suicide

What is the most common cause of lawsuits in psychiatry?

Suicidal behaviour is the most common cause of lawsuits against a psychiatrist for malpractice (677). In most cases, “gross negligence” is claimed, due to not adequately predicting or preventing the patient’s suicidal behaviour (678).

In suicides, the healthcare professional is criminally liable only when his conduct is clearly predictable and humanly preventable, and his professional attitude was manifestly careless or reckless. The professional has to prove that he took the appropriate measures.

What constitutes professional responsibility in the area of health?

Responsibility is the obligation to comply with the law regarding the performance and obligation to repair the damage caused, occasioned and the resultant suffering. Its foundation is the appearance of damage caused by inappropriate and involuntary behaviour, which should be expected and which has breached the objective duty of care. Such improper conduct may be, according to the case, reckless (assuming unnecessary risks), negligent (with serious negligence or carelessness) or inexperienced (lack of knowledge or experience) (671).

The most common cases of malpractice from which liability can be derived are:

- An incorrect or negligent diagnosis which results in the undue release of a patient who subsequently commits suicide or injures himself.
- An incorrect or negligent diagnosis leading to a wrongful admission or retention.
- In the management of patients: failure to protect or control a patient with suicidal behaviour.

What are some features of good practice in addressing suicidal behaviour?

- The patient with suicidal thoughts must always be personally assessed. If there are insufficient means to do so, the patient must be referred for appropriate treatment to other professionals or centres where he can be properly treated.
- The health professional must also be able to handle crisis situations, inform the family in a clear and appropriate manner, provide guidelines for monitoring and controlling drug treatment, motivate patients to accept treatment and take responsibility for their situation.
- Appropriate information and warnings must be given to the patient at risk of suicide regarding his treatment to prevent future malpractice lawsuits. Although for legal purposes the information leaflet provided with a drug is equivalent to “informed consent”, it is much more correct and secure to make a note in the medical record about warnings made about the risk of suicide to both the patient and his family.
- Finally, the control measures for admission to a health centre can be raised or lowered depending on the degree of vigilance required.

A key issue is to make a complete and accurate medical history of the patient, to help in appropriate monitoring and prevent difficulties for the person responsible for treatment. It should also include all scans performed, the estimated risk of suicide, all measures taken in this respect and reflect each decision made and the subsequent evolution.

However, it should also be remembered that some suicides are inevitable, no matter how highly skilled and diligent those responsible for treatment and the family are.

When can Public Administrations be held responsible?

The Law on the Legal Regime of Public Administrations and the Royal Decree (RD) 429/1993 states that individuals should be compensated by the administration for any harm they suffer, except in cases of force majeure, provided that the injury is as a consequence of a normal or abnormal operation of public services. There must be a direct, immediate and exclusive cause-effect relationship between the damage and public service (671).

For the treatment of patients with a history of suicidal behaviour, it is necessary to intensify surveillance and custody functions, pursuant to the guarantor status assigned to staff and health institutions by Article 10.6.c) of the General Health Law (679).

13.4. Confidentiality and professional secrecy regarding suicide

What does the Patient Autonomy Act establish regarding the right to privacy?

Everyone has the right for the data relating to their health to be kept confidential, with no one being able to access them without permission protected by law.

What does the Penal Code say on professional secrecy?

Professional secrecy was regulated for the first time in Spain in the current Penal Code (Organic Law 10/1995, November 23), Articles 197, 198 and 199. Until that time, there was only an ethical and administrative consideration, but not criminal (670).

Currently, the professional secrecy is limited to the following legislative framework:

- Spanish Constitution (Articles 18-20-24) (680)
- Penal Code (Articles 197-199) (670)
- Law 41/2002 regulating the patient's autonomy and the rights and obligations of information and clinical documentation (Article 7) (672)
- Health Act of 1986 (679)
- Act 5/92 Computer Data Protection (681)
- Code of Ethics (section 6; Articles 43-53) (682).

Professional secrecy obliges everyone who is in one way or another in contact with the patient, with Article 199.1 of the current Penal Code expressing it in the following terms: “whoever reveals the secrets of others, known by virtue of his office or employment relationship, shall be punished with imprisonment for 1-3 years and a fine calculated from a term of 6-12 months”. The same article in section 2 adds: “the professional who, in breach of his obligation of secrecy and reserve, divulges the confidences of another person shall be punished with an imprisonment term of 1-4 years, a fine calculated from a term of 12-24 months and disqualification from the profession of 2-6 years” (670).

What are the exceptions to medical secrecy?

Although medical secrecy is a legal requirement, there are a number of situations which are an exception to this. Practitioners may disclose a patient's health data, without their consent in the following cases:

- When they have knowledge of a crime committed (Article 263 of the Criminal Procedure Act does not relieve health staff of the duty to report criminal acts known by virtue of their office, as is the case with priests and lawyers; and neither does Article 411 of the same act provide for medical confidentiality as grounds for not testifying in criminal proceedings) (683). Civil proceedings expressly provide for the possibility of requesting the judge for exemption from professional secrecy if declared as an expert.
- When faced with an infectious disease, and there is a serious risk to third parties or to public health. In these cases the doctor is also obliged to declare the disease to the health authority.
- When there is a serious immediate risk to the physical or mental integrity of the patient and it is not possible to get his permission. In this sense, the code considers exemption from liability when acting in a “state of necessity” to avoid negative consequences to themselves or others.
- When appearing as the accused party, defendant or respondent in a legal proceeding. In reports to another colleague (including medical inspectors) there is no obligation of secrecy because what is produced takes the form of a “shared secret”.

Summary of legal aspects

Penal Code and suicide: Suicide is not a crime in Spain. However, the Penal Code outlaws the encouragement and assistance of suicide, as well as professional negligence.

Involuntary detention in the case of a suicide risk is one of the exceptions to the Patient Autonomy Act, and is possible only if there is a serious immediate risk to the physical or mental integrity of the patient and it is impossible to get his permission. It requires judicial authorisation, which is prior to the detention, unless the immediate adoption of the measure is required for reasons of urgency. This is notified to the court as soon as possible and in all cases within 24 hours.

Any person can request an involuntary detention by informing the public prosecutor or judge of the existence of an individual who is a risk to himself or to third parties, and who therefore requires this measure. It requires a report by any medical practitioner who can justify the need for admission.

Suicidal behaviour is the most common cause of lawsuits against a psychiatrist for malpractice.

Professional responsibility may be for:

- Reckless conduct (assuming unnecessary risks)
- Negligence (sloppiness or carelessness)
- Inexpertise (lack of knowledge and experience)

The most frequent reasons for malpractice are:

- Negligence for not admitting or discharging a patient who then commits suicide or injures himself.
- Incorrect diagnosis due to wrongful admission or detention, or the failure to protect or control a suicidal patient.

The healthcare professional will be criminally liable where the conduct is clearly foreseeable and humanly avoidable, and the professional attitude was manifestly careless or reckless. The professional has to prove that he took the appropriate measures.

Forms of preventive action on suicidal behaviour:

- Always assessing the patient with suicidal ideation
- Performing a complete and accurate medical history
- Informing the family in a clear and appropriate manner, giving guidelines for monitoring and the control of drug treatment
- Informing both the patient with suicide behaviour and his family of the treatment to be undertaken
- Taking additional control measures if required: detention with a greater or lesser degree of security
- If there are no therapeutic resources/tools, referring the patient to other professionals or centres where he can be properly treated.

Professional secrecy: Everyone has the right for the data relating to their health to be kept confidential, with no one being able to access them without permission protected by law.

Exceptions to professional confidentiality:

- Knowledge of the existence of a crime
- Presence of infectious disease and serious risk to third parties or public health
- Immediate serious risk to the physical or mental integrity of the patient when it is not possible to get authorisation (state of need)
- When appearing as the accused, defendant or respondent
- Reports to another colleague, including medical inspection (shared secret).

14. Quality indicators

Once a CPG with its recommendations has been prepared, it is important to know whether the desired objectives are achieved in clinical practice. Therefore, a set of indicators prepared from the recommendations (based on scientific evidence and expert opinion) was designed, which can be used to monitor and drive continuous improvement in the management of suicidal behaviour.

These proposed indicators measure relevant aspects of the management of suicidal behaviour and were agreed with the guideline development group (by the RAND/UCLA method). A total of 25 indicators were obtained which were merged into 16 after unifying some specific indicators (in the case of suicide risk assessment, combined treatment and drug treatment).

The **Proposed indicators** are tabulated below:

Area	Evaluation focus	Indicator
Diagnosis	Process	1. Assessing the risk of suicide in: 1a: Primary care 1b: Mental health 1c: Emergency Dept
		2. Record suicide risk assessment in clinical history
		3. Specialist assessment after suicidal behaviour treated in Emergency Dept
Management	Process	4. Preferential referral to mental health from primary care
		5. Urgent referral to mental health from primary care.
		6. Urgent referral to hospital Emergency department from Primary care
		7. Delay time in caring for patients with suicidal behaviour in Emergency Dept
		8. Adoption of safety measures in patients with suicidal behaviour treated in Emergency Dept
Treatment	Result	9. Hospitalisation for suicide risk
		10. Psychotherapeutic treatment
		11. Psychotherapy sessions frequency
		12. Cognitive behavioural therapy in patients with suicidal ideation after the death of a family member due to suicide
		13. Combined treatment (psychotherapy and pharmacotherapy) in: 13a: Childhood and adolescence 13b: Elderly

		14. Pharmacotherapy in patients with: 14a: Depression 14b: Anxiety and depression 14c: Bipolar disorder 14d: Schizophrenia and schizoaffective disorders
	Result	15. Electroconvulsive therapy in patients at high risk of suicide
Professional training	Structure	16. Training for personnel in detecting and treating suicidal behaviour and depression in: 16a: Primary care 16b: Mental health 16c: Emergency

Indicator	1. Assessing the risk of suicide
Justification	Suicide risk assessment is a crucial task in the management and prevention of suicidal behaviour. In general, there must be a psychopathological and social assessment performed (of basic character in primary care and emergency), which includes the assessment of risk and protective factors, both personal and contextual, in the settings of primary care (1a), the emergency department (1b) and mental health (1c) for a patient at risk of suicidal behaviour. Although psychometric instruments can be used as a support, the evaluation will be done by clinical interview, while the suicide risk assessment depends on the professional's clinical judgment.
Formula	<p>1a, 1b, 1c)*</p> $\frac{\text{No of patients at risk of suicide undergoing a specific assessment}}{\text{No of patients at risk of suicide}} \times 100$ <p>* Depending on the area to assess, the numerator or denominator will include patients from primary care, emergency or mental health, or all of them.</p>
Description of terms	<p><u>Patients at risk of suicide</u>: Patients with suicidal ideation, mental disorder, substance abuse, recent suicidal behaviour or family risk situation.</p> <p><u>Psychopathological and social evaluation</u>: Evaluation of risk factors including personal and contextual (social, stressful life events, history of mental disorder, previous suicide attempts, suicidal ideation and intent or abuse of alcohol and other drugs).</p> <p><u>Patient History</u>: Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.</p>
Population	Patients at risk of suicide assisted by a particular physician in primary care, emergency or mental health service, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient clinical history
Target	100%

Indicator	2. Specialist assessment after suicidal behaviour cared for in an emergency department
Justification	Patients with suicidal behaviour who visit an emergency department are first attended to by an emergency physician, who will then decide whether an in situ psychiatric evaluation is appropriate. This specialist evaluation is essential when certain factors (psychiatric evaluation criteria) are seen or when there is doubt about the risk of future suicidal behaviour.
Formula	$\frac{\text{No of patients undergoing a psychiatric assessment in the emergency department undergoing a specific assessment}}{\text{No of patients attending an emergency department for a suicidal behaviour episode}} \times 100$
Description of terms	<p><u>In situ psychiatric assessment criteria</u>: High lethality of the episode, previous attempts, severe mental disorder, at risk in social and family situation or concerns about the risk of recurrence.</p> <p><u>Patient History</u>: Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.</p>
Population	Patients with suicidal behaviour evaluated in an emergency department, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	100%

Indicator	3. Recording a suicide risk assessment in the clinical history
Justification	The information compiled in the clinical history is, in part, a reflection of the quality of care, as it is a record of the activities and care given. It also allows the continuity of the process, communication between professionals and may become a highly important legal document. All information collected in the assessment of suicide risk is recorded explicitly and in detail in the medical history, with particular emphasis on current risk factors and suicidal ideation or behavioural features.
Formula	$\frac{\text{No of patients with appropriate records in their medical history}}{\text{No of patients with suicidal ideation or behaviour who have received a suicide risk assessment}} \times 100$
Description of terms	<u>Patient History</u> : Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.
Population	Patients in the geographic reference area (primary care, emergency services, mental health services), including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	100%

Indicator	4. Urgent referral to mental health from primary care
Justification	Primary care personnel are of utmost importance in the assessment and management of suicidal behaviour. Once the risk of suicide is assessed, there will be cases of ideation (4a) or suicidal behaviour (4b) that need to be evaluated by a psychiatrist, according to the urgent referral criteria. Emergency care by the mental health service can be provided in the emergency department of the referred hospital or at another location, depending on the functional organisation.
Formula	<p>4a and 4b*</p> $\frac{\text{No of patients urgently referred to mental health}}{\text{No of patients with suicidal ideation or behaviour seen in primary care who meet criteria for urgent referral to mental health}} \times 100$ <p>* The numerator will include patients with suicidal ideation or behaviour, or both.</p>
Description of terms	<p><u>Patients at risk of suicide</u>: Patients with suicidal ideation, mental disorder, substance abuse, recent suicidal behaviour, family situation at risk or lack of support.</p> <p><u>Urgent referral criteria due to suicidal ideation</u>: These criteria include the following factors: presence of severe mental disorder, recent serious self-harm behaviour, prepared suicide plan, expression of suicidal intent which is maintained at the end of the interview, concern about the severity of suicidal ideation or risk of an immediate attempt, family situation at risk or lack of support.</p> <p><u>Urgent referral criteria due to suicidal intent</u>: Urgent referral to the mental health services is recommended if factors such as high lethality of the plan (whatever the outcome), presence of severe mental illness, recent serious suicidal behaviour, previous suicide attempts, family situation at risk or lack of support, concern about the seriousness of the attempt or risk of recurrence.</p> <p><u>Patient History</u>: Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.</p>
Population	Patients with suicidal ideation or behaviour assessed in primary care, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	100%

Indicator	5. Preferential referral to mental health from primary care
Justification	If a patient has suicidal ideation or behaviour in primary care, a preferential transfer to the mental health service (within a week) could be considered without any of the urgent referral criteria being present and if a series of certain conditions are met (urgent referral criteria).
Formula	$\frac{\text{No of patients referred preferentially from primary care to mental health}}{\text{Number of patients at risk of suicide in primary care}} \times 100$
Description of terms	<p><u>Patients at risk of suicide</u>: Patients with suicidal ideation, serious mental disorder, substance abuse, recent suicidal behaviour, family situation at risk or lack of support.</p> <p><u>Urgent referral criteria</u>: Cases of suicidal ideation in people with severe mental disorder, recent serious self-harm behaviour, prepared suicide plan, expression of suicidal intent which is maintained at the end of the interview, concern about the severity of suicidal ideation or risk of an immediate attempt, family situation at risk or lack of support; and for cases of suicidal behaviour with factors such as high lethality of the attempt are present, regardless of the outcome.</p> <p><u>Preferred referral criteria</u>: Absence of urgent referral criteria and evidence of relief after the interview, intention of controlling suicidal impulses, acceptance of treatment and containment measures agreed, effective social and family support.</p> <p><u>Patient History</u>: Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.</p>
Population	Patients with suicidal ideation or behaviour assessed in primary care, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	100%

Indicator	6. Urgent referral to hospital emergency department from primary care
Justification	In many cases, episodes of suicidal behaviour must be referred to a hospital emergency department for treatment of injuries produced.
Formula	$\frac{\text{No of patients referred to emergency department}}{\text{Number of patients with suicidal behaviour seen in primary care who meet the criteria for urgent referral to an emergency department}} \times 100$
Description of terms	<p><u>Patients at risk of suicide</u>: Patients with suicidal ideation, serious mental disorder, substance abuse, recent suicidal behaviour, family situation at risk or lack of support.</p> <p><u>Urgent referral criteria to a hospital emergency department</u>: Any suicidal behaviour episode resulting in injuries that cannot be met in primary care and require medical treatment; voluntary intoxication with decreasing level of consciousness or appearance of agitation (in a previously stabilised patient).</p> <p><u>Patient History</u>: Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.</p>
Population	Patients with suicidal behaviour assessed in primary care, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	100%

Indicator	7. Delay in caring for patients with suicidal behaviour in emergency departments
Justification	The presentation of suicidal behaviour in emergency departments is highly heterogeneous, ranging from life-threatening situations to less serious situations. Whatever the level of severity of injury, all patients with suicidal behaviour in an emergency department should be classified in triage so as to guarantee their attention within the first hour after arrival (for the Manchester Triage System, this would be at least level 3).
Formula	$\frac{\text{No of patients with suicidal behaviour attended to within an hour of arrival at triage}}{\text{Number of patients with suicidal behaviour seen in emergency}} \times 100$
Description of terms	<p><u>Patients at risk of suicide</u>: Patients with suicidal ideation, serious mental disorder, recent suicidal behaviour, family situation at risk or lack of support.</p> <p><u>Patient History</u>: Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.</p>
Population	Patients with suicidal behaviour attended to in Emergency, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	100%

Indicator	8. Safety measures in patients with suicidal behaviour who attend the Emergency department
Justification	Measures to prevent the aggression of the patient directed towards himself or others and/or the patient fleeing the Emergency department should be taken. In general, potentially harmful objects and medicines must be removed from the potential reach of the patient. If there is an immediate risk of suicidal behaviour, the patient must be accompanied, ensuring regular contact is maintained with a member of the emergency department, as well as considering the possibility of physical restraint.
Formula	$\frac{\text{No of patients with suicidal behaviour in Emergency to whom safety measures are applied}}{\text{Number of patients with suicidal behaviour seen in Emergency}} \times 100$
Description of terms	<u>Patient History</u> : Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.
Population	Patients with suicidal behaviour attended to in Emergency, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	100%

Indicator	9. Hospitalisation due to suicide risk
Justification	The hospitalisation of a patient after an episode of suicidal behaviour depends on several factors that should be assessed, such as the medical and surgical impact of suicidal behaviour, the immediate risk of suicide, the need for more intensive treatment of mental disorder based on the lack of effective family and social support.
Formula	$\frac{\text{No of patients hospitalised after an episode of suicidal behaviour who meet the criteria}}{\text{Number of patients with suicidal behaviour seen in the Emergency department}} \times 100$
Description of terms	<p><u>Patients at risk of suicide</u>: Patients with suicidal ideation, serious mental disorder, recent suicidal behaviour, family situation at risk or lack of support.</p> <p><u>Patient History</u>: Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.</p>
Population	Patients with immediate risk of suicide or serious suicidal behaviour repercussions, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	100%

Indicator	10. Psychotherapeutic treatment
Justification	Psychotherapeutic techniques play an important role in the prevention of suicidal behaviour, so they should be available for those who need it. The psychotherapy used should have an impact on some specific aspect of the suicidal behaviour (e.g. self-harm, suicidal ideation and/or hopelessness).
Formula	$\frac{\text{No of patients receiving psychotherapy}}{\text{Number of patients with suicidal behaviour in the mental health service}} \times 100$
Description of terms	<p><u>Patient History</u>: Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.</p> <p><u>Psychotherapeutic techniques</u>: Cognitive- behavioural type therapy and interpersonal therapy are examples of this type of treatment which has demonstrated its efficacy in suicide prevention.</p>
Population	Patients receiving psychotherapeutic treatment for the prevention of suicidal behaviour, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	75%

Indicator	11. Frequency of psychotherapy sessions
Justification	The frequency of psychotherapy sessions should be weekly, at least at the start of treatment.
Formula	$\frac{\text{No of patients receiving weekly psychotherapy session at start of treatment}}{\text{Number of patients treated with psychotherapy}} \times 100$
Description of terms	<p><u>Start of treatment</u>: First month of psychotherapeutic treatment.</p> <p><u>Patient History</u>: Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.</p> <p><u>Psychotherapeutic techniques</u>: Cognitive –behavioural type therapy and interpersonal therapy are examples of this type of treatment which has demonstrated its efficacy in suicide prevention.</p>
Population	Patients receiving psychotherapeutic treatment for the prevention of suicidal behaviour, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	75%

Indicator	12. Cognitive behavioural therapy in patients with suicidal ideation after the death of a family member due to suicide
Justification	Postvention, or intervention after a suicide, refers to a series of activities with friends and family to prevent possible negative effects, including suicide itself (compared with the general population, such people have a 2-10 times increased probability of suicide). Cognitive behavioural therapy (CBT) is recommended for people with suicide ideation who have had people close to them commit suicide, as both suicidal ideation and the death of someone close due to suicide are considered important risk factors.
Formula	$\frac{\text{No of patients with suicidal ideation receiving CBT after the suicide of someone close to them}}{\text{No of patients with suicidal ideation after the suicide of someone close to them}} \times 100$
Description of terms	<u>Patient History</u> : Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.
Population	Patients receiving psychotherapeutic treatment for the prevention of suicidal behaviour, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	75%

Indicator	13. Combined treatment in adolescents and the elderly
Justification	The combined treatment of psychotherapy and pharmacotherapy is recommended for the special risk of suicidal behaviour in some age groups with a risk of suicide, adolescents (13a) and the elderly (13b). Specifically, adolescents with depression are recommended the combination of SSRI and CBT, while SSRI and IPT are recommended in the elderly.
Formula	<p>13a and 13b*</p> $\frac{\text{Adolescents (or the elderly) who receive combined treatment}}{\text{Number of adolescents (or the elderly) with suicidal behaviour}} \times 100$ <p>* Adolescent or elderly patients, or both, are included, depending on the evaluation.</p>
Description of terms	<p><u>Patients at risk of suicide</u>: Patients with suicidal ideation, serious mental disorder, recent suicidal behaviour, family situation at risk or lack of support.</p> <p><u>Patient History</u>: Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.</p> <p><u>Adolescents</u>: Patients aged between 12 and 18 years.</p> <p><u>Elderly</u>: Patients aged over 65 years.</p>
Population	Patients receiving combination therapy for the prevention of suicidal behaviour, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	75%

Indicator	14. Pharmacotherapy
Justification	Suicidal behaviour is a complex phenomenon, therefore there is no specific treatment to prevent it. However, appropriate pharmacological treatment for the underlying condition is one of the most important features for the prevention of suicide in patients with mental disorders.
Formula	<p>14a)</p> $\frac{\text{No of patients with major depression and suicidal ideation who are treated with SSRIs}}{\text{No of patients with major depression and suicidal ideation}} \times 100$ <p>14b)</p> $\frac{\text{No of patients with anxiety, major depression and suicidal ideation receiving anxiolytic treatment}}{\text{No of patients with anxiety, major depression and suicidal ideation}} \times 100$ <p>14c)</p> $\frac{\text{No of patients with bipolar disorder and suicide risk being treated with lithium}}{\text{No of patients with bipolar disorder and suicide risk}} \times 100$ <p>14d)</p> $\frac{\text{No of patients with schizophrenia or schizoaffective disorders and suicide risk receiving clozapine}}{\text{No of patients with schizophrenia or schizoaffective disorders and suicide risk}} \times 100$
Description of terms	<u>Patient History</u> : Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.
Population	Patients at risk of suicide and mental disorders receiving drug treatment, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	80%

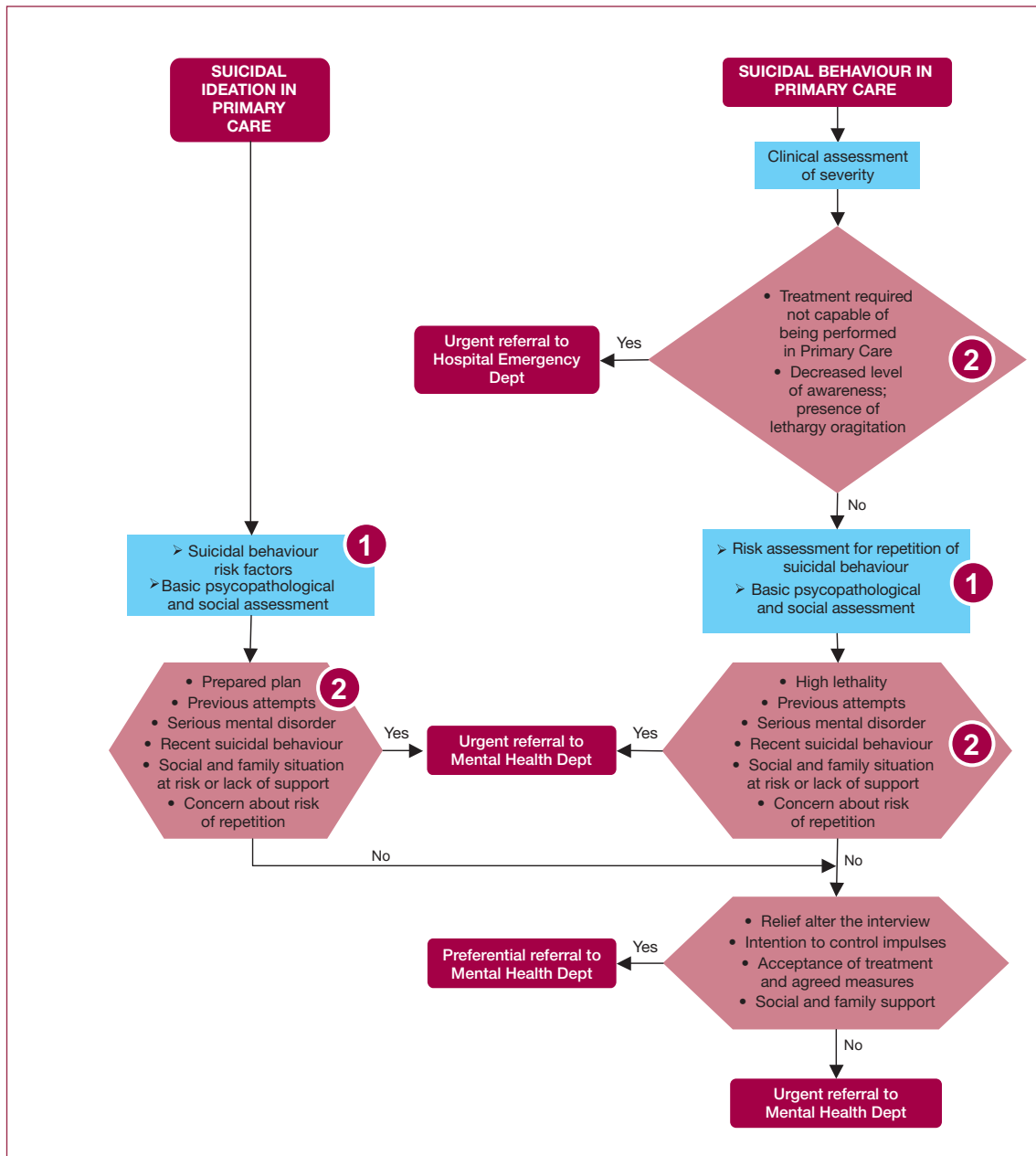
Indicator	15. Electroconvulsive therapy in patients at high risk
Justification	The decision to use electroconvulsive therapy should be shared with the patient, after taking into account factors such as diagnosis, type and severity of the symptoms, medical history, risk/benefit ratio, alternatives and patient preferences.
Formula	$\frac{\text{No of patients at high risk of suicide who receive electroconvulsive therapy}}{\text{No of patients at high risk of suicide}} \times 100$
Description of terms	<p><u>Patients at high risk of suicide</u>: Patients with major depression, schizophrenia, schizoaffective disorder and severe and persistent bipolar disorder with high intentionality and suicidal ideation.</p> <p><u>Patient History</u>: Information from the primary care and/or hospital clinical background, in paper and/or in electronic format.</p>
Population	Patients at high risk of suicide, including those patients seen in the period of time established.
Indicator type	Process
Data source	Patient History
Target	75%

Indicator	16. Training for personnel on the detection and treatment of suicidal behaviour and depression
Justification	Professional training is an effective method in the prevention of suicide. It is therefore crucial that all health personnel in primary care (16a), the emergency department (16b) and mental health (16c) who may come into contact with people at the risk of suicide acquire the knowledge, attitudes and skills appropriate for their management. In addition to specific training on suicidal behaviour, it is important to include appropriate aspects of the diagnosis and treatment of depression, as this is the mental disorder most associated with suicidal behaviour.
Formula	<p>16a, 16b, 16c*:</p> $\frac{\text{No of centres with training programmes on the detection and treatment of suicidal behaviour and depression}}{\text{Number of centres assessed}} \times 100$ <p>* Primary care, mental health or emergency departments, or all, will be included depending on the interests of the assessment..</p>
Description of terms	<u>Patients at risk of suicide</u> : Patients with suicidal ideation, serious mental disorder, recent suicidal behaviour, family situation at risk or lack of support.
Population	Health staff involved in the management and prevention of suicidal behaviour.
Indicator type	Structure
Data source	Centres evaluated
Target	100%

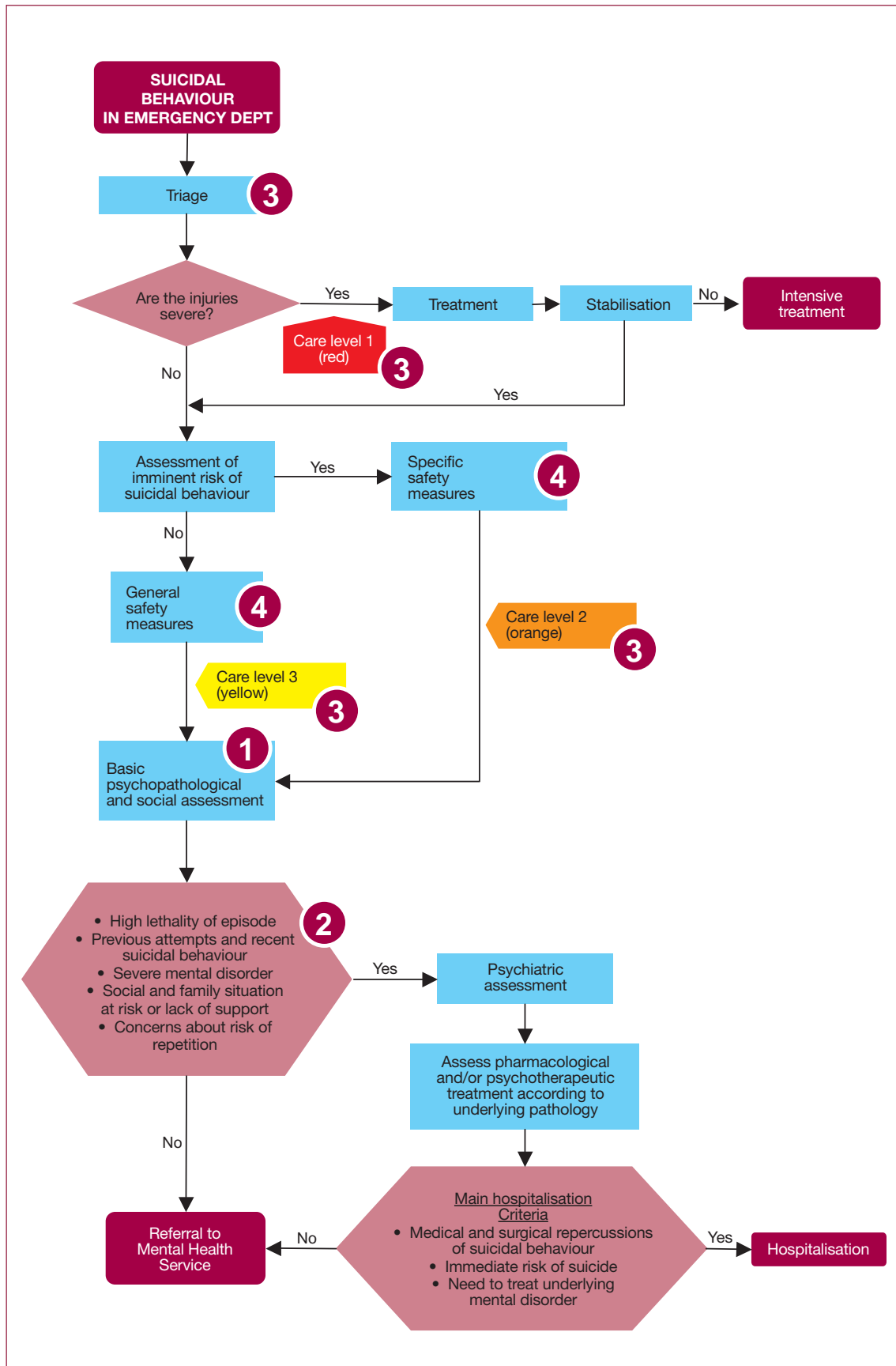
15. Diagnostic and therapeutic strategies

Below are algorithms for handling suicidal ideation and behaviour in primary care and the emergency department. The algorithm notes expand on some of these aspects.

Algorithm 1. Management of suicidal behaviour in primary care



Algorithm 2. Management of suicidal behaviour in the hospital emergency department



ALGORITHM NOTES

General

The management of suicidal ideation and behaviour must always include:

- Psychoeducation
- Individual and family support
- Coordination between different levels of health care professionals
- Attention to possible underlying disorder and comorbidity
- Involvement of family and friends in the evaluation and treatment process
- An atmosphere of privacy, confidentiality and respect.

1. Basic psychosocial assessment

After an episode of suicidal ideation or behaviour, a basic psychopathological assessment and that of the social environment must be performed, both in primary care and in the hospital emergency department. It must include a preliminary assessment of psychological, contextual and risk factors, and will be completed later by the mental health service. It may be necessary to have the assessment and intervention of social services.

The patient must be referred to a psychiatrist when fully conscious and when an appropriate psychopathological assessment can be performed.

2. Referral criteria

The final decision on referral to another initiative and the nature of this referral (either urgent or preferential) will be done after a comprehensive assessment of these criteria. It is usually considered that at least one of the criteria must be positive for deciding on an urgent referral. The reasons for this referral must be appropriately recorded in the medical record.

In some cases, the patient will need to be transferred from primary care in an ambulance, as a security measure.

3. Triage

All patients who attend the hospital emergency department because of suicidal behaviour must be classified to ensure they receive attention at least one hour after their arrival. The Manchester triage system care levels are as follows:

Level	Type	Colour	Max waiting time
1	Emergency	Red	0 min
2	Very urgent	Orange	10 min
3	Urgent	Yellow	60 min

The Horowitz Risk of Suicide Questionnaire (RSQ) could help in triage to determine the degree of need for immediate care (for those people who have not suffered any physical harm). The questions are as follows:

- Are you here because you tried to hurt yourself?
- In the past week, have you been having thoughts about killing yourself?
- Have you ever tried to hurt yourself in the past?
- Has something very stressful happened to you in the past few weeks?

4. Safety and security measures

All safety and security measures must be taken to prevent the person from escaping and/or harming himself or others. In general, patients must be asked to hand in any potentially harmful objects and all drugs must be kept out of their reach. In some cases it will be necessary to advise the security service and/or the police. There should be a specific protocol for removing potentially damaging objects and recording this process.

In addition to the above measures, when there is an imminent risk of suicidal behaviour, the need for physical restraint must be assessed, the person must not be left alone and/or a member of the hospital emergency department staff must supervise or be in regular contact with the person.

16. Dissemination and implementation

Clinical practice guidelines are tools for promoting greater quality and equity in the provision of healthcare and to assist in decision making. Their main purpose is to convert scientific knowledge into specific recommendations that will help the clinician in clinical practice, thus appropriate dissemination and implementation are crucial.

This CPG has two versions, the complete and the summary version, as well as two information documents for patients and families (on suicidal behaviour and the grief process after a suicide) and one about methodological material. The full version, information for patients and the methodology document can be accessed via the website of the Galicia Health Technology Assessment Agency (<http://avalia-t.sergas.es>) and GuíaSalud (<http://portal.guiasalud.es>).

The proposed strategies for the dissemination and implementation of this CPG are as follows:

- Official presentation of the guide by health authorities and individual delivery to potential professional users.
- Dissemination of the guide in electronic format on the websites of the health services, companies and associations involved in the project.
- Distribution of information to patients and family and friends by working with different patient associations.
- Delivery of the guide to both national and international CPG database collectors.
- Presentation of the guideline in primary and specialty care through interactive lectures and workshops with patients, family members and concerned citizens.
- Presentation of the guide in scientific activities (conferences, congresses and meetings).
- To be used in online and/or on-site training for the management and assessment of patients with suicidal ideation or behaviour.
- Publication of the guide in medical and psychological journals.
- Establishment of best practice criteria for patients with suicidal ideation and/or behaviour in programme contracts and clinical management contracts.
- Establishing clinical decision support systems that integrate the guide with selected indicators in the software used in primary care, emergency care or specialised care.
- Translation of the full version into English.

17. Recommendations for future research

Although suicidal behaviour seems to have aroused the interest of the scientific community in recent years, with a notable increase in the number of publications focusing on suicide prevention, important aspects which have not been investigated or lack conclusive evidence were found while preparing this guide. It is crucial therefore that efforts are made to encourage research and investigate these aspects.

Epidemiology of suicide

- Conduct studies to understand the epidemiology of suicide attempts in Spain and improve the collection of data on completed suicides (by sex, age, presence of comorbid conditions and other clinical and sociodemographic variables of interest).
- Risk and protective factors and suicide risk assessment
- Conduct studies to identify groups at particular risk of suicide in our environment; to improve their identification and direct preventive interventions in these groups.
- Investigate resilience and specific protective factors in relation to suicidal behaviour, and conduct studies to assess the effectiveness of suicide prevention by empowering or intervening in these protective factors.
- Conduct studies to determine the predictive validity of suicide risk evaluation scales to correctly identify and monitor patients with suicidal behaviour.
- Conduct studies on adapting and validating psychometric scales in Spanish, which have demonstrated their adequate psychometric properties for the assessment of suicide risk.
- Use scales which have demonstrated their reliability and validity and have been adapted and validated for use in Spanish in studies.

Assessment and management of suicidal behaviour in different levels of care

- Preparation or adaptation of tools to assist in the detection of suicidal ideation both in primary care and in the emergency department.
- Preparation or adaptation of tools to aid decision making in the emergency department for the referral and/or hospitalisation of patients with suicidal behaviour.

Psychotherapeutic and pharmacological treatment

- Design studies focusing on the effectiveness of pharmacological and psychotherapeutic treatment for suicidal behaviour in homogeneous samples, with well-defined variables related to suicidal behaviour, as well as those of the underlying condition.
- Conduct studies on the effectiveness of combination therapy (psychotherapy coupled with drug treatment).

- Strengthen research on the management of suicidal behaviour and its prevention in groups at particular risk of suicide, as is the case for children, adolescents and those older than 65 years.
- Identify those parts of cognitive-behavioural type therapies associated with the prevention of suicidal behaviour or associated symptoms.
- Design studies for the indication and effectiveness of intervention of the various care devices.

General prevention measures

- To promote the compilation of data dealing with suicidal ideation, self-harm and suicide attempts, as it is valuable for the development of suicidal behaviour prevention and intervention programmes.
- Conduct research on prevention programmes conducted at a nationwide level to establish lines of action to reduce suicide rates.
- Conduct studies after implementing recommendations for the media, made by organisations such as the WHO, and evaluate their impact on the rates of suicide attempts and suicides.
- Develop training programmes on the prevention of suicidal behaviour for both health and non-health personnel; and conduct further evaluation of the effect of educational activities on aspects such as their attitudes and skills, improvements in identification and management skills and a reduction in episodes of suicidal behaviour.
- Conduct comparative studies of different training methods and strategies for personnel engaged in the management of suicidal behaviour, which adequately describe the features (e.g. format and duration), components and content of such training programmes.

Screening

- Conduct screening studies of suicide risk in different fields, such as primary care, specialised care or emergency, with multicentre samples of sufficient statistical power that definitively reveal the impact of screening in the prevention of suicidal behaviour.
- Conduct screening studies in both the general population (no risk factors identified) and in individuals with a known suicide risk or age groups where there is greater risk, such as adolescents and adults.

Risk Groups

- Conduct research on the relationship between suicidal behaviour and situations with a particular risk (mental disorders, chronic illness, pain, disability, domestic violence and social isolation) and suicide prevention interventions in these groups, associated with a subsequent assessment of their effect in reducing rates of attempted and completed suicides.
- Design studies to establish the existence of the relationship between different professions and suicidal behaviour and any causative factors for this relationship.

Interventions after suicide (Postvention)

- Conduct studies using qualitative methods to investigate the experiences of families and friends, as well as primary care or specialised practitioners, involved in the treatment or follow-up after a person has committed suicide.
- Conduct studies on the effectiveness of interventions on family and friends after a suicide, for variables such as the evolution of grief, the presence of mental disorder and the prevention of suicidal behaviour.
- Perform these studies of interventions and their different formats (e.g. group or individual) after a suicide in different areas, such as school, the family or community.

Annexes

Annex 1. Information for patients and relatives on suicidal ideation and behaviour



SUICIDAL BEHAVIOUR

Information for patients, family and friends

CONTENTS

1. General information

- 1.1. Questions about suicide
- 1.2. What are the myths and misconceptions about suicide?
- 1.3. What are the warning signs of an imminent suicide attempt?
- 1.4. What events or circumstances could lead to suicidal behaviour?

2. Specific information

- 2.1. INFORMATION FOR PATIENTS with suicidal ideation
- 2.2. INFORMATION FOR FAMILIES AND FRIENDS
 - 2.2.1. WHAT YOU CAN DO if you see warning signs and/or suicidal ideation in a relative or close friend?
 - 2.2.2. WHAT TO DO AND WHAT NOT TO DO if a family member or friend has possible suicidal thoughts?

This information was compiled from the knowledge available in the scientific literature at the time of publication.

Acknowledgements

The Clinical Practice Guideline development group would like to thank José Luis Iglesias Diz and Luis Iglesias Fernández for the illustrations, and especially to all patients and their families who have collaborated in the preparation of this material.

Introduction

The document you are holding aims to provide information about one of the most serious health problems in recent years: suicide.

Data published in 2010 showed that suicide was the leading cause of violent death in Spain in 2008, surpassing car accidents. Since then, it has remained the leading cause of violent death. However, unlike with accidents, there seems to be no reaction towards suicide from society, possibly because knowledge about it has not been reported properly or objectively, and many myths and misconceptions still persist about it.

Addressing the issue of suicide is not easy, as it involves many factors. It is also relatively easy to rely on stereotypes about suicide, and on myths or moral arguments that do not help the person or family. However, we should not be indifferent to the magnitude of this problem and should look to have a positive influence on suicide, which is precisely the goal of the following pages.

The information provided is written for those people suffering, for their loved ones close to them and for professionals. The opinions expressed here are not personal ones, but are the results and conclusions drawn from scientific studies selected for their quality and neutrality.

We hope you find it of help and that it meets the needs of those who read it and apply it to themselves or others.

1. General information



1.1. Questions about suicide

Who are the people may be at an increased risk of suicide?

Several factors could influence an attempted or consumed suicide, although the fact that they are present does not mean it will happen. The most common are the following:

- Having a previous suicide attempt
- History of depression or other mental disorder
- Drug or alcohol abuse
- Family history of suicide or violence
- Having a physical disease or feeling a sense of hopelessness⁴
- A history of sexual abuse in childhood
- Impulsive or aggressive tendencies



⁴ Although it is a difficult word to define, we could say that a person with a sense of hopelessness believes that their problems or needs will not be resolved in the immediate future.

What type of behaviour does a person who wants to commit suicide show?

People who want to commit suicide often have changeable emotions, in thoughts, habits and habitual behaviour.

Among these changes are:

- Sadness
- Thoughts of suicide
- Writing a suicide note
- Giving away valued possessions
- Isolation
- Increased use of alcohol, drugs or other addictive substances
- Presence of sleep and appetite disorders



Can the risk of suicide be inherited?

Family and genetic factors may contribute to an increased risk of suicide. Among family factors are a lack of support, low socioeconomic and educational level or history of suicide in the family seem to increase the risk of suicide.

However, this does not mean that suicidal behaviour is inevitable for individuals with this genetic or family history; it just means they may be more vulnerable and should take steps to reduce their risk, such as requesting help and treatment at the first sign of alarm.



Does depression increase the risk of suicide?

Although most people with depression do not commit suicide, suffering depression increases the risk of suicide, especially if it is severe. About 60-90% of people who commit suicide have symptoms of depression.

Does the use of alcohol and other drugs increase the risk of suicide?

The abuse of alcohol or other drugs is associated with an increased risk of suicide. This abuse is often common among persons who are impulsive, have a lot of social and economic problems, and among people with high risk behaviour that can often result in injury.



What does “copycat suicide” or “suicide contagion” mean?

Imitating suicidal behaviour can occur when a person is informed that someone they know (a family member, friend or work colleague, for example) has committed suicide or tried to. If this person is in an unstable or difficult situation, this event may lead to their own attempted suicide, by imitation.

In addition, the way the media treat suicide can encourage a “contagion effect”. Reports of a suicide with detailed information, or that provided in a sensationalistic or admiring fashion (e.g. suggesting courage or romance) may lead to imitative behaviour, especially in adolescents and young adults. This, however, does not occur when the information is focused on raising awareness and preventing suicide.

How can I help a person who has attempted suicide but seems to do it only to attract attention?

A suicidal act must not be dismissed as the act of a person trying to attract attention. Everyone who makes a suicide attempt would like to express that something is wrong, that we should realise that they feel bad and that they are unable to adapt to what life demands of them.

How can the family or friend of a person who has committed suicide be helped?

The first thing to do is allow them to express their grief and their emotions. The mourning for a person who has committed suicide is often accompanied by feelings of guilt, the search for reasons why he did it, the feeling that it is a stain on the family and many more emotions. Overcoming this situation can take two years or more.

Is it possible to predict suicide?

Currently, there is no definitive measure to predict suicide. Although researchers have identified factors associated with an individual with a high risk of suicide; although, in fact, very few people with these factors actually attempt suicide. Suicide is relatively rare and it is difficult to predict which people with risk factors will eventually commit suicide.

What can the media do when reporting a suicide?

The media can minimise the risk of contagion by providing concise information on suicides. The news about a suicide should not be repeated, as prolonged exposure can increase the chance of contagion in vulnerable people. Suicide is the result of many factors, so that the report should not give simplistic explanations, such as a recent negative event in the life of the person. Nor should a detailed description of the method of suicide used be disclosed to glorify the victim, or suggest that the suicide was effective in achieving a personal goal.









The same recommendations should be applied to information disclosed on the Internet, given the mass and daily use of this source of information.



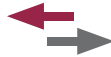


1.2. What are the myths and misconceptions about suicide?















 <p>THE PERSON WHO WANTS TO KILL HIMSELF NEVER SAYS SO</p>	 <p>This leads to not paying attention to people who express thoughts of suicide or threaten to commit suicide. Nine out of every ten people who commit suicide make their aims clear and the other one at least hints at an intention to end their life.</p>
 <p>THE PERSON WHO THREATENS TO KILL HIMSELF NEVER DOES SO</p>	 <p>This leads to not taking threats to commit suicide seriously; erroneously regarding them as blackmail, manipulation or posturing, for example. Whoever commits suicide may already have expressed what was happening with words, threats, gestures or behavioural changes.</p>
 <p>WHOEVER COMMITS SUICIDE IS MENTALLY ILL</p>	 <p>This is an attempt to regard suicide and mental illness as synonymous. The mentally ill commit suicide more frequently than the general population; however, it is not necessary to have a mental disorder to do so. Every person committing suicide is a sufferer.</p>
 <p>SUICIDE IS INHERITED</p>	 <p>Believing that what is determined by heredity is impossible to modify. Although suicide may have a genetic influence, there are a number of protective factors that can be strengthened (e.g. problem-solving skills, having self confidence and social integration).</p>

Myths



Facts

 <p>TALKING ABOUT SUICIDE WITH SOMEONE WHO IS AT RISK CAN ENCOURAGE HIM TO DO IT</p>	 <p>This is the false belief that talking about suicide with those at risk of committing it instils fear into them. It has been shown that talking about suicide reduces the risk of carrying it out, and may be the only chance that this person has of analysing his tendency towards self-destruction.</p>
 <p>A SUICIDAL PERSON WANTS TO DIE</p>	 <p>This aims to justify the actions of someone who tries or succeeds in committing suicide. The suicidal person is often in an ambivalent position: he wants to die if his life continues in the same way, but he wants to live if small changes occur in it.</p>
 <p>WHOEVER TRIES TO COMMIT SUICIDE IS A COWARD</p>	 <p>The aim here is to prevent suicide by equating it with a negative personality trait. People who attempt suicide are not cowards, but people who are suffering.</p>
 <p>WHOEVER TRIES TO COMMIT SUICIDE IS BRAVE</p>	 <p>This aim is to equate suicide with a positive personality trait, which hinders its prevention by making it synonymous with an imitable attribute such as bravery. Personal attributes such as cowardice or courage are not quantified or measured in terms of the number of times that someone tries to take or respect their own life.</p>
 <p>ONLY OLD PEOPLE COMMIT SUICIDE</p>	 <p>The aim is to prevent suicide as the cause of an early death in children and adolescents. The elderly make fewer suicide attempts than younger people, but use more effective methods when they do so, resulting in greater lethality.</p>
 <p>IF YOU CHALLENGE SOMEONE TO COMMIT SUICIDE THEY WON'T TRY IT</p>	 <p>Challenging the resolve of a person in a suicidal crisis is to put a vulnerable person in even more danger. Challenging a suicidal person is irresponsible, as it directed against a vulnerable person whose coping mechanisms have failed, as shown by the predominance of their self-destructive tendencies.</p>

Myths



Facts



**THE MEDIA CANNOT
CONTRIBUTE TO
THE PREVENTION
OF SUICIDE**



The aim here is to continue reporting sensational news, with the main objective to sell, regardless of the consequences of the message delivered.

The media can be a valuable ally in the prevention of suicide if they focus properly on the subject and take into account the suggestions of experts: by reporting warning signs of a suicide crisis; mental health initiatives for those who can take advantage of them; and risk groups and simple measures that enable people to know what to do if they detect a person at risk of suicide.



1.3. What are the warning signs of an imminent suicide attempt?

A warning sign indicates if a person is having serious thoughts of committing suicide and may even be planning how to do it.

The warning signs could also be a call for help and provide family, friends, acquaintances or health professionals with an opportunity to intervene and prevent that person from doing so.

If you notice someone you know acting strangely and out of character, it is important to talk to him about what may be happening.



The following types of behaviour are common among people who are considering suicide:

- Threatening to harm or kill themselves
- Looking for ways of committing suicide or talking about a suicide plan
- Talking or writing about death, dying or suicide (especially when the person is not normally like this or is acting very strange)
- Expressing feelings of hopelessness
- Expressing feelings of anger, rage or revenge
- Engaging in behaviour that involves unnecessary risk or which is irresponsible
- Expressing feelings of being trapped, of not seeing a way out
- Increasing use of alcohol or other drugs
- Withdrawing or avoiding contact with friends, family or his environment
- Being anxious or agitated
- Having abnormal sleep patterns, such as sleeping very little or for too long
- Having dramatic changes in mood, such as feelings of joy after a long period of sadness or depression
- Giving away their possessions or saying goodbye to family and friends
- Losing interest in many activities that they previously took part in
- Saying there is no reason to live and that life is an absurdity

If you notice one or more of the above warning signs, it is important to act quickly, especially if the person shows several at the same time, by talking to the person and seeking help and support from others.





1.4. What events or circumstances could lead to suicidal behaviour?

A precipitant is an event or life situations that can lead to severe stress at a particular moment for a person. These precipitants can be seen as the straw that breaks the camel's back and could make someone who was previously thinking about killing himself actually try to do it.

Some examples of events and circumstances that can act as **precipitants** are:

- An argument with an important person or a loved one
- The break-up or loss of a loving relationship
- The suicide of a relative, friend or a public figure
- Abuse of alcohol or other substances
- A report on a suicide or suicide methods
- The appearance of worsening of a mental disorder or physical disability or accident
- Unexpected changes in life circumstances
- Experiencing a traumatic life event, such as abuse, harassment or violence
- Loss of social status, or extreme episode such as the loss of respect from others

For more information

- VISIT YOUR HEALTH CENTRE
- Emergency telephone number: **061** or **112**
- Spanish Confederation of Families and Persons with Mental Illness (provides information, support and psychological and social resources), www.feafes.com.
- Crisis helpline (open 24 hours a day, for main Spanish population centres), www.telefonodelaesperanza.org.
- www.suicidioprevencion.com
- www.redaipis.org



2. Specific information



2.1. Information for patients with suicidal ideation

What can you do if you have begun to think about committing suicide?

Below is a series of important recommendations for anyone having thoughts of suicide:

- If you think there is no other solution apart from suicide, it does not mean that there isn't, but only that **you simply cannot see it at that time**. Another person may help you find this solution.



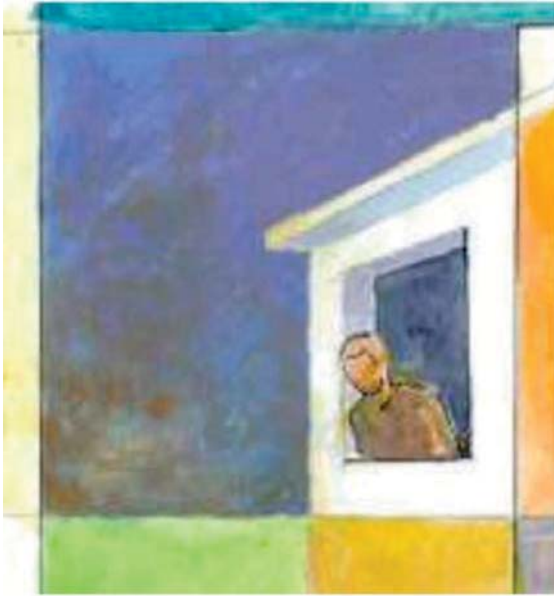
- **Get help as soon as possible.** If you think you cannot take any more, talk to a friend or family member you trust, go see your doctor or call a telephone helpline.
- **Talk about your suicidal thoughts.** Don't keep them to yourself.
- **Postpone any decision** about suicide. If you postpone your decision just 24 hours, things get better and you will feel more able to cope with your problems.
- **Don't be alone**, until your suicidal thoughts begin to diminish.
- **Crises are temporary.** Many people have thought about suicide at some point in their lives, but choose to live because they realise that crises are transient, while death is permanent.
- Most people who contemplate suicide don't really want to die, they **just want to end their suffering**. Once their suffering is over, they are happy they did not succumb to these thoughts.

- **Think about people or things important to you**, which have helped you overcome tough times in the past. These are precisely the things or people that make life worth living.
- **Don't suffer alone**. Try to get out or invite family and friends to your home, even if you don't enjoy their company as before. It's important to keep in touch.
- **Focus on one day at a time**. Thinking too far ahead can be overwhelming if you feel you have too many problems and are not able to face them.
- **When you feel discouraged, don't take drugs or alcohol**. Many substances make you feel even worse. Anyway, they don't help to solve your problems and can lead you to do things you normally would not.
- **Stay healthy, try to get enough exercise and eat well**. Exercise can help you feel better by releasing certain substances in the brain. Eating well helps you to feel more energetic and more able to handle life's difficult moments.
- **Go and see your doctor or specialist to discuss support or treatment**. Discuss your thoughts and feelings about suicide with your doctor. Discuss ways in which you can stay safe and make sure you receive the best treatment and care.
- **Keep a diary** to jot down things which are important for you. Write your feelings down and read them when suicidal thoughts appear.

For more information



- VISIT YOUR HEALTH CENTRE
- Emergency telephone number: **061** or **112**
- Spanish Confederation of Families and Persons with Mental Illness (provides information, support and psychological and social resources), www.feafes.com.
- Crisis helpline (open 24 hours a day, for main Spanish population centres), www.telefonodelaesperanza.org.
- www.suicidioprevencion.com
- www.redaipis.org



2.2. Information for families and friends

WHAT CAN YOU DO if you see warning signs and/or suicidal ideation in a relative or close friend?

- **Be alert.** If someone you know is showing some or all of the warning signs for suicide and/or has experienced a precipitating factor, you should act immediately to ensure their safety.
- **Stay calm.** If someone you know is showing warning signs or has reached their limit, try not to overreact.
- **Talk to that person.** It shows that you understand that he feels hopeless or is in a difficult and fragile position at that moment. Let him know that help is available, that he won't always feel that bad, and that with the right help he should be able to handle his problems and feel better in the future.
- **Remove access to any method of suicide and never leave the person alone.** If in doubt about the specific risk, talk to her and get help from other people.
- **Assess the risk.** Talk to the person who might be at risk of suicide and assess the situation. Does she have a plan to kill herself? Does she have the means to carry it out? If so, the person has a high risk of suicide. Get help immediately by calling **061** or **112** and help them stay safe.



- **Talk to other people who know her.** If you think someone may have thoughts of suicide, talk to other people who know her to see if they have also noticed something out of the ordinary or if they think the same as you.
- **Offer help with practical tasks.** This can give the person the opportunity to do other important tasks; spend some time trying to resolve the situation or giving her some time off, which is something everyone needs. Accept that the help you offer may be rejected, because sometimes people find it difficult to accept support or do not want to admit they need help.
- **Know where to get help.** Get information about the places and services to get support in your community and your environment. Keep a list of contact numbers and opening hours of these services. Provide practical help so that the person at risk of suicide is given proper care for their needs and situation. Have a backup plan if the service is not available or there is a long waiting list.
- **Take care of yourself too.** Helping someone cope with trauma and stress can be very tiring and leave you exhausted. Find time for some of the things you enjoy and seek out others who can help to support those most in need.

WHAT TO DO AND WHAT NOT TO DO if a family member or friend has possible suicidal thoughts?



WHAT TO DO

If a family member or friend has possible suicidal thoughts

DO SOMETHING RIGHT NOW

Take the warning signs seriously and ask the person if they are considering suicide and if they have a plan. Seek help urgently if you need it by calling 112 or 061 or take the person to the nearest hospital emergency department. ✓

TALK ABOUT SUICIDE

Talking about suicide will not put that idea into their head, and you also encourage them to talk about their feelings. A detailed plan indicates a higher risk. Do not agree to keep it a secret from the time when the person's physical safety is your main concern. ✓

ACCEPT YOUR OWN REACTION

You may feel afraid or prefer to ignore the situation. If you're finding it difficult, enlist the help of someone you trust. ✓

BE THERE FOR HIM OR HER

Spend time with the person, encourage them to talk and about how they're feeling; find out where you can get support, and encourage the person to accept some help at a later date. ✓

ACCEPT WHAT THEY ARE SAYING

Maintain direct, open and honest communication with this person. Allow the person to express their feelings and express their worries without you judging them. Say things like "I'm here to help", "let's talk" and "I'm here for you". ✓

ADOPT SAFETY MEASURES

Ask yourself how much the person is thinking about suicide. If you are very concerned, do not leave the person alone. Remove any available means of suicide, including weapons, ropes, belts, drugs, alcohol and other drugs, as well as access to a vehicle. ✓

DECIDE WHAT TO DO

Discuss what decision to make together. You might need to have more help (colleagues, parents, close friends or other people) to convince the person to seek professional help. Just sharing that information means you can make sure the person has the help and support they need. ✓

ENCOURAGE THE PERSON TO GET HELP

Physicians in primary and emergency care
Mental health service
Social services
School counsellors, educators
Religious services
Online support services, telephone helplines ✓

ASK FOR A COMMITMENT

Ask the person to promise not to keep their problems and worries to him- or herself and to talk to someone if they begin to have suicidal ideas again. This will make the search for help easier. ✓

TAKE CARE OF YOURSELF

It is difficult and emotionally draining to help someone who is thinking about suicide. Don't do it all yourself. Find someone to talk to, maybe friends, someone in the family or a healthcare professional. ✓

STAY INVOLVED

Suicidal thoughts do not go away easily. The continued concern of family and friends is very important for the recovery of the person. Stay alert and be attentive to the person's development. ✓

WHAT NOT TO DO

If a family member or friend has possible suicidal thoughts



DON'T AVOID PROBLEMS

Do not leave the person alone if you feel their life is in immediate danger. ✗

DON'T TRIVIALISE OR CHALLENGE THE PERSON

Do not treat any threat lightly, especially if the person begins to joke about it. Do NOT underestimate the situation or the intensity of the emotions and bad feelings. Challenging the person is not going to help. Do not say things like "You can't do it", or "If you're going to do it, do it properly". ✗

DON'T SHOUT OR CRITICISE THE PERSON

Don't overreact or say he or she is a bad person. Often what they need is motivation and this is not achieved by attacking them. ✗

DON'T BE AFRAID TO ASK

Don't be afraid to ask the person why they are so sad and depressed or if they want to hurt themselves. ✕

DON'T JUDGE OR MAKE COMPARISONS

Don't tell the person he or she is a coward, or that he or she is not brave. Don't say things like "You must have done something to be like this", and blame him or her for the whole situation, or say that "other people are much better". This tends to increase feelings of guilt and discomfort. ✕

DON'T KEEP EVERYTHING A SECRET

Enter into the life of your friend and get their confidence. Choose life. ✕

DON'T GIVE SIMPLISTIC SOLUTIONS

An obvious and simple solution can help increase feelings of inadequacy, shame or loneliness in the person. ✕

DO NOT TRY TO HELP THE PERSON YOURSELF WITHOUT ANYONE ELSE'S HELP

Do not think that you know the person the best, that you will always be there for her, that you will never get tired or that other people are not required, including professionals. ✕

For more information



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Annex 2. Information for families and friends on bereavement after a suicide



THE DAY AFTER THE SUICIDE OF A MEMBER OF THE FAMILY OR CLOSE FRIEND

Information for family and friends

CONTENTS

1. The experience of grief.

- 1.1. What is grief?
- 1.2. What are the most common feelings and emotions associated with grief?

2. Grief after a suicide

- 2.1. Is grief after a suicide different from other forms of grief?
- 2.2. How I can deal with this situation?

3. Grief among children and adolescents

- 3.1. How to help a child cope after the suicide of someone close?
- 3.2. How can the school help?

4. Helping someone who is experiencing grief after a suicide

- 4.1. How can a family member or friend help someone in this situation?

The information provided is based on knowledge from the scientific literature available at the time of publication.

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Introduction

The death of a relative or close friend is one of the most stressful situations a person can experience. But when this death is a result of a suicide, it often makes the situation even more complicated; causing severe and prolonged pain which is different and unique to each person suffering it.

This document is an attempt to explain the most common reactions in a person losing a loved one or someone close to them after a suicide, and is intended to help them cope with the situation. It was prepared by professionals involved in the treatment of people with suicidal behaviour, and by patients and families, who participated in the preparation of the Clinical Practice Guidelines for the prevention and treatment of suicidal behaviour.

All the information comes from studies conducted on people who have experienced this situation, the recommendations of national and international guidelines, self-help books and the experience of professionals involved.

We hope this information is helpful to you and is a help in easing the grief felt.

1. The experience of grief



1.1. What is grief?

Grief is the emotional and physical reaction to the death of a loved one, and is a normal response to this loss.

There is no right way or wrong way to grieve and each person copes in his or her own way. It depends on many things, such as the relationship with the deceased, how the death occurred, past experiences and the nature and existence of the family or social support.

There is no single way to grieve. Although each person is different and reacts in their own way, 3 typical stages have been described for people who lose a loved one.

These phases or stages are:

- Stage 1:** A feeling of anger, confusion, anxiety or light-headedness is common, as well as a belief that what is happening is not real and to deny the feelings. The person may also distance themselves emotionally to protect themselves or even feel relief.
- Stage 2:** The person feels lonely, sad and depressed. Other emotions are also frequent, such as despair, aggression, guilt and a feeling that life has lost its meaning. There may also be problems in eating and sleeping.
- Stage 3:** There is a gradual acceptance of the loss; the person begins to feel better and not to think so much about what happened, and the feelings are less intense. Little by little, they start to do things they did not do before and establish new relationships.



1.2. What are the most common feelings and emotions associated with grief?

The most common emotions felt by people going through this situation are described below. You may recognize some of them or feel different ones, although these described are the most frequent.

Shock

The death of someone close can be a great shock, especially when it is unexpected. In this situation, it is common to feel shaky, numb or insensitive and out of touch with reality. It is also normal to have unpleasant physical sensations such as shortness of breath, dry mouth, nausea, tightness in the throat and chest, fatigue, and an overwhelming feeling of emptiness. This sense of shock can last from days to weeks after the death.

Daze

Sometimes in these situations people very often feel that everything is a dream, or feel out of touch with reality. Many people are not able to mourn at the funeral or express their feelings, and constantly think that this situation cannot be happening. These feelings are a normal reaction to protect people against such a huge loss.

Confusion

It is very normal to feel confused and unable to concentrate after the loss of a loved one. Some people also have the feeling that they have lost control of their lives and do not feel able to make decisions. You must give yourself time to accept the death and the fact that the person is not coming back. Talking the situation over with others and holding or attending the funeral or other rituals can help in accepting what has happened and to accept it little by little.



Search

After the initial shock and after beginning to accept the loss, it is normal for people to look for the deceased, repeating their name or dreaming about them; and having the feeling of seeing them or hearing the person calling them.

Anguish and despair

Sometimes it is normal to feel despair at not being able to see or talk to the deceased. These thoughts can be uncontrollable and occur often and there may be a need to talk about them.



Sadness

After the loss of a loved one it is normal to feel very sad. You may prefer to be alone and have the need to cry. For many people, crying is very positive, as it helps to reduce stress and give vent to the sadness felt. However, not wanting or feeling the need to cry is also perfectly normal, so do not feel guilty if this is your reaction.

Anger

After the death of a relative or friend, many people may feel anger or rage. You may wonder “How can this happen to me?”, and this can lead to a great sense of anger.

This anger may be general or directed at people you think did nothing to help (e.g. doctors, even family and friends). You may also feel angry with the person who committed suicide for abandoning you. Other people feel bad about themselves because they feel they did nothing about it. All these feelings are normal; you must try to control the anger and think that it is often very difficult to prevent the death.

Blame

Thinking that you did nothing to prevent the death of a family member is very painful. Feeling guilty is very common in families, and is one of the most difficult to overcome. Some people feel so guilty that they feel they have no right to live or ever be happy again.

Relief

If the person had been ill a long time or was suffering and was not happy, sometimes the family feels a sense of relief; and this is perfectly normal.

Fear

You may feel afraid and that you have lost control of your life and those of other loved ones. Moreover, this fear is often accompanied by physical symptoms, such as difficulty breathing or feeling your heart racing. These feelings diminish over time.



To overcome the grief felt, there are 4 important things you must do:



WHAT TO DO

To overcome grief

ACCEPT THE LOSS

It is important to try to accept that the person is not coming back. Talk with others about how you are feeling. ✓

WORK WITH THE GRIEF AND EMOTIONS

You must take time to understand and accept emotions and feelings. Trying to avoid these feelings will prevent you from overcoming the situation. ✓

LEARN TO LIVE WITHOUT YOUR LOVED ONE

This may mean having to do things that you did not do before or learn new skills. You must try to rebuild your life and get back to normal daily life, return to work and little by little start doing the things you did before. ✓

CARRY ON

You must think about the future without the deceased and modify future plans to adapt to the new situation. ✓

For most people, the pain gets less and less the more you return to a normal life. However, sometimes the grief is complicated and you need to go to the doctor for a check-up and assess the need for any treatment.

You must go to the doctor when the pain is severe, lasts for a long time and if you experience the following:

1. Inability to accept the death of the loved one.
2. Persistent ideas about death.
3. Feelings of guilt.
4. Excessive worry about the death of your loved one.
5. Inability to return to your normal daily life.
6. Flashbacks over the death of a loved one.
7. Anxiety, irritability or aggressiveness.
8. Difficulty sleeping or concentrating.
9. Increased consumption of medication, alcohol or any other drugs.
10. Inability to relate to others.

For more information



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- www.redaipsis.org

2. Grief after a suicide



2.1. Is grief after a suicide different from other forms of grief?

Nobody is ready to receive the news that a loved one has committed suicide.

The grief after losing someone close is very difficult to bear, regardless of the cause of death. But when the cause of death is suicide, it is harder still for people to overcome the grief of losing a loved one.

For those lamenting the passing of a loved one, sometimes the grief experienced after a suicide is different from that after a natural or accidental death. It may sometimes last longer, and the shock, isolation and guilt felt may be greater than after other deaths. Typically, the person considers the character of the deceased and looks for an explanation. All these are normal emotional reactions expressing suffering.

On other occasions, some people close to the person who has committed suicide may have negative or guilt-inducing attitudes about the suicide; contributing to feelings of being isolated or stigmatised.



Often people close to the deceased will ask these questions and experience some of these situations:

- **Wondering why:** One of the first ideas that occurs to people is the reason for the suicide. Normally, the family tries to find an explanation for, or meaning behind, the death of the person, which may lead to many questions being raised and tense situations occurring within the family. Many people find it very difficult to accept that they will never know the real reason for the death of their loved one.
- **Flashbacks of the deceased:** One of the most common things among people close to the deceased is to repeatedly bring images of the person who has committed suicide to mind, and it is often worse for people who find the body. Typically, these images become less frequent over time as the person begins to accept the situation.
- **Could we have done something?** This is a normal reaction among relatives; wondering if they could have done something to prevent the suicide of a loved one or if something they did or said could have had anything to do with it. You must always remember that, although there are some signs that may be a warning of the risk of suicide, it is difficult to prevent - even for professionals.
- **What do I tell people about the cause of death?** For many people, talking openly about the suicide is very hard; but trying to hide it may be worse in the long run. It is not necessary to give detailed explanations to another person, but it is not good if you constantly feel you have to hide the cause. It is a decision you must make for yourself.
- **Feelings of rejection and abandonment:** The feeling of being abandoned or rejected by the deceased or that it seems a selfish thing to do is quite normal. Bear in mind that people who commit suicide are normally so preoccupied with their own problems that they are unable to think of others.



- **Worrying about committing suicide yourself:** Many people are afraid of being at risk of suicide, and may even consider it themselves. You must not to be afraid to talk about it with friends or family or mention it to your doctor.



- **Stigma:** Although attitudes towards suicide are changing, there is a lot of ignorance and occasionally intolerance regarding it. Many people are unaware that suicidal behaviour is a serious public health problem and one of the leading causes of death worldwide. The silence of many people about suicide or how others behave can make you feel guilty and not want to be with other people. However, most of the time, many people do not know what to say or how to react.
- **Isolation:** You may think that no one understands you and that you need to be alone. Although moments of solitude are necessary, it is important to relate to others and not to retreat into oneself. Being with others helps you get back to normal.

If you think you are not capable of coping alone or that these feelings are not improving with time, contact your health centre or seek help.

2.2. How can I deal with this situation?



WHAT TO DO

To overcome grief about a suicide

TAKE SOME TIME OUT FOR YOURSELF EVERY DAY

It is important to set aside time for yourself each day, if possible at the same time and in the same place, so you can mourn, remember the dead person, pray or reflect. ✓

WRITE

Keep a diary to record your feelings, thoughts and memories. This can help you gain some control over your emotions. ✓

DO SOME EXERCISE

Walk for at least 20 minutes every day. Generally, it will help you feel better and improve your sleep. ✓

REDUCE STRESS

Meditation, relaxation techniques, massage or listening to music can help reduce emotional and physical stress over the loss. ✓

LOOK AFTER YOURSELF

Try to get enough rest and eat well. Plan one day at a time, no more. When you can, start spending time doing things you enjoy. It is not disloyal and helps you cope better with the grief. ✓

EXPRESS YOUR FEELINGS

Some people find it helpful to do creative activities, such as poetry or painting, to express their feelings. Other activities, such as sewing, cooking, gardening or carpentry, may also be helpful. ✓

SHARE YOUR EXPERIENCES

Joining support groups or reading self-help books about similar experiences are often the only way to share the deepest grief with others who have gone through the same experiences. ✓

COMMUNICATE YOUR NEEDS

Ask your family or friends for what you need (e.g. to be alone). This makes it easier for them to help you. ✓

LEAVE IMPORTANT DECISIONS TILL LATER

Try to avoid making important decisions, such as moving house or getting rid of personal possessions, immediately after such a death. You may not be thinking clearly and may do things you later regret. ✓

DAY GIVE YOURSELF TIME

Like a deep wound, it takes time to heal and recover from the suicide of someone close to you. ✓

RESPECT THE CHOICE OF THIS PERSON

While you may not agree, feel hurt or do not understand the person's choice, you could not choose for him or her. ✓

DON'T FEEL GUILTY

Even a professional finds it very difficult to prevent a suicide. Don't feel you could have changed the outcome if you had said or done something different. ✓

GRIEF IS NOT AN ILLNESS

It does not mean that you're crazy. Profound grief is the normal reaction of a human being sensitive to the most difficult experience that a person can go through. ✓

DO NOT RESORT TO DRUGS TO EASE THE PAIN

Try not to use alcohol or drugs as a way to ease the sadness. While it may provide relief in the short-term, it can impede the grieving process and cause depression or other disorders. ✓

SEEK PROFESSIONAL HELP

If time passes and you are still feeling anxious or depressed (e.g. sleep problems, lack of appetite, loss of energy and interest in things, suicidal thoughts), it is important to seek help from your doctor. ✓

DON'T LOOK FOR EXPLANATIONS

Most of the time, however much you try, you can never completely understand the reasons that led a loved one to commit suicide. ✓

For more information

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3. Grief among children and adolescents



3.1. How to help a child cope after the suicide of someone close

Not all members of the family experience bereavement in the same way, with the same stages or at the same time. Each person needs time and space of their own to recover from the grief and, in the case of children, it can be difficult to know how to help them cope with the loss.

Children and adolescents are particularly vulnerable, as they have a different way of expressing their feelings, but that does not mean we should think they do not feel pain. Also, what children understand about death depends very much on their age, their life experiences and personality.

Below is some advice on how to handle the situation:

- Depending on the circumstances and the maturity of the child, you should be straightforward and talk honestly about what happened, without necessarily giving too many details.
- It's best to avoid phrases like “gone to sleep” or “in a better place” because these phrases can confuse children.
- The smallest children will hardly understand what death means. It may be necessary to explain the meaning of something definitive and irreversible a number of times with language appropriate for their age.
- Do not be tempted to hide them from reality under the pretext of saving them from suffering.

- You must enable the child to talk about their feelings and not to withhold them. Reading stories can help children communicate their emotions.
- Children can act very differently from adults and can express their feelings in many ways: e.g. irritability, nightmares or mischief; and sometimes with somatic symptoms: vomiting, pain, decreased appetite or with the appearance of regressive behaviour: e.g. wetting themselves or talking badly.
- It is normal for them to feel guilty and abandoned, so it is important to prevent this by making them feel loved, assuring them that they won't be left alone or that other people they are close to will die suddenly.
- Some children believe that death is “contagious”. So it is essential to provide security, the certainty of being at their side and reinforcing physical contact by approaching them, sitting them close to you, cuddling them and listening to them.
- Teenagers have difficulty expressing their feelings. It is therefore necessary to watch them carefully for any lifestyle changes: e.g. at school (school failure), withdrawal from friends and family, abuse of alcohol or other drugs, promiscuity, fighting or doing high-risk sports; any of which may indicate the need to seek out specialist help.
- If the situation is very difficult for you, let others help. Talk to your doctor and teachers; they can guide you on how to deal with the situation and may be of great help.



3.2. How can the school help?

The most common reactions in childhood after the suicide of someone close to them are a change in behaviour, emotions and decreased academic performance.

This depends partly on how the situation in their immediate environment develops, so adequate stabilisation of their family and school environment can greatly promote recovery.

Children and adolescents who experience the suicide of someone close may need support in school. If you are a teacher, you can help as follows:

- Try to maintain a normal environment
- Find some time to talk to the child
- Talk to other students about what happened and how they can help at a time when the student involved is absent
- Take particular care on special occasions like Christmas, birthdays or anniversaries
- See if there are any changes in behaviour that may be indicative of a problem
- Be aware of the warning signs that indicate a suicide risk
- Trying to talk openly about the death is more advisable than avoiding the subject.



If any significant difficulties arise, a specific medical and psychological evaluation may be required.

For more information

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4. Helping someone who is experiencing grief after a suicide



4.1. How can a family member or friend help in this situation?

Losing a loved one after a suicide leads to a large number of emotions and concerns. Often, the situation is beyond the people who suffer it and they need to cry or shout, may become aggressive, be moody and irritable, while at the same time they may want to be alone and not to talk.

What to do

- Be patient and try to understand that the situation your relative or friend is going through is very difficult.
- Do not try to attach any blame for what happened nor make judgments about anyone.
- Treat the person like any other who has lost a loved one.
- Make contact with the person as soon as possible. Although some people prefer not to have visitors, show your feelings as soon as possible, because it is important they know you are concerned and have offered to help if needed.



- Allow the person to express himself and vent his feelings. One of the most important things to do is to listen.
- Let her speak when she is ready to do so.
- Sometimes, simple things like a hug or going for a walk with them can help a lot.
- You can also help by lending a hand with daily chores, such as cooking, caring for children or helping with paperwork.
- Continue offering help over time, not just in the first weeks. Help may also be needed on special dates like anniversaries, birthdays and other important dates in the lives of these people.
- If you think they need help, go with them to the doctor or advise them to go. The doctor can guide you on what is the best option in your case.
- If you are also having a bad time due to the suicide of the loved one, consider that you too may need support, to talk to other friends, family or health professionals about how you are.

What to say

- It is better to say “I don’t know what to say” than to avoid talking about what happened.
- Say you are sorry as soon as possible.
- Ask the person how he feels and if he needs anything.
- Offer to talk or to help where necessary.
- You can talk about the deceased and how important this person was to you.
- Avoid asking about details of the death.
- Do not pass judgement on the situation nor give opinions on the possible causes or seek explanations for the suicide.



For more information



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Annex 3. Abbreviations

ADAPT	Adolescent Depression Antidepressant and Psychotherapy Trial
AEMPS	Spanish Agency for Medicines and Healthcare Products
AEN	Spanish Association of Neuropsychiatry
AEPCP	Spanish Association of Clinical Psychology and Psychopathology
AGREE	Appraisal of Guidelines, Research and Evaluation for Europe
AIPIS	Association for Research, Intervention and Prevention of Suicide
AMAFE	Madrid Association of Friends and Relatives of People with Schizophrenia
ANESM	National Association of Mental Health Nursing
APA	American Psychiatric Association
BDI	Beck Depression Inventory
BHS	Beck Hopelessness Scale
BPRS-24	Brief Psychiatric Rating Scale-24
CBT	Cognitive Behavioural Therapy
CI	Confidence Interval
DARE	Database of Abstracts Reviews of Effectiveness
DBT	Dialectical Behavioural Therapy
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders-IV
ECT	Electroconvulsive therapy
EMBASE	Excerpta Medical Database
EMEA	European Medicines Agency
ESEMeD	European Study of the Epidemiology of Mental Disorders
FAECAP	Federation of Associations of Community Nursing and Primary Care
FDA	Food and Drug Administration
FEAFES	Spanish Federation of Associations of Families and Persons with Mental Illness
FEMASAM	Madrid Federation of Pro-Mental Health Associations
FT	Family Therapy
CPG	Clinical practice guideline
HoNOSCA	Health of the Nation Outcome Scales for Children and Adolescents
HRSD	Hamilton Rating Scale for Depression
HTA	Health Technology Assessment
INE	Spanish National Statistics Institute
InterSePT	International Suicide Prevention Trial
IPT	Interpersonal Therapy
IS PATH WARM	Ideation, Substance abuse, Purposelessness, Anger, Trapped, Hopelessness, Withdrawing, Anxiety, Recklessness, Mood

K-SADS-PL	Kiddie-Schedule for Affective Disorders & Schizophrenia, Present & Lifetime Version
MACT	Manual Assisted Cognitive Behaviour Therapy
MAOI	Monoamine oxidase inhibitor
MAT	Andorra Triage model
MTS	Manchester Triage System
NHS	National Health Service
NHS-EED	National Health Service-Economic Evaluation Database
NICE	National Institute for Health and Care Excellence
NIMH	National Institute of Mental Health
NZGG	New Zealand Guidelines Group
PC	Primary Care
PICO	Patient/Intervention/Comparison/Outcome or Result
PST	Problem-Solving Therapy
RCT	Randomised clinical trial
RD	Royal Decree
RSQ	Risk of Suicide Questionnaire
SAD PERSONS	Sex, Age, Depression, Previous attempt, Ethanol abuse, Rational thinking loss, Social support lacking, Organised plan for suicide, No spouse, Sickness
SEEP	Spanish Society of Psychiatric Epidemiology
SEMERGEN	Spanish Society of Primary Care Doctors
SEMES	Spanish Society of Emergency Medicine
SEMFYC	Spanish Society of Family and Community Medicine
SEP	Spanish Society of Psychiatry
SEPB	Spanish Society of Biological Psychiatry
SEPG	Spanish Society of Psychogeriatrics
SEPL	Spanish Society of Legal Psychiatry
SIGN	Scottish Intercollegiate Guidelines Network
SPS	Suicide Probability Scale
SR	Systematic Review
SSI	Scale for Suicide Ideation
SSI-W	Scale for Suicide Ideation-Worst
SSRI	Selective serotonin reuptake inhibitor
SUPRE	Suicide Prevention programme from WHO
TADS	Treatment for Adolescents with Depression Study
TRIP	Turning Research into Practice
UK	United Kingdom
US	United States of America
USA	United States of America
WHO	World Health Organisation

Annex 4. Glossary

Attempted suicide: Self-inflicted and possibly injurious behaviour without a fatal outcome, for which there is implied or explicit evidence of intentionally eliciting death. Such conduct may result in injury or not, regardless of the lethality of the method.

Befriending: A set of techniques similar to those used in supportive therapy.

Behavioural therapy: A clinical psychology approach based on the psychology of learning to explain psychological disorders and develop strategies for therapeutic change. Another feature is based on the experimental study of the principles and laws of learning.

Case control study: Observational and analytical study in which subjects are selected on the basis of whether they have or do not have (cases v controls) a particular disease or in general a certain effect. Once selected, they are investigated for exposure to a feature of interest and the proportion of those exposed in the case group is compared with those exposed in the control group. Once selected, they are investigated for exposure to a feature of interest and the proportion of those exposed in the case group is compared with that exposed in the control group.

Cluster B personality disorders: Including antisocial, borderline, histrionic and narcissistic disorders. As in other clusters, there is a degree of overlap between the component disorders, especially among antisocial and borderline personality disorders.

Cochrane Library Plus: Castilian Spanish version of the electronic journal, The Cochrane Library, the main vehicle of information for the Cochrane Collaboration. It can be accessed via the Internet and is updated every 3 months. It appeared in 2002 and is the only non-English language version in the Cochrane Library.

Cognitive behaviour therapy: A psychotherapeutic approach focusing on changing dysfunctional behaviours, distorted negative thoughts associated with specific situations and maladaptive attitudes related to depression.

Cohort study: A longitudinal study of one or more groups of healthy individuals who share a common characteristic (cohort) with varying degrees of exposure to a risk factor and measuring the onset of the disease or condition under study.

Comorbidity: Clinical situation in which there is the coexistence of two or more diseases or conditions, such as depression and anxiety.

Contingency management: A variety of Skinnerian or operant techniques that share the common goal of controlling behaviour by manipulating its consequences.

Counselling: Advice or guidance consisting of a psychological therapy that provides information and an exchange of experiences. It is based on four pillars: 1) Assertive communication skills, 2) Emotional support, 3) Problem-solving techniques and 4) Self-control.

Data Mining: Set of techniques based on algorithms, varying in sophistication, which are applied to a data set to obtain results. It provides a new method for managing large databases.

Dialectical behaviour therapy: A psychological treatment developed specifically to treat people with borderline personality disorder, but which is also used for patients with other

diagnoses. It uses techniques that focus on behavioural change with acceptance or validation strategies, stressing that the acceptance does not preclude change (dialectical component).

Effectiveness: Extent to which an intervention produces a beneficial result under ordinary circumstances.

Effect size: An estimate of the effect of a treatment when compared with a control group (e.g. another active treatment, no treatment or normal care). An example of effect size is the relative risk (used for dichotomous variables) and mean and standardised weighted differences (both for continuous variables).

Efficacy: Extent to which a given intervention in ideal conditions produces a beneficial result. Randomised clinical trials are the gold standard for the evaluation of efficacy.

Electroconvulsive therapy: A procedure consisting of provoking seizure activity by electrical stimulation of the central nervous system, for therapeutic purposes.

Embase (*Excerpta Medica dataBASE*): A bibliographic database produced by the company, Elsevier, specialising in the field of biomedicine and pharmacology. It contains over 12 million records and has been available since 1974.

Family therapy: This psychological intervention makes family relationships its main focus, as some authors have pointed out that there is strong evidence of an association between depression in young people and factors such as weak bonding, high levels of criticism, family hostility and parental psychopathology.

Hopelessness: Cognitive schemas that share negative expectations about the future, be it the immediate future or a more distant one. Measuring the hopelessness construct was started by Beck and his colleagues, who developed the Beck Hopelessness Scale (BHS).

Interpersonal therapy: This deals with interpersonal relationships and is involved in the patient's immediate social context. It assumes interpersonal problems can lead to or exacerbate depression; thus it focuses on them to facilitate adaptive changes and therefore an improvement in depressive symptoms.

Lifespan: A type of brief individual therapy with cognitive orientation aimed at younger people with severe mental disorders and an imminent risk of suicide. Therapy includes 8-10 individual sessions over 4 phases: initial, suicide risk assessment, cognitive modules and conclusion.

Locus of control: The degree to which subjects perceive that events are caused by their own behaviour (internal) or by agents external to themselves. The internal locus of control is the perception that events occur mainly as a result of one's actions, while the external locus of control is the perception that events occur as a result of chance, fate, luck or the power and decisions of others.

Medline: Bibliographic database produced by the United States National Library of Medicine. It includes references from articles published in over 4500 medical journals since 1966. Each Medline record contains the basic data from the reference for later retrieval. PubMed is an information retrieval system based on world wide web technology, which allows the searching of databases, including Medline.

Meta-analysis: Statistical method which combines the results of different studies to assess heterogeneity and compile overall results.

Mindfulness: This is also called awareness or retention, and is the ability to pay attention to the experience as it happens in the present moment, without judgement or evaluation.

National Institute for Health and Care Excellence (NICE): A British public body, part of the National Health Service, that provides guidelines for health promotion and the prevention and treatment of diseases.

Non-directive therapy: A procedure whereby the patient takes the lead and the psychotherapist reflects what has been said to him. Its main feature is the attitude of the therapist, who provides the conditions of the therapeutic relationship promoting the psychological change processes.

Normal care: The patient care received according to where this occurs. The definition of usual or normal care varies across studies, and includes different psychotherapeutic and/or pharmacological interventions.

Normal treatment: The patient care received according to where it occurs and the daily clinical setting. It is normally used as a comparison group in experimental studies.

Observational study: A set of epidemiological studies where the researcher cannot assign a treated and control group, and is thus limited to measuring the variables determined for the study.

Observer-reporting scale: Assessment tool designed to be completed by an examiner. The practitioner assessing the scale must have the different levels of professional training for its application, depending on the instrument.

Problem-solving therapy: A psychological intervention that focuses on coping with specific problem areas, with the therapist and patient working together in the identification, prioritisation and management of these areas.

Problem-solving techniques: Training resources that facilitate coping with conflict or stress.

Psychodynamic therapy: Derived from psychoanalysis and based on Freud's theory of psychological functioning, where the nature of conflict can be largely unconscious, so that the therapeutic goal is to resolve these conflicts.

Psychoeducation: Programmes in individual or group format establishing an explicit and educational interaction between the professional, the patient and caregivers.

Psychological autopsy: Data collection method after a suicide. It consists of interviewing relatives and friends to gather information about the prior existence of suicidal ideation/communication and the presence of risk factors.

Psychosocial assessment: One that includes different components, of which the most important are the assessment of the psychological and social factors that may explain suicidal behaviour.

Randomised clinical trial: Experimental study in which participants are randomly assigned to receive a treatment or intervention from two or more options. One group tends to receive conventional treatment (control group), which serves as a standard of comparison, while another group receives the treatment under study (experimental group).

RAND/UCLA method: This is a consensus technique, based on a modified Delphi method, to consider the views of a panel of experts about the suitability of a medical procedure.

Recovery: This is the remission period required to determine a complete recovery from the depressive episode. According to DSM IV criteria, this period is two months.

Recurrence: Development of a depressive disorder in a person who has previously suffered from depression. It is usually considered that six months must pass before a new depressive episode can occur.

Referral: Sending a patient from one care service to another, whether for consultation or for care, as the service currently received by the patient is insufficient or not sufficiently qualified for their needs. Referral priority is established by the treating physician and depends on the reason for the consultation, the pathology and/or the patient's personal situation.

Relapse: A worsening in an apparently controlled episode until new diagnostic criteria level are reached, which occurs during remission and before recovery.

Remission: A period when the patient is asymptomatic, suffering nothing more than the minimal residual symptoms, alongside a total restoration of function.

Response: Following treatment, a significant reduction in, or lack of, symptoms of depression for at least two weeks; or an improvement of at least 50% from initial values on a scale measuring depression.

Scottish Intercollegiate Guidelines Network (SIGN): An organisation formed in 1993 to develop and disseminate clinical practice guidelines for the Scottish National Health Service, with recommendations based on the best scientific evidence available.

Self-harm: Potential self-inflicted harmful conduct for which there is express or implied evidence that the person does not intend to kill himself. The person wants to use the apparent intention of dying for some purpose. This type of behaviour may or may not lead to injury or death (when it would be unintentional self-inflicted death). It is also called a suicidal gesture.

Self-help: Learning or enhancing behavioural or coping skills for negative situations and emotional states, with no or minimal intervention by a therapist. It aims to give patients the knowledge and skills to help overcome or manage their health problems.

Self-reporting scale: Assessment tool designed to be completed by the individual or by an informant.

Suicidal behaviour: Potentially injurious and self-inflicted behaviour in which there is evidence that: a) the person wants to use the apparent intention of dying for some purpose, b) the person has some degree of suicide intent, whether determined or not.

Suicidal communication: Interpersonal act which transmits thoughts, desires or the intention to end one's life, for which there is implicit or explicit evidence that this act of communication is not in itself a form of suicidal behaviour. There are two types of suicidal communication: suicide threats and suicide plans.

Suicidal ideation: Thoughts (cognitions) about committing suicide.

Suicide: Self-inflicted death by a person with implicit or explicit evidence that the act was intentional.

Suicide Plan: Proposal of a method to carry out potential suicidal behaviour.

Suicide threat: An interpersonal, verbal or non-verbal act that could predict possible suicidal behaviour in the near future.

Support group: Composed of people who often share some kind of problem which affects their normal functioning. They are often compiled by a practitioner, and may sometimes be guided by trained paraprofessionals or supervised by professionals.

Supportive therapy: An intervention based on emotional support, non-directive problem-solving and patient status review (e.g. depressive symptoms, school performance, suicidality and social activities) to assess the need for intervention by specialist practitioners.

SUPRE: A WHO programme launched in 1999 for the prevention of suicide.

Systematic review: Form of research that provides a summary of existing studies on a specific topic; using systematic and explicit methods of identification, critical appraisal and synthesis of the literature.

Therapeutic alliance: Establishment of an interpersonal relationship between the patient and the professional, consisting of collaboration, consensus and results orientation. It is an essential component of the therapeutic process, since it promotes communication, as well as increasing the patient's confidence and cooperation with the treatment.

Triage: The systematic clinical prioritisation of treatment for a set of patients after evaluation with a series of predetermined criteria and a classification method to determine the level of urgency.

Undetermined suicidal behaviour: Where the degree of intent may or may not lead to injury or death (when it would be unintentional and undetermined self-inflicted death).

Wait list: A term used in clinical trials to designate the control group against whom the experimental intervention is compared. The clinical variables of the participants assigned to this group are measured at the end of the waiting period, before receiving the treatment themselves.

Annex 5. Conflict of interest

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Bibliography

1. Scottish Intercollegiate Guidelines Network. Forming guideline recommendations. En: SIGN 50: A guideline developers' handbook: Edinburgh: SIGN. 2001.
2. Hawton K, van Heeringen K. Suicide. *Lancet*. 2009;373(9672):1372-81.
3. World report on violence and health. Geneva: WHO; 2002 [cited 18 Jan, 2010]. Available at: http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf
4. Preventing Suicide. Program Activities Guide [Internet]. Atlanta (GA): Department health & Human Services; [cited 25 Jan, 2010]. Available at: <http://www.cdc.gov/violenceprevention/pdf/PreventingSuicide-a.pdf>.
5. The state of the Mental Health in the Europe. Commission of the European Communities. European Communities, 2004.
6. Estrategia en salud mental Sistema Nacional de Salud 2009-2013. Madrid: Ministerio de Sanidad, Política Social e Igualdad; 2011.
7. Bille Brahe U. Suicidal behaviour in Europe. The situation in the 1990s. Copenhagen: World Health Organisation, Regional Office for Europe; 1998 [cited 31 Jan, 2011]. Available at: <http://selvmord.wnm.dk/filecache/31137/1277884104/e60709whopublicationsuicidalbehaviourineurop ebille-brahe1998.pdf>
8. Chinchilla A, Correas J, Vega M. Manual de urgencias psiquiátricas. Barcelona: Masson; 2003.
9. Meyer RE, Salzman C, Youngstrom EA, Clayton PJ, Goodwin FK, Mann JJ, et al. Suicidality and risk of suicide-definition, drug safety concerns, and a necessary target for drug development: a consensus statement. *J Clin Psychiatry*. 2010;71(8):e1-e21.
10. Diekstra RFW. The epidemiology of suicide and parasuicide. *Acta Psychiatr Scand*. 1993;371:9-20.
11. O'Carroll PW, Berman AL, Maris RW, Moscicki EK, Tanney BL, Silverman M. Beyond the Tower of Babel: a nomenclature for suicidology. *Suicide Life Threat Behav*. 1996;26(3):237-52.
12. Silverman MM, Berman AL, Sanddal MD, O'Carroll PW, Joiner TE. Rebuilding the Tower of Babel: A Revised Nomenclature for the Study of Suicide and Suicidal Behaviors. Part 1: Background, Rationale, and Methodology. *Suicide Life Threat Behav*. 2007;37(3):248-63.
13. Silverman MM, Berman AL, Sanddal MD, O'Carroll PW, Joiner TE. Rebuilding the Tower of Babel: A Revised Nomenclature for the Study of Suicide and Suicidal Behaviors. Part 2: Suicide-Related Ideations, Communications, and Behaviors. *Suicide Life Threat Behav*. 2007;37(3):264-77.
14. De Leo D, Bertolote JM, Lester D. Self-directed violence. En: Krug EG, Dahlberg LL, Mercy JA, Zwi AB, Lozano R, eds. World Report on violence and health. Geneva: World Health Organisation; 2002. p. 183-212.
15. World Health Organisation (Spanish version). Prevención del suicidio: un instrumento para trabajadores de atención primaria de salud [Internet]. Ginebra: Departamento de Salud Mental y Toxicología, Organización Mundial de la Salud; 2000 [cited 10 May, 2010]. Available at: www.who.int/entity/mental_health/media/primaryhealthcare_workers_spanish.pdf
16. Mladovsky P, Allin S, Masseria C, Hernández-Quevedo C, McDaid D, Mossialos E. Health in the European Union. Trends and analysis. Copenhagen: European Observatory on Health Systems and Policies; 2009 [cited 8 Feb, 2010]. Available at: <http://www.euro.who.int/Document/E93348.pdf>

17. Arsenault-Lapierre G, Kim C, Turecki G. Psychiatric diagnoses in 3275 suicides: a meta-analysis. *BMC Psychiatry*. 2004;4(37):1-11.
18. Nock MK, Borges G, Bromet EJ, Cha CB, Kessler RC, Lee S. Suicide and Suicidal Behavior. *Epidemiol Rev*. 2008;30(1):133-54.
19. Sullivan GR, Bongar B. Assessing suicide risk in the adult patient. En: Kleespies PM, ed. *Behavioral Emergencies An evidence-based resource for evaluating and managing risk of suicide, violence, and victimisation*. Washington (DC): American Psychological Association; 2009.
20. Oquendo M, Currier D, Posner K. Reconceptualización de la nosología psiquiátrica: el caso de la conducta suicida. *Rev Psiquiatr Salud Ment (Barc)*. 2009;2(2):63-5.
21. Haro JM, Palacín C, Vilagut G, Martínez M, Bernal M, Luque I, et al. Prevalencia de los trastornos mentales y factores asociados: resultados del estudio ESEMeD-España. *Med Clin (Barc)*. 2006;126(12):445-51.
22. López-Ibor JJ, Alonso J, Haro JM. Estudio Europeo de la Epidemiología de los Trastornos Mentales (ESEMeD): aportaciones para la salud mental en España. *Actas Esp Psiquiatr*. 2007;35(suppl. 2):1-3.
23. Cavanagh JTO, Carson AJ, Sharpe M, Lawrie SM. Psychological autopsy studies of suicide: a systematic review. *Psychol Med*. 2003;33:395-405.
24. Werlanga BG, Botegab NJ. A semi-structured interview for psychological autopsy in suicide cases. *Rev Bras Psiquiatr*. 2003;25(4):212-9.
25. Kann L, Kinchen SA, Williams BL, Ross JG, Lowry R, Grunbaum JA, et al. Youth risk behavior surveillance-United States, 1999. State and local YRBSS Coordinators. *J Sch Health*. 2000;70:271-85.
26. Bertolote JM, Fleischmann A. A global perspective in the epidemiology of suicide. *Suicidology*. 2002;7(2):6-8.
27. Vega Piñeiro M, Blasco Fontecilla H, Baca García E, Díaz Sastre C. El suicidio. *Salud Global Salud Mental*. 2002;4:2-15.
28. Instituto Nacional de Estadística. Defunciones según la Causa de Muerte, 2010. Provisional Data for Press release [Internet]. Madrid: INE; 2012 [updated 2012; cited 5 Jun, 2012]. Available at: <http://www.ine.es/prensa/np703.pdf>
29. Chishti P, Stone DH, Corcovan P, Williamson E, Petridou E. Suicide mortality in the European Union. *Eur j Public Health*. 2003;13:108-14.
30. Ruiz Pérez I, Orly de Labry Lima A. El suicidio en la España de hoy. *Gac Sanit*. 2006;20(1):25-31.
31. Instituto Nacional de Estadística. Salud. Defunciones según la causa de muerte. Tasas de mortalidad por causas. Madrid: Instituto Nacional Estadística; 2012 [cited 22 Jan, 2012]. Available at: <http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t15/p417&file=inebase&L=0>
32. Instituto Nacional de Estadística. Salud. Defunciones según la causa de muerte 2010. Madrid: Instituto Nacional Estadística; 2012 [cited 12 Mar, 2012]. Available at: <http://www.ine.es/jaxi/tabla.do?path=/t15/p417/a2010/10/&file=06001.px&type=pcaxis&L=0>
33. Fernández Egido C, García Herrero G, Romero García R, Marquina Santos AJ. Intoxicaciones agudas en las urgencias extrahospitalarias. *Emergencias*. 2008;20:328-31.
34. Caballero Vallés PJ, Dorado Pombo S, Jerez Basurco B, Medina Sampedro M, Brusínt Olivares B. Vigilancia epidemiológica de la intoxicación aguda en el Área Sur de la Comunidad de Madrid: Estudio VEIA 2000. *An Med Interna*. 2004;21(2):62-8.

35. Grupo de trabajo sobre GPC. Elaboración de guías de práctica clínica en el Sistema Nacional de Salud. Manual Metodológico. Madrid: Instituto Aragonés de Ciencias de la Salud-I+CS; 2006. Report no: I+CS N° 2006/01.
36. American Psychiatric Association. Practice guideline for the Assessment and Treatment of Patients with Suicidal Behaviors: American Psychiatric Association; 2003 [cited 02 mar 2010]. Available at: http://www.psychiatryonline.com/pracGuide/pracGuideChapToc_14.aspx
37. Pérez Barrero SA, Mosquera D. El suicidio: prevención y manejo. Memorias de un curso necesario. Madrid: Ediciones Pléyades; 2006.
38. Bobes García J, Giner Ubago J, Daiz J. Suicidio y Psiquiatría. Recomendaciones preventivas y de manejo del comportamiento suicida. Madrid: Triacastela; 2011.
39. SAMHSA'S National Mental Health Information Center. National Strategy for Suicide Prevention: Goals and Objectives for Action. Rockville (MD): SAMHSA Health Information Network; 2010 [cited 2 Mar, 2010]. Available at: <http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/appendix.asp>
40. Beautrais AL, Collings SCD, Ehrhardt P. Suicide Prevention: A review of evidence of risk and protective factors, and points of effective intervention. Wellington: Ministry of Health; 2005.
41. López P, González-Pinto A, Mosquera F, Aldama A, González C, Fernández de Corres B, et al. Estudio de los factores de riesgo de la conducta suicida en pacientes hospitalizados. Análisis de la atención sanitaria. Investigación Comisionada. Vitoria-Gasteiz: Gobierno Vasco, Departamento de Sanidad; 2007. Report no: Osteba D-07-02.
42. Yoshimasu K, Kiyohara C, Miyashita K. Suicidal risk factors and completed suicide: meta-analyses based on psychological studies. *Environ Health Prev Med.* 2008;13:243-56.
43. Sakinofsky I. Treating Suicidality in Depressive Illness. Part I: Current Controversies. *Can J Psychiatry.* 2007;52(6S1):71S-84S.
44. Canadian Coalition for Seniors' Mental Health. The Assessment of Suicide Risk and Prevention of Suicide. Toronto: Canadian Coalition for Seniors' Mental Health; 2006.
45. Williams JM, Pollock LR. The psychology of suicidal behaviour. En: Hawton K, van Heeringen K, eds. *The international handbook of suicide and attempted suicide.* Chichester: Wiley; 2000.
46. O'Connor RC. The Relations between Perfectionism and Suicidality: A Systematic Review. *Suicide Life-Threat Behav.* 2007;37(6):698-714.
47. Brezo J, Paris J, Turecki G. Personality traits as correlates of suicidal ideation, suicide attempts, and suicide completions: a systematic review. *Acta Psychiatr Scand.* 2006;113(3):180-206.
48. Fliege H, Lee JR, Grimm A, Klapp BF. Risk factors and correlates of deliberate self-harm behavior: A systematic review. *J Psychosom Res.* 2009;66:477-93.
49. Crisafulli C, Calati R, De Ronchi D, Sidoti A, D'Angelo R, Amato A, et al. Genetics of suicide, from genes to behavior. *Clin Neuropsychiatry.* 2010;7(4/5):141-8.
50. Giner L. Diferencias en la conducta suicida. Madrid: Universidad Autónoma de Madrid; 2011.
51. Laje G, Paddock S, Manji H, Rush J, Wilson AF, Charney D, et al. Genetic markers of suicidal ideation emerging during citalopram treatment of major depression. *Am J Psychiatry.* 2007;164(10):1530-8.
52. Baca-García E, Vaquero-Lorenzo C, Pérez-Rodríguez MM, Gratacòs M, Bayés M, Santiago-Mozos R, et al. Nucleotide variation in central nervous system genes among male suicide attempters. *Am J Med Genet B Neuropsychiatr Genet.* 2010;153B(1):208-13.

53. National Collaborating Centre for Mental Health. Self-harm. The short-term physical and psychological management and secondary prevention of self-harm in primary and secondary care. London: National Institute for Clinical Excellence; 2004. Report no: 16.
54. Robson A, Scrutton F, Wilkinson L, MacLeod F. The risk of suicide in cancer patients: a review of the literature. *Psychooncology*. 2010;19(12):1250-8.
55. Catalan J, Harding R, Sibley E, Clucas C, Croome N, Sherr L. HIV infection and mental health: suicidal behaviour-systematic review. *Psychol Health Med*. 2011;16(5):588-611.
56. Keiser O, Spoerri A, Brinkhof MW, Hasse B, Gayet-Ageron A, Tissot F, et al. Suicide in HIV-infected individuals and the general population in Switzerland, 1988-2008. *Am J Psychiatry*. 2010;167(2):143-50.
57. Informe de la Comisión al Consejo, al Parlamento Europeo, al Comité Económico y Social y al Comité de las Regiones sobre la situación sanitaria de la mujer en la Comunidad Europea. Bruselas: Comisión de las Comunidades Europeas; 1997. Report no: COM(97)224.
58. WHO Multi-country Study on Women's Health and Domestic Violence against Women. Initial results on prevalence, health outcomes and women's responses. Geneva: World Health Organisation; 2005.
59. Golding JM. Intimate Partner Violence as a Risk Factor for Mental Disorders: A Meta-Analysis. *J Fam Violence*. 1999;14(2):99-132.
60. Víctimas mortales por violencia de género. Ficha resumen - datos provisionales. Madrid: Ministerio de Sanidad, Política Social e Igualdad; 2011 [cited 15 Feb, 2011]. Available at: <http://www.migualdad.es/ss/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobheadername1=Content-disposition&blobheadervalue1=inline&blobkey=id&blobtable=MungoBlobs&blobwhere=1244655094407&ssbinary=true>
61. Judge B, Billick SB. Suicidality in Adolescence: Review and Legal Considerations. *Behav Sci Law*. 2004;22:681-95.
62. King M, Semlyen J, See Tai S, Killaspy H, Osborn D, Popelyuk D, et al. A systematic review of mental disorder, suicide, and deliberate self-harm in lesbian, gay and bisexual people. *BMC Psychiatry*. 2008;8:70.
63. Guo B, Harstall C. Efficacy of suicide prevention programs for children and youth. Edmonton (AB): Alberta Heritage Foundation for Medical Research. Health Technology Assessment; 2002. Report no: 26.
64. Yang CY. Association between parity and risk of suicide among parous women. *CMAJ*. 2010;182(6):569-72.
65. Kapur N, House A, May C, Creed F. Service provision and outcome for deliberate self-poisoning in adults-results from a six-centre descriptive study. *Soc Psychiatry Psychiatr Epidemiol*. 2003;38:390-5.
66. Kapur N, Murphy E, Cooper J, Bergen H, Hawton K, Simkin S, et al. Psychosocial assessment following self-harm: results from the multi-centre monitoring of self-harm project. *J Affect Disord*. 2008;106(3):285-93.
67. Nordentoft M, Sogaard M. Registration, psychiatric evaluation and adherence to psychiatric treatment after suicide attempt. *Nord J Psychiatry*. 2005;59:213-6.
68. Miret M, Nuevo R, Morant C, Sainz-Cortón E, Jiménez-Arriero MA, López-Ibor JJ, et al. Calidad de los informes médicos sobre personas que han intentado suicidarse. *Rev Psiquiatr Salud Ment*. 2010;3(1):13-8.

69. Schechter M, Maltzberger JT. The clinician interview as a method in suicide risk assessment. En: Wasserman D, Wasserman C, eds. *Suicidology and Suicide Prevention A global Perspective*. New York: Oxford University Press Inc; 2009.
70. Motto JA. An integrated approach to estimating suicide risk. En: Maris RW, Berman AL, Maltzberger JT, Yufit RI, eds. *Assessment and prediction of suicide*. New York: Guilford; 1992. p. 625-39.
71. Royal Australian and New Zealand College of Psychiatrists Clinical Practice Guidelines Team for Deliberate Self-harm. Australian and New Zealand clinical practice guidelines for the management of adult deliberate self-harm. *Aust N Z J Psychiatry*. 2004;38:868-84.
72. Royal College of Psychiatrists. *Assessment following self-harm in adults*. London: Royal College of Psychiatrists; 2004. Report no: CR 122.
73. Royal College of Psychiatrists. *Self-harm, Suicide and Risk: Helping People who Self-harm*. London: Royal College of Psychiatrists; 2010. Report no: CR158.
74. World Health Organisation (Spanish version). *Prevención del suicidio: un instrumento para médicos generalistas*. Ginebra: Organización Mundial de la Salud, Departamento de Salud Mental y Toxicología; 2000 [cited 10 May, 2010]. Available at: http://www.who.int/publications/list/prevention_sucide_medecins/es/index.html
75. Taylor TL, Hawton K, Fortune S, Kapur N. Attitudes towards clinical services among people who self-harm: systematic review. *Br J Psychiatry*. 2009;194:104-10.
76. Froján MX. *Tratando depresión. Guía de actuación para el tratamiento psicológico*. Madrid: Pirámide; 2006.
77. Ekman P. *Como detectar mentiras, una guía para utilizar en el trabajo, la política y la pareja*. Barcelona: Paidós; 1991.
78. New Zealand Guidelines Group (NZGG). *The assessment and management of people at risk of suicide*. Wellington (NZ): New Zealand Guidelines Group (NZGG); 2003.
79. Lamb TF. A systematic review of deliberate self-harm assessment instruments. *Diss Abstr Int*. 2006;66(10-B):5686.
80. Beck AT, Weissman A, Lester D, Trexler L. The measurement of pessimism: the hopelessness scale. *J Consult Clin Psychol*. 1974;42:861-5.
81. Aliaga J, Rodríguez L, Ponce C, Frisancho A, Enríquez J. Escala de desesperanza de Beck (BHS): Adaptación y características psicométricas. *Revista de Investigación en Psicología*. 2006;9(1):69-79.
82. Beck AT, Brown G, Berchick RJ, Stewart BL, Steer RA. Relationship between hopelessness and ultimate suicide: a replication with psychiatric outpatients. *Am J Psychiatry*. 1990;147:190-5.
83. McMillan D, Gilbody S, Beresford E, Neilly L. Can we predict suicide and non-fatal self-harm with the Beck Hopelessness Scale? A meta-analysis. *Psychol Med*. 2007;37(6):769-78.
84. Aish AM, Wasserman D. Does Beck's Hopelessness Scale really measure several components? *Psychol Med*. 2001;31:367-72.
85. Beck AT, Steer RA, Garbin MG. Psychometric properties of the Beck Depression Inventory: Twenty-five years of the valuation. *Clin Psychol Rev*. 1988;8:77-100.
86. Beck AT, Steer RA, Brown GK. *BDI-II, Beck depression inventory: Manual*. 2nd ed. San Antonio, Texas: Harcourt; 1996.
87. Brown GK. *A Review of Suicide Assessment Measures for Intervention Research With Adults and Older Adults*. Rockville (MD): National Institute of Mental Health; 2002 [cited 12 abr 2010]. Available at: <http://www.nimh.nih.gov/research/adultsuicide.pdf>

88. Conde V, Useros E. Adaptación castellana de la Escala de Evaluación Conductual para la Depresión de Beck. *Rev Psiquiatr Psicol Med Eur Am Lat.* 1975(12):217-36.
89. Patterson WM, Dohn HH, Bird J, Patterson GA. Evaluation of suicidal patients: the SAD PERSONS scale. *Psychosomatics.* 1983;24(4):348-9.
90. Comité de Consenso de Catalunya en Terapéutica de los Trastornos Mentales. Recomendaciones terapéuticas en los trastornos mentales. Conducta suicida. 3ª ed. Barcelona: Ars Medica; 2005.
91. Gobierno de Canarias. Consejería de Sanidad. Salud Mental en Atención Primaria. Recomendaciones para el abordaje de los trastornos más prevalentes: conducta suicida 2008 [cited 10 may 2010]. Available at: http://www2.gobiernodecanarias.org/sanidad/scs/content/f52829a1-f9cb-11dd-9d99-e96480bea708/salud_mental_at_pr.pdf
92. Berman A. Risk assessment, treatment planning, and management of the at-risk-for suicide client: The “how to” aspects of assessing suicide risk and formulating treatment plans. *Family Therapy Magazine.* 2006;5(4):7-10.
93. Juhnke GA, Granello PF, Lebrón-Striker MA. IS PATH WARM? A suicide assessment mnemonic for counselors (ACAPCD-03). Alexandria (VA): American Counseling Association; 2007.
94. Beck AT, Kovacs M, Weissman A. Assessment of suicidal intention: the Scale for Suicide Ideation. *J Consult Clin Psychol.* 1979;47(2):343-52.
95. Beck RW, Morris JB, Beck AT. Cross-validation of the Suicidal Intent Scale. *Psychol Rep.* 1974;34(2):445-46.
96. Díaz FJ, Baca-García E, Díaz-Sastre C, García Resa E, Blasco H, Braquehais Conesa D, et al. Dimensions of suicidal behavior according to patient reports. *Eur Arch Psychiatry Clin Neurosci.* 2003;253(4):197-202.
97. Hamilton M. A rating scale for depression. *J Neurol Neurosurg Psychiatry.* 1960;23:56-62.
98. Ramos-Brieva JC. A new validation of the Hamilton Rating Scale for Depression. *J Psychiatr Res.* 1988;22:21-8.
99. Linehan MM. Suicidal Behaviors Questionnaire. Unpublished inventory. Seattle: University of Washington; 1981.
100. Linehan MM, Goodstein JL, Nielsen SL, Chiles JA. Reasons for staying alive when you are thinking of killing yourself: The Reasons for Living Inventory. *J Consult Clin Psychol.* 1983;51:276-86.
101. Oquendo MA, Graver R, Baca-García E, Morales M, de la Cruz V, Mann JJ. Spanish adaptation of the Reasons for Living Inventory (FFLI). *Hispanic J Behav.* 2000;22:223-32.
102. Plutchik R, van Praag HR, Conte HR, Picard S. Correlates of suicide and violence risk 1: The suicide risk measure. *Compr Psychiatry.* 1989;30(4):296-302
103. Rubio G, Montero I, Jáuregui J, Villanueva R, Casado MA, Marín JJ, et al. Validación de la escala de riesgo suicida de Plutchik en población española. *Arch Neurobiol.* 1998;61:143-52.
104. Plutchik R, van Praag HM. The measurement of suicidality, aggressivity and impulsivity. *Prog Neuropsychofarmacol Biol Psychiatr.* 1989:(Suppl) 23-4
105. Rubio G, Montero I, Jáuregui J, Martínez ML, Álvarez S, Marín JJ, et al. Validación de la escala de impulsividad de Plutchnik en población española. *Arch Neurobiol.* 1998;61(3):223-32.
106. Barratt ES. Impulsiveness and aggression. En: Monahan J SH, ed. *Violence and mental disorder: developments in risk assessment.* Chicago: The University of Chicago Press; 1994.
107. Oquendo M, Baca-García E, Graver R, Morales M, Montalvan V, Mann J. Spanish adaptation of the Barratt Impulsiveness Scale (BIS- 11). *Eur J Psychiatry.* 2001;15:147-55.

108. Buss AH, Durkee A. An inventory for assessing different kinds of hostility. *J Consult Psychol.* 1957;21(4):343-9.
109. Montalván V, Graver R, María A, Oquendo MA, Baca-García E, Morales M, Mann J. Spanish Adaptation of the Buss-Durkee Hostility Inventory (BDHI). *Eur J Psychiat.* 2001;15(2):101-12.
110. Buglass D, Horton J. A scale for predicting subsequent suicidal behaviour. *Br J Psychiatry.* 1974;124:573-8.
111. Kreitman N, Foster J. The construction and selection of predictive scales, with special references to parasuicide. *Br J Psychiatry.* 1991;159:185-92.
112. Rogers JR, Alexander RA, Subich LM. Development and psychometric analysis of the Suicide Assessment Checklist. *Journal of Mental Health Counseling.* 1994;16:352-68.
113. Stanley B, Traskman-Bendz L, Stanley M. The Suicide Assessment Scale: a scale evaluating change in suicidal behavior. *Psychopharmacol Bull.* 1986;22(1):200-5.
114. Pierce DW. Suicidal intent in self-injury. *Br J Psychiatry.* 1977;130:377-85.
115. Weisman AD, Worden JW. Risk-Rescue Rating in Suicide Assessment. *Arch Gen Psychiatry.* 1972;26(6):553-60.
116. Poldinger W. *La tendencia al suicidio.* Madrid: Morata; 1969.
117. Motto JA, Bostrom AG. Preliminary field testing of risk estimator for suicide. *Suicide Life Threat Behav.* 1985;15:139-50.
118. Zung WW. Index of potential suicide (IPS). A rating scale for suicide prevention. En: Grant, ed. *A Medical Toxicology Index*; 1973. p. 221-49.
119. Zung WW. Clinical Index of potential suicide. En: Beck AT, Resnik HLP, Lettters DJ, eds. *The prediction of suicide.* Maryland: The Charles Press; 1974. p. 229-49.
120. Horowitz LM, Wang PS, Koocher GP, Burr BH, Smith MF, Klavon S, et al. Detecting suicide risk in a pediatric emergency department: development of a brief screening tool. *Pediatrics.* 2001;107(5):1133-7.
121. Robles García R, Agraz Páez A, Ascencio Guirado M, Mercado Salcedo E, Hernández Muñoz L. Evaluación del riesgo suicida en niños: propiedades psicométricas de la versión en castellano del Cuestionario de Riesgo Suicida (RSQ). *Actas Esp Psiquiatr.* 2005;33:292-7.
122. Werlang B. A semistructured interview for psychological autopsy: an inter-rater reliability study. *Suicide Life-Threat Behav Res Ther.* 2003;33:326-30.
123. García-Caballero A, Recimil MJ, Touriño R, García-Lado I, Alonso MC, Werlang B, et al. Adaptación y validación de la Semi-Structured Interview for Psychological Autopsy (SSIPPA) in Spanish. *Actas Esp Psiquiatr.* 2010;38(6):332-9.
124. Posner K, Melvin GA, Stanley B. Identification and Monitoring of Suicide Risk in Primary Care Settings. *Prim psychiatry.* 2007;14(12):50-5.
125. Brown GL, Goodwin FK, Ballenger JC, Goyer PF, Major LF. Aggression in humans correlates with cerebrospinal fluid amine metabolites. *Psychiatry Res.* 1979; 1:131-9.
126. Sheehan DV, Lecrubier Y, Harnett-Sheehan K, Janavs J, Weiller E, Bonora LI, et al. Reference Reliability and Validity of the MINI International Neuropsychiatric Interview (MINI): According to the SCID-P. *Eur Psychiatry.* 1997;12:232-41.
127. Ferrando L, Franco AL, Soto M, Bobes J, Soto O, Franco L, et al. M.I.N.I. Mini International Neuropsychiatric Interview. Version in Spanish 5.0.0. DSM-IV. Madrid: Instituto IAP. 1998.
128. Kerr PL, Muehlenkamp JJ, Turner JM. Non-suicidal self-injury: a review of current research for family medicine and primary care physicians. *J Am Board Fam Med.* 2010;23(2):240-59.

129. Luoma JB, Martin CE, Pearson JL. Contact with mental health and primary care providers before suicide: a review of the evidence. *Am J Psychiatry*. 2002;159(6):909-16.
130. Farand L, Renaud J, Chagnon F. Adolescent suicide in Quebec and prior utilization of medical services. *Can J Public Health*. 2004;95(5):357-60.
131. Lastra I, y cols. Prevención de las conductas suicidas. En: Vázquez-Barquero JL, ed. *Psiquiatría en Atención Primaria*. Madrid: Aula Médica; 1998. p. 753-70.
132. Haste F, Charlton J, Jenkins R. Potential for suicide prevention in primary care? An analysis of factors associated with suicide. *Br J Gen Pract*. 1998;48:1759-63.
133. Goertemiller Carrigan C, Lynch DJ. Managing Suicide Attempts: Guidelines for the Primary Care Physician. *Prim Care Companion J Clin Psychiatry*. 2003;5(4):169-74.
134. Grupo de trabajo de Salud Mental del Programa de Actividades Preventivas y de Promoción de la Salud (PAPPS). *Guía de Salud Mental en Atención Primaria*. Barcelona: Sociedad Española de Medicina de Familia y Comunitaria (semFYC); 2001 [cited 27 Apr, 2010]. Available at: <http://www.papps.org/upload/file/publicaciones/guiaRevisada2008-salud-mental.pdf>
135. *Protocolos de intervención en urgencias extrahospitalarias 061*. Santiago de Compostela: Xunta de Galicia; 2008.
136. World Health Organisation. *Guía de Intervención mhGAP para los trastornos mentales, neurológicos y por uso de sustancias en el nivel de atención de la salud no especializada* [Internet]. Geneva: World Health Organisation, Department of Mental Health and Substance Abuse; 2010 [cited 2 Nov, 2010]. Available at: www.who.int/mental_health/mhgap
137. Cooper J, Murphy E, Jordan R, Mackway-Jones K. Communication between secondary and primary care following self-harm: are National Institute of Clinical Excellence (NICE) guidelines being met? *Ann Gen Psychiatry*. 2008;23(7):21.
138. Miller TR, Taylor DM. Adolescent suicidality: who will ideate, who will act? *Suicide Life Threat Behav*. 2005;35(4):425-35.
139. Nordentoft M. Prevention of suicide and attempted suicide in Denmark. *Dan Med Bull*. 2007;54(4):306-68.
140. Larkin GL, Beautrais AL. Emergency departments are underutilized sites for suicide prevention. *Crisis*. 2010;31(1):1-6.
141. Gómez Jiménez J. Clasificación de pacientes en los servicios de urgencias y emergencias: Hacia un modelo de triaje estructurado de urgencias y emergencias. *Emergencias*. 2003;15:165-74.
142. Jiménez Murillo L, Hermoso Gadeo F, Tomás Vecina S, Algarra Paredes J, Parrilla Herranz P, Burillo Putze G, et al. *Urgencias Sanitarias en España: situación actual y propuestas de mejora*. Sociedad Española de Medicina de Urgencias y Emergencias. Granada: Escuela andaluza de Salud Pública; 2003.
143. *Emergency triage; Manchester triage group*. 2nd ed. Mackway-Jones K, editor. London: BMJ Books; 2006.
144. Gómez Jiménez J, Ferrando Garrigós JB, Vega García JL, Tomás Vecina S, Roqueta Egea F, Chanovas Borràs M. *Model Andorrà de Triatge: Bases conceptuais i manual de formació*. Andorra la Vieja: Servei Andorrà d'Atenció Sanitària; 2004.
145. Folse VN, Hahn RL. Suicide risk screening in an emergency department: engaging staff nurses in continued testing of a brief instrument. *Clin Nurs Res*. 2009;18(3):253-71.
146. Dieppe C, Stanhope B, Rakhra K. Children who harm themselves: development of a paediatric emergency department triage tool. *Emerg Med J*. 2009;26(6):418-20.

147. Hickey L, Hawton K, Fagg J, Weitzel H. Deliberate self-harm patients who leave the accident and emergency department without a psychiatric assessment: a neglected population at risk of suicide. *J Psychosom Res.* 2001;50(2):87-93.
148. Appleby L, Dennehy JA, Thomas CS, Faragher EB, Lewis G. Aftercare and clinical characteristics of people with mental illness who commit suicide: a case control study. *Lancet.* 1999;353(9162):1397-400.
149. Appleby L, Shaw J, Amos T, McDonnell R, Harris C, McCann K, et al. Suicide within 12 months of contact with mental health services: national clinical survey. *BMJ.* 1999;318(7193):1235-9.
150. Bailey S. Critical care nurses' and doctors' attitudes to parasuicide patients. *Aust J Adv Nurs.* 1994;11(3):11-7.
151. Suokas J, Lonnqvist J. Work stress has negative effects on the attitudes of emergency personnel towards patients who attempt suicide. *Acta Psychiatr Scand.* 1989;79(5):474-80.
152. Ojehagen A, Regnell G, Traskman-Bendz L. Deliberate self-poisoning: repeaters and non-repeaters admitted to an intensive care unit. *Acta Psychiatr Scand.* 1991;84(3):266-71.
153. Mitchell AJ, Dennis M. Self-harm and attempted suicide in adults: 10 practical questions and answers for emergency department staff. *Emerg Med J.* 2006;23(4):251-5.
154. Sociedad Española de Medicina de Urgencias y Emergencias. Proyecto de Programa docente de la Especialidad de Medicina de Urgencias y Emergencias. Madrid: SEMES; [cited 10 May, 2010]. Available at: http://www.semes.org/images/stories/pdf/formacion_formacion_continuada.pdf
155. Runeson B, Tidemalm D, Dahlin M, Lichtenstein P, Langstrom N. Method of attempted suicide as predictor of subsequent successful suicide: national long term cohort study. *BMJ.* 2010;340:c3222.
156. Miret M, Nuevo R, Ayuso-Mateos JL. Documentation of suicide risk assessment in clinical records. *Psychiatr Serv.* 2009;60(7):994.
157. Kleespies PM, Dettmer EL. An evidence-based approach to evaluating and managing suicidal emergencies. *J Clin Psychol.* 2000;56(9):1109-30.
158. Kapur N, Cooper J, Rodway C, Kelly J, Guthrie E, Mackway-Jones K. Predicting the risk of repetition after self-harm: cohort study. *BMJ.* 2005;330(7488):394-5.
159. Cooper J, Kapur N, Dunning J, Guthrie E, Appleby L, Mackway-Jones K. A clinical tool for assessing risk after self-harm. *Annals of emergency medicine.* 2006;48(4):459-66.
160. Cooper J, Kapur N, Mackway-Jones K. A comparison between clinicians' assessment and the Manchester Self-Harm Rule: a cohort study. *Emerg Med J.* 2007;24(10):720-1.
161. Dennis M, Evans A, Wakefield P, Chakrabarti S. The psychosocial assessment of deliberate self-harm: using clinical audit to improve the quality of the service. *Emerg Med J.* 2001;18(6):448-50.
162. Crawford MJ, Turnbull G, Wessely S. Deliberate self-harm assessment by accident and emergency staff: an intervention study. *J Accid Emerg Med.* 1998;15(1):18-22.
163. Appleby L, Morris R, Gask L, Roland M, Perry B, Lewis A, et al. An educational intervention for front-line health professionals in the assessment and management of suicidal patients (The STORM Project). *Psychol Med.* 2000;30(4):805-12.
164. Morris R, Gask L, Webb R, Dixon C, Appleby L. The effects on suicide rates of an educational intervention for front-line health professionals with suicidal patients (the STORM Project). *Psychol Med.* 2005;35(7):957-60.

165. Dicker R, Morrissey RF, Abikoff H, Alvir JM, Weissman K, Grover J, et al. Hospitalizing the suicidal adolescent: Decision-making criteria of psychiatric residents. *J Am Acad Child Adolesc Psychiatry*. 1997;36:769-76.
166. NSW Health Department. Mental health for emergency departments – a reference guide. New South Wales: Centre for Mental Health; 2001.
167. Hawton K, Arensman E, Townsend E, Bremner S, Feldman E, Goldney R, et al. Deliberate self-harm: Systematic review of efficacy of psychosocial and pharmacological treatments in preventing repetition. *BMJ*. 1998;317(7156):441-7.
168. Jacobson G. The inpatient management of suicidality. En: Jacobs DG, ed. *The Harvard Medical School guide to suicide assessment and intervention*. San Francisco: Josey-Bass; 1999.
169. Salkovskis PM, Atha C, Storer D. Cognitive behavioural problem solving in the treatment of patients who repeatedly attempt suicide. A controlled trial. *Br J Psychiatry*. 1990;157:871-6.
170. Baca-García E, Díaz-Sastre C, Resa EG, Blasco H, Conesa DB, Saiz-Ruiz J, et al. Variables associated with hospitalization decisions by emergency psychiatrists after a patient's suicide attempt. *Psychiatr Serv*. 2004;55(7):792-7.
171. Baca-García E, Pérez-Rodríguez MM, Basurte-Villamor I, Saiz-Ruiz J, Leiva-Murillo JM, de Prado-Cumplido M, et al. Using data mining to explore complex clinical decisions: A study of hospitalization after a suicide attempt. *J Clin Psychiatry*. 2006;67(7):1124-32.
172. Suominen K, Lonnqvist J. Determinants of psychiatric hospitalization after attempted suicide. *Gen Hosp Psychiatry*. 2006;28(5):424-30.
173. Hepp U, Moergeli H, Trier SN, Milos G, Schnyder U. Attempted suicide: factors leading to hospitalization. *Can J Psychiatry*. 2004;49(11):736-42.
174. Goldberg JF, Ernst CL, Bird S. Predicting hospitalization versus discharge of suicidal patients presenting to a psychiatric emergency service. *Psychiatr Serv*. 2007;58(4):561-5.
175. Robles R, Paéz F, Ascencio M, Mercado E, Hernández L. Evaluación del riesgo suicida en niños: propiedades psicométricas de la versión en castellano del Cuestionario de Riesgo Suicida (RSQ). *Actas Esp Psiquiatr*. 2005;33(5):292-7.
176. Wenzel A, Brown GK, Beck AT, editors. *Cognitive Therapy for Suicidal Patients. Scientific and Clinical Applications*. Washington: American Psychological Association; 2009.
177. Gunnell D, Frankel S. Prevention of suicide: aspirations and evidence. *BMJ*. 1994;308:1227-33.
178. Hepp U, Wittmann L, Schnyder U, Michel K. Psychological and Psychosocial Interventions After Attempted Suicide. *Crisis*. 2004;25(3):108–17.
179. Crawford MJ, Thomas O, Khan N, Kulinskaya E. Psychosocial interventions following self-harm: Systematic review of their efficacy in preventing suicide. *Br J Psychiatry*. 2007;190:11-7.
180. Hawton K, Townsend E, Arensman E, Gunnell D, Hazell P, House A, et al. Psychosocial and pharmacological treatments for deliberate self-harm. *Cochrane database of systematic reviews (Online)*. 2000(2):CD001764.
181. McMain S. Effectiveness of psychosocial treatments on suicidality in personality disorders. *Can J Psychiatry*. 2007;52(6 Suppl 1):103S-14S.
182. Fountoulakis KN, Gonda X, Siamouli M, Rihmer Z. Psychotherapeutic intervention and suicide risk reduction in bipolar disorder: A review of the evidence. *J Affect Disord*. 2009;113:21-9.
183. Tarrier N, Taylor K, Gooding P. Cognitive-behavioral interventions to reduce suicide behavior: A systematic review and meta-analysis. *Behavior modification*. 2008;32(1):77-108.

184. Townsend E, Hawton K, Altman DG, Arensman E, Gunnell D, Hazell P, et al. The efficacy of problem-solving treatments after deliberate self-harm: meta-analysis of randomized controlled trials with respect to depression, hopelessness and improvement in problems. *Psychol Med.* 2001;31:979-88.
185. Mujoomdar M, Cimon K, Nkansah E. Dialectical behaviour therapy in adolescents for suicide prevention: systematic review of clinical effectiveness. Ottawa: Canadian Agency for Drugs and Technologies in Health; 2009.
186. SBU – Swedish Council on Health Technology Assessment. Dialectical behavioural therapy (DBT) in borderline personality disorder. Stockholm: SBU – Swedish Council on Health Technology Assessment; 2005. Report no: 2005-07.
187. Torhorst A, Moller HJ, Schmid-Bode KW. *Current Issues of Suicidology.* Berlin: Springer-Verlag; 1988.
188. Grupo de Trabajo sobre el Manejo de la Depresión Mayor en el Adulto. Guía de Práctica Clínica sobre el Manejo de la Depresión Mayor en el Adulto. Santiago de Compostela: Axencia de Avaluación de Tecnoloxías Sanitarias de Galicia (avalía-t); 2008. Report no: avalía-t 2006/06.
189. Patsiakos AT, Clum GA. Effects of psychotherapeutic strategies in the treatment of suicide attempters. *Psychotherapy.* 1985;22:281-90.
190. Klingman A, Hochdorf Z. Coping with distress and self-harm: The impact of a primary prevention program among adolescents. *J Adolesc.* 1993;16:121-40.
191. Raj MAJ, Kumaraiah V, Bhide AV. Cognitive-behavioural intervention in deliberate self-harm. *Acta Psychiatr Scand.* 2001;104:340-5.
192. Wood A, Trainor G, Rothwell J, Moore A, Harrington R. Randomized trial of group therapy for repeated deliberate self-harm in adolescents. *J Am Acad Child Adolesc Psychiatry.* 2001;40:1246-53.
193. March J, Silva S, Petrycki S, Curry J, Wells K, Fairbank J, et al. Fluoxetine, cognitive-behavioral therapy, and their combination for adolescents with depression: Treatment for Adolescents With Depression Study (TADS) randomized controlled trial. *JAMA.* 2004;292(7):807-20.
194. Brown GK, Have TT, Henriques GR, Xie SX, Hollander JE, Beck AT. Cognitive therapy for the prevention of suicide attempts: A randomized controlled trial. *JAMA.* 2005;294:563-70.
195. Tarrier N, Haddock G, Lewis S, Drake R, Gregg L, the Socrates Trial Group. Suicide behavior over 18 months in recent onset schizophrenic patients: The effects of CBT. *Schizophr Res.* 2006;83:15-27.
196. Linehan MM. *Cognitive Behavioral treatment borderline personality disorder.* New York (NY): Guilford Press; 1993.
197. Linehan M, Armstrong HE, Suarez A, Allmon D, Heard L. Cognitive-behavioral treatment of chronically parasuicidal borderline patients. *Arch Gen Psychiatry.* 1991;48:1060-4.
198. Linehan MM, Schmidt H, Dimeff LA, Craft JC, Kanter J, Comtopis KA. Dialectical behavior therapy for patients with borderline personality disorder and drug dependence. *Am J Addict.* 1999; 8:279-92.
199. Koons CR, Robins CJ, Tweed JL, Lynch TR, Gonzalez AM, Morse JQ, et al. Efficacy of dialectical behavior therapy in women veterans with borderline personality disorder. *Behavior Therapy.* 2001;32:371-90.
200. Rathus JH, Miller AL. Dialectical behavior therapy adapted for suicidal adolescents. *Suicide Life Threat Behav.* 2002;32:146-57.

201. Verheul R, van den Bosch LMC, Koeter MWJ, de Ridder MAJ, Stijnen T, van dem Brink W. Dialectical behaviour therapy for women with borderline personality disorder. *Br J Psychiatry*. 2003;182:135-40.
202. Katz LY, Cox BJ, Gunasekara S, Miller AL. Feasibility of dialectical behavior therapy for suicidal adolescent in-patients. *J Am Acad Child Adolesc Psychiatry*. 2004;43:276-82.
203. Van den Bosch LMC, Koeter MWJ, Stijnen T, Verheul R, van den Brink W. Sustained efficacy of dialectical behavior therapy for borderline personality disorder. *Behav Res Ther*. 2005;43:1231-41.
204. Linehan MM, Comtois KA, Murray AM, Brown MZ, Gallop RJ, Heard HL, et al. Two-year randomized controlled trial and follow-up of dialectical behavior therapy vs therapy by experts for suicidal behaviors and borderline personality disorders. *Arch Gen Psychiatry*. 2006;63:757-66.
205. Evans K, Tyrer P, Catalan J, Schmidt U, Davidson K, Dent J, et al. Manual assisted cognitive behavior therapy (MACT): A randomized controlled trial of a brief intervention with bibliotherapy in the treatment of recurrent deliberate self-harm. *Psychol Med*. 1999;29:19-25.
206. Tyrer P, Thompson S, Schmidt U, Jones V, Knapp M, Davidson, et al. Randomized controlled trial of brief cognitive behavior therapy versus treatment as usual in recurrent deliberate self-harm: The POPMACT study. *Psychol Med*. 2003;33:969-76.
207. Weinberg I, Gunderson JG, Hennen J, Cutter CJ. Manual assisted cognitive treatment for deliberate self-harm in borderline personality disorder patients. *J Pers Disord*. 2006; 20:482-92.
208. Wasserman D, Wasserman C, editors. *Oxford textbook of suicidology and suicide prevention: a global perspective*. New York: Oxford University Press; 2009.
209. Lerner MS, Clum GA. Treatment of suicide ideators: A problem solving approach. *Behavior Therapy*. 1990;21:403-11.
210. McLeavey BC, Daly RJ, Ludgate JW, Murray CM. Interpersonal problem solving skills training in the treatment of self-poisoning patients. *Suicide Life Threat Behav*. 1994;24:382-94.
211. Rudd MD, Rajab MH, Orman DT, Stulman DA, Joiner T, Dixon W. Effectiveness of an outpatient intervention targeting suicidal young adults: Preliminary results. *Journal of Consulting and Clinical Psychology*. 1996; 64:179-90.
212. Nordentoft M, Branner J, Drejer K, Mejsholm B, Hansen H, Petersson B. Effect of a suicidal prevention centre for young people with suicidal behaviour in Copenhagen. *Eur Psychiatry*. 2005;20:121-8.
213. Liberman RP, Eckman T. Behavior therapy vs insight-oriented therapy for repeated suicide attempters. *Arch Gen Psychiatry*. 1981;38:1126-30.
214. Nordentoft M, Jeppesen P, Abel M, Kassow P, Petersen L, Thorup A, et al. OPUS study: Suicidal behaviour, suicidal ideation and hopelessness among patients with first-episode psychosis: One-year follow-up of a randomised controlled trial. *Br J Psychiatry*. 2002;181(Suppl. 43): 98-106.
215. Donaldson D, Spirito A, Esposito-Smythers C. Treatment for adolescents following a suicide attempt: Results of a pilot trial. *J Am Acad Child Adolesc Psychiatry*. 2005;44:113-20.
216. Rhee WK, Merbaum M, Strube MJ, Self SM. Efficacy of brief telephone psychotherapy with callers to a suicide hotline. *Suicide Life Threat Behav*. 2005;35:317-28.
217. Power PJR, Bell RJ, Mills R, Herrman-Doig T, Davern M, Henry L, et al. Suicide prevention in first episode psychosis: The development of a randomized controlled trial of cognitive therapy for acutely suicidal patients with early psychosis. *Aust N Z J Psychiatry*. 2003;37:414-20.

218. Eskin M, Ertekin K, Demir H. Efficacy of a Problem-Solving Therapy for Depression and Suicide Potential in Adolescents and Young Adults. *Cogn Ther Res.* 2008;32:227-45.
219. Unutzer J, Tang L, Oishi S, Katon W, Williams JW, Hunkeler E, et al. Reducing suicidal ideation in depressed older primary care patients. *J Am Geriatr Soc.* 2006;54(10):1550-6.
220. Davidson K, Norrie J, Tyrer P, Gumley A, Tata P, Murray H, et al. The effectiveness of Cognitive Behavior Therapy for Borderline Personality Disorder: results from Borderline Personality Disorder Study of Cognitive Therapy (BOSCOT) Trial. *J Pers Disord.* 2006;20(5):450-65.
221. Goodyer IM, Dubicka B, Wilkinson P, Kelvin R, Roberts C, Byford S, et al. A randomised controlled trial of cognitive behaviour therapy in adolescents with major depression treated by selective serotonin reuptake inhibitors. The ADAPT trial. *Health Technol Assess.* 2008;12(14):iii-iv, ix-60.
222. Bateman K, Hansen L, Turkington D, Kingdon D. Cognitive behavioral therapy reduces suicidal ideation in schizophrenia: results from a randomized controlled trial. *Suicide Life Threat Behav.* 2007;37(3):284-90.
223. Slee N, Garnefski N, van der Leeden R, Arensman E, Spinhoven P. Cognitive-behavioural intervention for self-harm: randomised controlled trial. *Br J Psychiatry.* 2008;192(3):202-11.
224. Slee N, Spinhoven P, Garnefski N, Arensman E. Emotion Regulation as Mediator of Treatment Outcome in Therapy for Deliberate Self-Harm. *Clin Psychol Psychother.* 2008;15:205-16
225. Hazell PL, Martin G, McGill K, Kay T, Wood A, Trainor G, et al. Group therapy for repeated deliberate self-harm in adolescents: failure of replication of a randomized trial. *J Am Acad Child Adolesc Psychiatry.* 2009;48(6):662-70.
226. Green JM, Wood AJ, Kerfoot MJ, Trainor G, Roberts C, Rothwell J, et al. Group therapy for adolescents with repeated self-harm: randomised controlled trial with economic evaluation. *BMJ.* 2011;342:d682.
227. Clarkin JF, Levy KN, Lenzenweger MF, Kernberg OF. Evaluating Three Treatments for Borderline Personality Disorder: A Multiwave Study. *Am J Psychiatry.* 2007;164:922-8.
228. McMains SF, Links PS, Gnam WH, Guimond T, Cardish RJ, Korman L, et al. A randomized trial of dialectical behavior therapy versus general psychiatric management for borderline personality disorder. *Am J Psychiatry.* 2009;166(12):1365-74.
229. Guilé JM, Greenfield B, Breton JJ, Cohen D, Labelle R. Is psychotherapy effective for borderline adolescents? *Clinical Neuropsychiatry: Journal of Treatment Evaluation.* 2005;2(5):277-82.
230. Klerman G, Weissman MM. *Interpersonal Psychotherapy of Depression.* New York: Basic Books; 1989.
231. Guthrie E, Kapur N, MackwayJones K, Chew Graham C, Moorey J, Mendel E, et al. Papers Randomised controlled trial of brief psychological intervention after deliberate self-poisoning. *BMJ.* 2001;323(7305):135-8.
232. Bruce ML, Ten Have TR, Reynolds CF, Katz II, Schulberg HC, Mulsant BH, et al. Randomized Controlled Trial in Depressed Older Primary Care Patients: A Reducing Suicidal Ideation and Depressive Symptoms. *JAMA.* 2004;291(9):1081-91.
233. Alexopoulos GS, Reynolds CF, 3rd, Bruce ML, Katz IR, Raue PJ, Mulsant BH, et al. Reducing suicidal ideation and depression in older primary care patients: 24-month outcomes of the PROSPECT study. *Am J Psychiatry.* 2009;166(8):882-90.
234. Tang TC, Jou SH, Ko CH, Huang SY, Yen CF. Randomized study of school-based intensive interpersonal psychotherapy for depressed adolescents with suicidal risk and parasuicide behaviors. *Psychiatry Clin Neurosci.* 2009;63(4):463-70.

235. Harrington RC, Kerfoot M, Dyer E, McGiven F, Gill J, Harrington V, et al. Randomized trial of a home-based family intervention for children who have deliberately poisoned themselves. *J Am Acad Child Adolesc Psychiatry*. 1998;37:512-8.
236. Feixas G, Miró M. Aproximaciones a la psicoterapia: Una introducción a los tratamientos psicológicos. Barcelona: Paidós. 1993.
237. Gregory RJ, Remen AL. A manual-based psychodynamic therapy for treatment-resistant borderline personality disorder. *Psychotherapy (Chic)*. 2008;45:15-27.
238. Gregory RJ, Remen AL, Soderberg M, Ploutz-Snyder RJ. A controlled trial of psychodynamic psychotherapy for co-occurring borderline personality disorder and alcohol use disorder: six-month outcome. *J Am Psychoanal Assoc*. 2009;57(1):199-205.
239. Arnevik E, Wilberg T, Urnes O, Johansen M, Monsen JT, Karterud S. Psychotherapy for personality disorders: short-term day hospital psychotherapy versus outpatient individual therapy - a randomized controlled study. *Eur Psychiatry*. 2009;24(2):71-8.
240. Bousoño García M, Bobes García J, González-Quirós Corujo P. Tratamiento psicofarmacológico. En: *Prevención de las conductas suicidas y parasuicidas*. Barcelona: Masson; 1997.
241. Ros Montalbán S, Arranz Martí B, Peris Díaz MD. Aproximaciones terapéuticas preventivas. En: *Comportamientos suicidas Prevención y tratamiento*. Barcelona: Ars medica; 2004.
242. Pferrer C. Suicidal behavior in children and adolescents: causes and management. En: Martin A, Volkmar FR, eds. *Lewis's Child and Adolescent Psychiatry: A Comprehensive Textbook*. 4th ed. Philadelphia (PA): Lippinkott Williams and Wilkins; 2007.
243. American Academy of Child and Adolescent Psychiatry. Practice parameter for the assessment and treatment of children and adolescents with suicidal behaviour. *J Am Acad Child Adolesc Psychiatry*. 2001;40(7 Suppl):24S-51S.
244. Ernst CL, Goldberg JF. Anti-suicide Properties of Psychotropic Drugs: A Critical Review. *Harv Rev Psychiatry*. 2004;12(1):14-41.
245. Gibbons RD, Brown CH, Hur K, Marcus SM, Bhaumik DK, Mann JJ. Relationship between antidepressants and suicide attempts: an analysis of the Veterans Health Administration data sets. *Am J Psychiatry*. 2007;164(7):1044-9.
246. Grupo de Trabajo de la Guía de Práctica Clínica sobre la Depresión Mayor en la Infancia y en la Adolescencia. *Guía de Práctica Clínica sobre la Depresión Mayor en la Infancia y en la Adolescencia*. Santiago de Compostela: Axencia de Avaliación de Tecnoloxías Sanitarias de Galicia (avalía-t); 2009. Report no: avalía-t 2007/09.
247. Sakinofsky I. The Aftermath of Suicide: Managing Survivors' Bereavement. *Can J Psychiatry*. 2007;52(10S1):129S-36S.
248. Zisook S, Trivedi MH, Warden D, Lebowitz B, Thase ME, Stewart JW, et al. Clinical correlates of the worsening or emergence of suicidal ideation during SSRI treatment of depression: an examination of citalopram in the STAR*D study. *J Affect Disord*. 2009;117(1-2):63-73.
249. Mulder RT, Joyce PR, Frampton CM, Luty SE. Antidepressant treatment is associated with a reduction in suicidal ideation and suicide attempts. *Acta Psychiatr Scand*. 2008;118(2):116-22.
250. Magellan Clinical Practice Guideline for Assessing and Managing the Suicidal Patient: Magellan Health Services; 2008. Report no: 6/08 v.2.
251. Baldessarini R, Pompili M, Tondo L, Tsapakis E, Soldani F, Faedda G, et al. Antidepressants and suicidal behavior: Are we hurting or helping? *Clin Neuropsychiatry*. 2005;2:73-5.
252. Yerevanian BI, Koek RJ, Mintz J, Akiskal HS. Bipolar pharmacotherapy and suicidal behavior. Part 2: The impact of antidepressants. *J Affect Disord*. 2007;103(1-3):13-21.

253. Ghaemi SN, Rosenquist KJ, Ko JY, Baldassano CF, Kontos NJ, Baldessarini RJ. Antidepressant treatment in bipolar versus unipolar depression. *Am J Psychiatry*. 2004;161(1):163-5.
254. Kraus JE, Horrigan JP, Carpenter DJ, Fong R, Barrett PS, Davies JT. Clinical features of patients with treatment-emergent suicidal behavior following initiation of paroxetine therapy. *J Affect Disord*. 2010;120(1-3):40-7.
255. Teicher MH, Glod C, Cole JO. Emergence of intense suicidal preoccupation during fluoxetine treatment. *Am J Psychiatry*. 1990;147(2):207-10.
256. Bridge JA, Barbe RP, Birmaher B, Kolko DJ, Brent DA. Emergent suicidality in a clinical psychotherapy trial for adolescent depression. *Am J Psychiatry*. 2005;162(11):2173-5.
257. Joint Royal College of Paediatrics and Child Health/Neonatal and Paediatric Pharmacists Group Standing Committee on Medicines. The Use of Unlicensed Medicines or Licensed Medicines for Unlicensed Applications in Paediatric Practice-Policy Statement. London: Royal College of Paediatrics and Child Health; 2002.
258. Duff G. Selective serotonin reuptake inhibitors-use in children and adolescents with major depressive disorder 2003 [cited 10 Nov, 2009]. Available at: <http://medicines.mhra.gov.uk/ourwork/monitorsafequalmed/safetymessages/seroxat18.pdf>
259. US Food and Drug Administration. FDA Public Health Advisory. Suicidality in Children and Adolescents Being Treated with Antidepressant Medications. Silver Spring (MD): FDA; 2004 [cited 13 Jun, 2008]. Available at: <http://www.fda.gov/cder/drug/antidepressants/SSRIPHA200410.htm>
260. US Food and Drug Administration. Antidepressant Use in Children, Adolescents, and Adults. Silver Spring (MD): FDA; 2007 [cited 17 Jun, 2008]. Available at: <http://www.fda.gov/cder/drug/antidepressants/default.htm>
261. European Medicines Agency. European Medicines Agency finalises review of antidepressants in children and adolescents. East Sussex: European Medicines Agency; 2005 [cited 19 Jun, 2008]. Available at: <http://www.emea.europa.eu/>
262. Agencia Española de Medicamentos y Productos Sanitarios. Información de la Agencia Española de Medicamentos (2005 y 2006): ISRS en el tratamiento depresivo mayor de niños y adolescentes. Madrid: Agencia Española de Medicamentos y Productos Sanitarios; 2006 [cited 19 Jun, 2008]. Available at: <http://www.agemed.es/profHumana/gpt/home.htm>
263. Agencia Española de Medicamentos y Productos Sanitarios. Comunicación sobre riesgos de medicamentos para profesionales sanitarios. Nota informativa. Fluoxetina en el tratamiento de la depresión mayor: ampliación de la indicación para niños y adolescentes. Madrid: Agencia Española de Medicamentos y Productos Sanitarios; 2006 [cited 18 Jun, 2008]. Available at: <http://www.agemed.es/profHumana/gpt/home.htm>
264. Stone M, Laughren T, Jones ML, Levenson M, Holland PC, Hughes A, et al. Risk of suicidality in clinical trials of antidepressants in adults: analysis of proprietary data submitted to US Food and Drug Administration. *BMJ*. 2009;339:b2880.
265. Silva H, Martínez JC. ¿Es efectivo que los antidepresivos aumentan el riesgo de suicidio? *Rev Med Chile* [Internet journal]. 2007 [cited; 135(9): Available at: http://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0034-98872007000900016&lng=es.
266. Díaz Marsá M, Sáiz González D, Carrasco Perera JL. Comportamientos suicidas y trastornos del control de los impulsos. En: *Comportamientos suicidas Prevención y tratamiento*. Barcelona: Ars-Medica; 2004.
267. Kim HF, Marangell LB, Yudofsky SC. Psychopharmacological treatment and electroconvulsive therapy. En: Simon RI, Hales RE, eds. *The American Psychiatric Publishing Textbook of suicide assessment and management*. Washington: The American Psychiatric Publishing; 2006.

268. Müller-Oerlinghausen B. Arguments for the specificity of the antisuicidal effect of lithium. *Eur Arch Psychiatry Clin Neurosci*. 2001;2:II/72-II/5.
269. Tondo L, Baldessarini RJ. Long-term lithium treatment in the prevention of suicidal behavior in bipolar disorder patients. *Epidemiol Psichiatr Soc*. 2009;18(2):179-83.
270. Koldobsky NM. Terapéutica farmacológica de los desordenes de la personalidad. *Psiquiatriacom* [Internet journal]. 2002 [cited 28 May, 2012]; 6(4): Available at: http://www.psiquiatria.com/articulos/tr_personalidad_y_habitos/11489/
271. Baldessarini RJ, Tondo L, Davis P, Pompili M, Goodwin FK, Hennen J. Decreased risk of suicides and attempts during long-term lithium treatment: a meta-analytical review. *Bipolar Disord*. 2006;8(5 Pt 2):625-39.
272. Cipriani A, Pretty H, Hawton K, Geddes JR. Lithium in the prevention of suicidal behavior and all-cause mortality in patients with mood disorders: a systematic review of randomized trials. *Am J Psychiatry*. 2005;162(10):1805-19.
273. Guzzetta F, Tondo L, Centorrino F, Baldessarini RJ. Lithium treatment reduces suicide risk in recurrent major depressive disorder. *J Clin Psychiatry*. 2007;68(3):380-3.
274. Schou M. The effect of prophylactic lithium treatment on mortality and suicidal behavior: a review for clinicians. *J Affect Disord*. 1998;50:253-9.
275. Baldessarini RJ, Tondo L. Suicidal risk during treatment of bipolar disorder patients with lithium versus anticonvulsants. *Pharmacopsychiatry*. 2009;42:72-5.
276. Lauterbach E, Felber W, Müller-Oerlinghausen B, Ahrens B, Bronisch T, Meyer T, et al. Adjunctive lithium treatment in the prevention of suicidal behaviour in depressive disorders: a randomised, placebo-controlled, 1-year trial. *Acta Psychiatr Scand*. 2008;118:469-79.
277. Collins JC, McFarland BH. Divalproex, lithium and suicide among Medicaid patients with bipolar disorder. *J Affect Disord*. 2008;107(1-3):23-8.
278. Yerevanian BI, Koek RJ, Mintz J. Bipolar pharmacotherapy and suicidal behavior. Part I: Lithium, divalproex and carbamazepine. *J Affect Disord*. 2007;103(1-3):5-11.
279. Pompili M, Tatarelli R. Suicidio e suicidologia: uno sguardo al futuro. *Minerva psichiatr*. 2007;48(1):99-118.
280. Goodwin FK, Fireman B, Simon GE, Hunkeler EM, Lee J, Revicki D. Suicide risk in bipolar disorder during treatment with lithium and divalproex. *JAMA*. 2003;290(11):1467-73.
281. Sauders K, Hawton K. The role of psychopharmacology in suicide prevention. *Epidemiol Psichiatr Soc*. 2009;18(3):172-8.
282. Gutiérrez-García AG, Contreras CM. El suicidio y algunos de sus correlatos neurobiológicos. Segunda parte. *Salud mental*. 2008;31(5):417-25.
283. Yerevanian BI, Koek RJ, Mintz J. Lithium, anticonvulsants and suicidal behavior in bipolar disorder. *J Affect Disord*. 2003;73:223-8.
284. Sondergard L, López AG, Andersen PK, Kessing LV. Mood-stabilizing pharmacological treatment in bipolar disorders and risk of suicide. *Bipolar Disord*. 2008;10(1):87-94.
285. Houston JP, Ahl J, Meyers AL, Kaiser CJ, Tohen M, Baldessarini RJ. Reduced suicidal ideation in bipolar I disorder mixed-episode patients in a placebo-controlled trial of olanzapine combined with lithium or divalproex. *J Clin Psychiatry*. 2006;67(8):1246-52.
286. FDA US Food and Drug Administration. Antiepileptic Drugs. Rockville (MD): FDA; 2008 [cited 21 sep 2010]. Available at: <http://www.fda.gov/Safety/MedWatch/SafetyInformation/SafetyAlertsforHumanMedicalProducts/ucm074939.htm>

287. Patorno E, Bohn RL, Wahl PM, Avorn J, Patrick AR, Liu J, et al. Anticonvulsant Medications and the Risk of Suicide, Attempted Suicide, or Violent Death. *JAMA*. 2010;303(14):1401-9.
288. Bjerring Olesen J, Riis Hansen P, Erdal J, Zabell Abildstrom S, Weeke P, Loldrup Fosbol E, et al. Antiepileptic drugs and risk of suicide: a nationwide study. *Pharmacoepidemiol Drug Saf*. 2010;19:518-24.
289. Gibbons RD, Hur K, Brown CH, Mann JJ. Relationship between antiepileptic drugs and suicide attempts in patients with bipolar disorder. *Arch Gen Psychiatry*. 2009;66(12):1354-60.
290. Arana A, Wentworth CE, Ayuso-Mateos JL, Arellano FM. Suicide-related events in patients treated with antiepileptic drugs. *NEJM*. 2010;363(6):542-51.
291. Sernyak MJ, Desai R, Stolar M, Rosenheck R. Impact of clozapine on completed suicide. *Am J Psychiatry*. 2001;158(6):931-7.
292. Meltzer HY, Alphs L, Green AI, Altamura AC, Anand R, Bertoldi A, et al. Clozapine treatment for suicidality in schizophrenia: International Suicide Prevention Trial (InterSePT). *Arch Gen Psychiatry*. 2003;60(1):82-91.
293. Wagstaff A, Perry C. Clozapine: in prevention of suicide in patients with schizophrenia or schizoaffective disorder. *CNS drugs*. 2003;17(4):273-80.
294. Reeves H, Batra S, May RS, Zhang R, Dahl DC, Li X. Efficacy of risperidone augmentation to antidepressants in the management of suicidality in major depressive disorder: a randomized, double-blind, placebo-controlled pilot study. *J Clin Psychiatry*. 2008;69(8):1228-336.
295. Stellungnahme zur Elektrokrampftherapie (EKT) als psychiatrische Behandlungsmassnahme. *Deutsches Ärzteblatt*. 2003(3).
296. National Institute of Clinical Excellence. Guidance on the use of Electroconvulsive Therapy. London: NICE; 2003. Report no: 59.
297. Royal College of Psychiatrists ECT handbook. The Third Report of the Royal College of Psychiatrists' Special Committee on ECT (Council Report CR128). London: Royal College of Psychiatrists; 2005.
298. The Royal Australian and New Zealand College of Psychiatrists. Clinical Memorandum #12. Electroconvulsive Therapy. Guidelines on the administration of electroconvulsive therapy (ECT). New Zealand: The Royal Australian and New Zealand College of Psychiatrists; 2005.
299. Falconer DW, Cleland J, Fielding S, Reid IC. Using the Cambridge Neuropsychological Test Automated Battery (CANTAB) to assess the cognitive impact of electroconvulsive therapy on visual and visual-spatial memory. *Psychol Med*. 2009;40(6):1017-25.
300. Sociedad Española de Psiquiatría. Consejo español sobre la terapia electroconvulsiva (TEC). Madrid: Sociedad Española de Psiquiatría; 1999 [cited 2 Dec, 2010]. Available at: <http://www.sepsiq.org/informacion/noticia/2009-12-15/136>
301. Greenhalgh J, Knight C, Hind D, Beverley C, Walters S. Clinical and cost-effectiveness of electroconvulsive therapy for depressive illness, schizophrenia, catatonia and mania: Systematic reviews and economic modelling studies. *Health Technol Assess*. 2005;9(9):94.
302. Hawkins JM, Archer KJ, Strakowski SM, Keck PE. Somatic treatment of catatonia. *International journal of psychiatry in medicine*. 1995;25(4):345-69.
303. Miller L. Use of electroconvulsive therapy during pregnancy. *Hosp Community Psychiatry*. 1994;45(5):444-50.
304. SURE (Service User Research Enterprise). Review of Consumers Perspectives on Electroconvulsive Therapy. London: Department of Health;2002 [cited 2 Nov, 2010]. Available at: <http://www.healthplace.com/images/stories/depression/ec-consumerperspectives.pdf>

305. Walter G, Rey JM, Mitchell PB. Practitioner review: electroconvulsive therapy in adolescents. *J Child Psychol Psychiatry*. 1999;40(3):325-34.
306. UK ECT Review Group. Efficacy and safety of electroconvulsive therapy in depressive disorders: a systematic review and meta-analysis. *Lancet*. 2003;361(9360):799-808.
307. Tharyan P, Adams CE. Electroconvulsive therapy for schizophrenia. *Cochrane database of systematic reviews (Online)*. 2002(2):CD000076.
308. Tsuang MT, Dempsey GM, Fleming JA. Can ECT prevent premature death and suicide in 'schizo-affective' patients? *J Affect Disord*. 1979;1(3):167-71.
309. Avery D, Winokur G. Mortality in depressed patients treated with electroconvulsive therapy and antidepressants. *Arch Gen Psychiatry*. 1976;33(9):1029-37.
310. Babigian HM, Guttmacher LB. Epidemiologic considerations in electroconvulsive therapy. *Arch Gen Psychiatry*. 1984;41(3):246-53.
311. Black DW, Winokur G, Monandoss E, Woolson RF, Nasrallah A. Does treatment influence mortality in depressives? *Ann Clin Psychiatry*. 1989;1:165-73.
312. Sharma V. Retrospective controlled study of in-patient ECT: does it prevent suicide? *J Affect Disord*. 1999;56(2-3):183-7.
313. Patel M, Patel S, Hardy DW, Benzies BJ, Tare V. Should Electroconvulsive Therapy Be an Early Consideration for Suicidal Patients? *The journal of ECT*. 2006;22(2):113-5.
314. Brådvik L, Berglund M. Long-term treatment and suicidal behavior in severe depression: ECT and antidepressant pharmacotherapy may have different effects on the occurrence and seriousness of suicide attempts. *Depress Anxiety*. 2006;23(1):34-41.
315. Kellner CH, Fink M, Knapp R, Petrides G, Husain M, Rummans T, et al. Relief of expressed suicidal intent by ECT: a consortium for research in ECT study. *Am J Psychiatry*. 2005;162(5):977-82.
316. American Psychiatric Association. *The practice of electroconvulsive therapy: recommendations for treatment, training and privileging*. 2nd ed. Washington, DC: APA; 2001.
317. World Health Organisation. *Prevención del Suicidio*. Ginebra: Organización Mundial de la Salud; 1969. Report no: 35.
318. van der Feltz-Cornelis CM, Sarchiapone M, Postuvan V, Volker D, Roskar S, Grum AT, et al. Best practice elements of multi-level suicide prevention strategies: a review of systematic reviews. *Crisis*. 2011;32(6):319-33.
319. World Health Organisation. *Estudio de intervención multicéntrico sobre comportamientos suicidas SUPRE-MISS: protocolo de SUPRE-MISS*. Ginebra: Organización Mundial de la Salud. Report no: WHO/MSD/MBD/02.1.
320. World Health Organisation. *Prevención del suicidio: Un instrumento para los medios de comunicación* [Internet]. Geneva: World Health Organisation; 2000. [cited 9 Dec, 2011]. Available at: http://www.who.int/mental_health/media/media_spanish.pdf.
321. World Health Organisation. *Prevención del suicidio. Un instrumento para docentes y demás personal institucional*. Ginebra: Organización Mundial de la Salud; 2001.
322. World Health Organisation. *Prevención del suicidio. Recursos para consejeros*. Ginebra: Organización Mundial de la Salud; 2006.
323. World Health Organisation. *Prevención del suicidio en cárceles y prisiones*. Ginebra: Organización Mundial de la Salud; 2007.
324. World Health Organisation. *Prevención del suicidio. Un instrumento en el trabajo*. Ginebra: Organización Mundial de la Salud; 2006.

325. World Health Organisation. *Prevención del suicidio. Un instrumento para policías, bomberos y otros socorristas de primera línea.* Ginebra: Organización Mundial de la Salud; 2009.
326. World Health Organisation. *Prevención del suicidio. ¿Cómo establecer un grupo de supervivientes?* Ginebra: Organización Mundial de la Salud; 2000.
327. *Suicide prevention.* WHO European Ministerial Conference on Mental Health; Helsinki: World Health Organisation; 2005.
328. *National Suicide Prevention Strategy for England.* London: Department of Health; 2002.
329. Beautrais A, Fergusson D, Coggan C, Collings C, Doughty C, Ellis P, et al. Effective strategies for suicide prevention in New Zealand: a review of the evidence. *NZMJ.* 2007;120(1251):1-13.
330. National Office for Suicide Prevention (NOSP). *Annual Report 2010.* Dublin: National Office for Suicide Prevention (NOSP); 2011.
331. U.S. Department of health and human services. *National strategy for suicide prevention: goals and objectives for action.* Rockville (MD): U.S. Department of health and human services; 2001.
332. Mann JJ, Apter A, Bertolote J, Beautrais A, Currier D, Haas A, et al. Suicide prevention strategies: a systematic review. *JAMA.* 2005;294(16):2064-74.
333. Yip PS. Towards evidence-based suicide prevention programs. *Crisis.* 2011;32(3):117-20.
334. Leitner M, Barr W, Hobby L. Effectiveness of interventions to prevent suicide and suicidal behaviour: a systematic review. Edinburgh: Scottish Government Social Research; 2008.
335. Guo B, Scott A, Bowker S. *Suicide Prevention Strategies: Evidence from Systematic Reviews.* Edmonton: Alberta Heritage Foundation for Medical Research. Health Technology Assessment; 2003.
336. De leo D. Suicide prevention is far more than a psychiatric business. *World psychiatry.* 2004;3(3):155-6.
337. Hegerl U, Mergl R, Havers I, Schmidtke A, Lehfeld H, Niklewski G, et al. Sustainable effects on suicidality were found for the Nuremberg alliance against depression. *Eur Arch Psychiatry Clin Neurosc.* 2010;260:401-6.
338. Hegerl U, Althaus D, Schmidtke A, Niklewski G. The alliance against depression: 2-year evaluation of a community-based intervention to reduce suicidality. *Psychol Med.* 2006;36:1225-33.
339. Hegerl U, Wittenburg L, Arensman E, Van Audenhove C, Coyne JC, McDaid D, et al. Optimizing suicide prevention programs and their implementation in Europe (OSPI Europe): an evidence-based multi-level approach. *BMC Public Health.* 2009;9:428.
340. Hegerl U, Wittmann M, Arensman E, Van Audenhove C, Bouleau JH, Van Der Feltz-Cornelis C, et al. The 'European Alliance Against Depression (EAAD): a multi-faceted, community-based action programme against depression and suicidality. *World J Biol Psychiatry.* 2008;9(1):51-8.
341. *European Pact for Mental Health and Well-Being.* EU high level Conference Together for Mental Health and Wellbeing; Brussels: World Health Organisation; 2008.
342. Ayuso-Mateos JL, Baca-García E, Bobes J, Giner J, Giner L, Pérez V, et al. Recomendaciones preventivas y manejo del comportamiento suicida en España. *Rev Psiquiatr Salud Ment.* 2012;5(1):8-23.
343. Steele MM, Doey T. Suicidal behaviour in children and adolescents. Part 1: aetiology and risk factors. *Can J Psychiatry.* 2007;52(6 Suppl 1):21S-33S.
344. Malfent D, Wondrak T, Kapusta ND, Sonneck G. Suicidal ideation and its correlates among elderly in residential care homes. *Int J Geriatr Psychiatry.* 2010;25:843-9.

345. Peña JB, Kuhlberg JA, Zayas LH, Baumann AA, Gulbas L, Hausmann-Stabile C, et al. Familism, Family Environment, and Suicide Attempts among Latina Youth. *Suicide Life Threat Behav.* 2011;41(3):330-41.
346. Johnson J, Wood AM, Gooding P, Taylor PJ, Tarrier N. Resilience to suicidality: the buffering hypothesis. *Clin Psychol Rev.* 2011;31(4):563-91.
347. Garmezy N. Resilience in children's adaptation to negative life events and stressed environments. *Pediatr Ann.* 1991;20(9):459-60, 63-6.
348. Lapierre S, Erlangsen A, Waern M, De Leo D, Oyama H, Scocco P, et al. A systematic review of elderly suicide prevention programs. *Crisis.* 2011;32(2):88-98.
349. Wyman PA, Brown CH, LoMurray M, Schmeelk-Cone K, Petrova M, Yu Q, et al. An outcome evaluation of the sources of strength suicide prevention program delivered by adolescent peer leaders in high schools. *Am J Public Health.* 2010;100(9):1653-61.
350. Tsey K, Whiteside M, Haswell-Elkins M, Bainbridge R, Cadet-James Y, Wilson A. Empowerment and Indigenous Australian health: a synthesis of findings from Family Wellbeing formative research. *Health Soc Care Community.* 2010;18(2):169-79.
351. Lapierre S, Dubé M, Bouffard L, Alain M. Addressing suicidal ideations through the realization of meaningful personal goals. *Crisis.* 2007;28(1):16-25.
352. Heisel MJ, Duberstein P, Talbot NL, King DK, Tu X. Adapting interpersonal psychotherapy for older adults at risk for suicide: preliminary findings. *Prof Psychol Res Pract.* 2009;40:156-64.
353. World Health Organisation. Mental Health: Responsible and deglamourized media reporting [Internet]. Geneva: World Health Organisation [cited 9 Dec, 2011]. Available at: http://www.who.int/mental_health/mhgap/evidence/suicide/q9/en/index.html.
354. Niederkrotenthaler T, Voracek M, Herberth A, Till B, Strauss M, Etzersdorfer E, et al. Role of media reports in completed and prevented suicide: Werther v. Papageno effects. *Br J Psychiatry.* 2010;197(3):234-43.
355. Pirkis J, Blood RW, Beautrais A, Burgess P, Skehans J. Media Guidelines on the Reporting of Suicide. *Crisis.* 2006;27:82-7.
356. Stack S. Media impacts on suicide: A quantitative review of 293 findings. *Soc Sci Q.* 2000;81:957-71.
357. Pirkis J, Blood RW. Suicide and the media. Part 1: Reportage in non-fictional media. *Crisis.* 2001;22:146-54.
358. Pirkis J, Blood RW. Suicide and the media. Part II: Portrayal in fictional media. *Crisis.* 2001;22:155-62.
359. Sudak HS, Sudak DM. The media and suicide. *Acad Psychiatry.* 2005;29:495-9.
360. Etzersdorfer E, Sonneck G. Preventing suicide by influencing mass media reporting: The Viennese experience 1980-1996. *Arch Suicide Res.* 1998;4(1):67-74.
361. Niederkrotenthaler T, Sonneck G. Assessing the impact of media guidelines for reporting on suicides in Austria: interrupted time series analysis. *Aust N Z J Psychiatry.* 2007;41(5):419-28.
362. Fu KW, Yip PS. Changes in reporting of suicide news after the promotion of the WHO media recommendations. *Suicide Life Threat Behav.* 2008;38(5):631-6.
363. Collings SC, Kemp CG. Death knocks, professional practice, and the public good: the media experience of suicide reporting in New Zealand. *Soc Sci Med.* 2010;71(2):244-8.
364. Durkee T, Hadlaczky G, Westerlund M, Carli V. Internet Pathways in Suicidality: A Review of the Evidence. *Int J Environ Res Public Health.* 2011;8(10):3938-52.

365. Biddle L, Donovan J, Hawton K, Kapur N, Gunnell D. Suicide and the internet. *BMJ*. 2008;12:800-2.
366. Recupero PR, Harms SE, Noble JM. Googling suicide: surfing for suicide information on the Internet. *J Clin Psychiatry*. 2008;69(6):878-88.
367. McCarthy MJ. Internet monitoring of suicide risk in the population. *J Affect Disord*. 2010;122(3):277-9.
368. Dunlop SM, More E, Romer D. Where do youth learn about suicides on the Internet, and what influence does this have on suicidal ideation? *J Child Psychol Psychiatry*. 2011;52(10):1073-80.
369. Birbal R, Maharajh HD, Birbal R, Clapperton M, Jarvis J, Ragoonath A, et al. Cyber-suicide and the adolescent population: challenges of the future? *Int J Adolesc Med Health*. 2009;21(2):151-9.
370. Haas A, Koestner B, Rosenberg J, Moore D, Garlow SJ, Sedway J, et al. An interactive web-based method of outreach to college students at risk for suicide. *J Am Coll Health*. 2008;57(1):15-22.
371. Gilat I, Shahar G. Emotional first aid for a suicide crisis: comparison between Telephone hotline and internet. *Psychiatry*. 2007;70(1):12-8.
372. National Collaborating Centre for Mental Health. Self-harm: longer-term management. London: National Institute for Health and Clinical Excellence; 2011. Report no: 133.
373. Wasserman D, Rihmer Z, Rujescu D, Sarchiapone M, Sokolowski M, Titelman D, et al. The European Psychiatric Association (EPA) guidance on suicide treatment and prevention. *Eur Psychiatry*. 2012;27(2):129-41.
374. Gask L, Dixon C, Morris R, Appleby L, Green G. Evaluating STORM skills training for managing people at risk of suicide. *J Adv Nurs*. 2006;54(6):739-50.
375. Gask L, Lever-Green G, Hays R. Dissemination and implementation of suicide prevention training in one Scottish region. *BMC Health Serv Res*. 2008;8:246.
376. Ramberg IL, Wasserman D. Suicide-preventive activities in psychiatric care: evaluation of an educational programme in suicide prevention. *Nord J Psychiatry*. 2004;58(5):389-94.
377. Steele MM, Doey T. Suicidal behaviour in children and adolescents. Part 2: Treatment and Prevention. *Can J Psychiatry*. 2007;52(6 Suppl 1):35S-45S.
378. Browne A, Barber CW, Stone DM, Meyer AL. Public Health Training on the Prevention of Youth Violence and Suicide. *Am J Prev Med*. 2005;29(5S2):233-9.
379. Sudak D, Roy A, Sudak H, Lipschitz A, Maltzberger J, Hendin H. Deficiencies in suicide training in primary care specialties: a survey of training directors. *Acad Psychiatry*. 2007;31(5):345-9.
380. Roskar S, Podlesek A, Zorko M, Tavcar R, Dernovsek MZ, Groleger U, et al. Effects of training programme on recognition and management of depression and suicide risk evaluation for Slovenian primary care physicians: follow-up study. *Croat Med J*. 2010;51(3):237-42.
381. Sociedad Madrileña de Medicina de Familia y Comunitaria. Programa de Formación para Médicos de Atención Primaria de la CAM sobre Detección y Prevención del Suicidio y las Conductas Suicidas [Internet]. Madrid: Servicio Madrileño de Salud; 2010 [cited 12 Sep, 2011]. Available at: http://www.cibersam.es/opencms/export/sites/default/cibersam/modules/events/pdf/Suicidio_Programa.pdf
382. Taliaferro LA, Borowsky IW. Perspective: Physician education: a promising strategy to prevent adolescent suicide. *Acad Med*. 2011;86(3):342-7.
383. Zonda T, Lester D. Preventing suicide by educating general practitioners. *Omega (Westport)*. 2006;54(1):53-7.
384. Rutz W. Prevention of suicide and depression. *Nord J Psychiatry*. 1996;50(37):61-7.

385. Pisani AR, Cross WF, Gould MS. The assessment and management of suicide risk: state of workshop education. *Suicide Life Threat Behav.* 2011;41(3):255-76.
386. Horwitz SM, Heinberg LJ, Storfer-Isser A, Barnes DH, Smith M, Kapur R, et al. Teaching physicians to assess suicidal youth presenting to the emergency department. *Pediatr Emerg Care.* 2011;27(7):601-5.
387. Cailhol L, Allen M, Moncany AH, Cicotti A, Virgillito S, Barbe RP, et al. Violent behavior of patients admitted in emergency following drug suicidal attempt: a specific staff educational crisis intervention. *Gen Hosp Psychiatry.* 2007;29(1):42-4.
388. Shim RS, Compton MT. Pilot testing and preliminary evaluation of a suicide prevention education program for emergency department personnel. *Community Ment Health J.* 2010;46(6):585-90.
389. Chan SW, Chien WT, Tso S. Evaluating nurses' knowledge, attitude and competency after an education programme on suicide prevention. *Nurse Educ Today.* 2009;29(7):763-9.
390. Walker BL, Harrington SS, Cole CS. The usefulness of computer-based instruction in providing educational opportunities for nursing staff. *J Nurses Staff Dev.* 2006;22(3):144-9.
391. Tsai WP, Lin LY, Chang HC, Yu LS, Chou MC. The effects of the gatekeeper suicide awareness program for nursing personnel. *Perspect Psychiatr Care.* 2011;47(3):117-25.
392. Kato TA, Suzuki Y, Sato R, Fujisawa D, Uehara K, Hashimoto N, et al. Development of 2-hour suicide intervention program among medical residents: first pilot trial. *Psychiatry Clin Neurosci.* 2010;64(5):531-40.
393. Pedreira Crespo V. Desarrollos recientes en salud mental comunitaria en Galicia. *Psilogos- Revista do Serviço de Psiquiatria do Hospital Prof Doutor Fernando Fonseca* [Internet journal]. 2008 [cited; 6(1): Available at: http://www.psilogos.com/Revista/Vol6N1/Indice9_ficheiros/Crespo%20_%20P77-97.pdf
394. Pedreira Crespo V, (coord). *Plan Estratégico de Saúde Mental. Galicia 2006-2011.* Santiago de Compostela: Xunta de Galicia. Sergas; 2007.
395. Programa de prevención de la conducta suicida del sector Dreta de L'Eixample. Barcelona: Hospital de la Santa Creu I Snt Pau. Universitat Autònoma de Barcelona; 2006.
396. Tejedor MC, Díaz A, Faus G, Pérez V, Solà I. Resultados del programa de prevención de la conducta suicida. Distrito de la Dreta de l'Eixample de Barcelona. *Actas Esp Psiquiatr.* 2011;39(5):280-7.
397. Isaac M, Elias B, Katz LY, Belik SL, Deane FP, Enns MW, et al. Gatekeeper training as a preventive intervention for suicide: a systematic review. *Can J Psychiatry.* 2009;54(4):260-8.
398. Robinson J, Gook S, Yuen HP, McGorry PD, Yung AR. Managing deliberate self-harm in young people: an evaluation of a training program developed for school welfare staff using a longitudinal research design. *BMC Psychiatry.* 2008;8:75.
399. Gibbons MM, Studer JR. Suicide awareness training for faculty and staff: a training model for school counselors. *Professional School Counseling.* 2008;11:272-6.
400. Keller DP, Schut LJA, Puddy RW, Williams L, Stephens RL, McKeon R, et al. Tennessee Lives Count: Statewide gatekeeper training for youth suicide prevention. *Prof Psychol Res Pr.* 2009;40(2):126-33.
401. Thompson D, Goebert D, Takeshita J. A program for reducing depressive symptoms and suicidal ideation in medical students. *Acad Med.* 2010;85(10):1635-9.
402. Indelicato NA, Mirsu-Paun A, Griffin WD. Outcomes of a suicide prevention gatekeeper training on a university campus. *J Coll Stud Dev.* 2011;52(3):350-61.

403. Tompkins TL, Witt J, Abraibesh N. Does a gatekeeper suicide prevention program work in a school setting? Evaluating training outcome and moderators of effectiveness. *Suicide Life Threat Behav.* 2009;39(6):671-81.
404. Tsai WP, Lin LY, Chang WL, Chang HC, Chou MC. The effects of the suicide awareness program in enhancing community volunteers' awareness of suicide warning signs. *Arch Psychiatr Nurs.* 2010;24(1):63-8.
405. Matthieu MM, Cross W, Batres AR, Flora CM, Knox KL. Evaluation of gatekeeper training for suicide prevention in veterans. *Arch Suicide Res.* 2008;12(2):148-54.
406. Lu YJ, Chang HJ, Tung YY, Hsu MC, Lin MF. Alleviating psychological distress of suicide survivors: evaluation of a volunteer care programme. *J Psychiatr Ment Health Nurs.* 2011;18(5):449-56.
407. Fountoulakis KN, Rihmer Z. Suicide prevention programs through education in the community and in the frame of healthcare. En: *Evidence-based practice in suicidology: A source book.* Cambridge (MA): Hogrefe Publishing; 2011. p. 153-69.
408. Olfson M, Weissman MM, Leon AC, Sheehan DV, Farber L. Suicidal ideation in primary care. *J Gen Intern Med.* 1996;11(8):447-53.
409. Frankenfield DL, Keyl PM, Gielen A, Wissow LS, Werthamer L, Baker SP. Adolescent patients-healthy or hurting? Missed opportunities to screen for suicide risk in the primary care setting. *Arch Pediatr Adolesc Med.* 2000;154(2):162-8.
410. Gaynes BN, West SL, Ford CA, Frame P, Klein J, Lohr KN. Screening for suicide risk in adults: a summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med.* 2004;140(10):822-35.
411. UK National Screening Committee. Criteria for appraising the viability, effectiveness and appropriateness of screening programmes [Internet]. UK National Screening Committee, 2003 [cited 6 May, 2011]. Available at: <http://www.nsc.nhs.uk/>.
412. U.S. Preventive Services Task Force. Screening for suicide risk: recommendations and rationale. *Ann Intern Med.* 2004;140(10):820-1.
413. Voros V, Osvath P, Kovacs L, Varga J, Fekete S, Kovacs A. Screening for suicidal behaviour and mental disorders with Prime-MD questionnaire in general practice. *Prim Care Community Psychiatr.* 2006;11(4):193-6.
414. Spitzer RL, Williams JB, Kroenke K, Linzer M, deGruy FV, 3rd, Hahn SR, et al. Utility of a new procedure for diagnosing mental disorders in primary care. The PRIME-MD 1000 study. *JAMA.* 1994;272(22):1749-56.
415. Lecrubier Y, Sheehan DV, Weiller E, Amorim P, Bonora I, Sheehan KH, et al. The Mini International Neuropsychiatric Interview (MINI). A short diagnostic structured interview: reliability and validity according to CIDI. *Eur Psychiatry.* 1997;12:224-31.
416. Aseltine RH, James A, Schilling EA, Glanovsky J. Evaluation of the SOS suicide prevention program: a replication and extension. *BMC Public Health.* 2007;7:161.
417. Pena JB, Caine ED. Screening as an approach for adolescent suicide prevention. *Suicide Life Threat Behav.* 2006;36(6):614-37.
418. Williams SB, O'Connor EA, Eder M, Whitlock EP. Screening for child and adolescent depression in primary care settings: A systematic evidence review for the US Preventive Services Task Force. *Pediatrics.* 2009;123(4):e716-e35.
419. Zuckerbrot RA, Cheung AH, Jensen PS, Stein RE, Laraque D. Guidelines for Adolescent Depression in Primary Care (GLAD-PC): I. Identification, assessment and initial management. *Pediatrics.* 2007;120(5):e1299-312.

420. Screening for Major Depressive Disorder in Children and Adolescents, Topic Page [Internet]. Rockville (MD): U.S. Preventive Services Task Force; 2009 [cited 20 Jun, 2011]. Available at: <http://www.uspreventiveservicestaskforce.org/uspstf/uspshdepr.htm>
421. TeenScreen National Center for Mental Health Checkups [Internet]. New York: Columbia University; [cited 20 Jun, 2011]. Available at: <http://www.teenscreen.org>
422. Shaffer D, Craft L. Methods of adolescent suicide prevention. *J Clin Psychiatry*. 1999;60 Suppl 2:70-4.
423. Horowitz LM, Ballard ED, Pao M. Suicide screening in schools, primary care and emergency departments. *Curr Opin Pediatr*. 2009;21(5):620-7.
424. Nemeroff R, Levitt JM, Faul L, Wonpat-Borja A, Bufferd S, Setterberg S, et al. Establishing ongoing, early identification programs for mental health problems in our schools: a feasibility study. *J Am Acad Child Adolesc Psychiatry*. 2008;47(3):328-38.
425. Scott MA, Wilcox HC, Schonfeld IS, Davies M, Hicks RC, Turner JB, et al. School-based screening to identify at-risk students not already known to school professionals: the Columbia suicide screen. *Am J Public Health*. 2009;99(2):334-9.
426. Shaffer D, Wilcox H, Lucas CP. The development of a screening instrument for teens at risk for suicide; Poster presented at the meeting of the Academy of Child and Adolescent Psychiatry; New York. 1996.
427. Aseltine RH. An evaluation of a school-based suicide prevention program. *Adolescent & Fam Health*. 2003;3(2):17-25.
428. Aseltine RH, Jr., DeMartino R. An outcome evaluation of the SOS Suicide Prevention Program. *Am J Public Health*. 2004;94(3):446-51.
429. Gutierrez PM, Watkins R, Collura D. Suicide risk screening in an urban high school. *Suicide Life Threat Behav*. 2004;34(4):421-8.
430. Gould MS, Marrocco FA, Kleinman M, Thomas JG, Mostkoff K, Cote J, et al. Evaluating iatrogenic risk of youth suicide screening programs: a randomized controlled trial. *JAMA*. 2005;293(13):1635-43.
431. Hallfors D, Brodish PH, Khatapoush S, Sanchez V, Cho H, Steckler A. Feasibility of screening adolescents for suicide risk in "real-world" high school settings. *Am J Public Health*. 2006;96(2):282-7.
432. Wintersteen MB. Standardized screening for suicidal adolescents in primary care. *Pediatrics*. 2010;125(5):938-44.
433. Habis A, Tall L, Smith J, Guenther E. Pediatric emergency medicine physicians' current practices and beliefs regarding mental health screening. *Pediatr Emerg Care*. 2007;23(6):387-93.
434. Asarnow JR, Baraff LJ, Berk M, Grob C, Devich-Navarro M, Suddath R, et al. Pediatric emergency department suicidal patients: two-site evaluation of suicide ideators, single attempters and repeat attempters. *J Am Acad Child Psy* 2008;47(8):958-66.
435. Eaton DK, Kann L, Kinchen S, Shanklin S, Ross J, Hawkins J, et al. Youth risk behavior surveillance-United States, 2007. *MMWR Surveill Summ*. 2008;57(4):1-131.
436. King CA, O'Mara RM, Hayward CN, Cunningham RM. Adolescent suicide risk screening in the emergency department. *Acad Emerg Med*. 2009;16(11):1234-41.
437. Fein JA, Pailler ME, Barg FK, Wintersteen MB, Hayes K, Tien AY, et al. Feasibility and effects of a Web-based adolescent psychiatric assessment administered by clinical staff in the pediatric emergency department. *Arch Pediatr Adolesc Med*. 2010;164(12):1112-7.

438. Thompson EA, Eggert LL. Using the suicide risk screen to identify suicidal adolescents among potential high school drop-outs. *J Am Acad Child Adolesc Psychiatry*. 1999;38(12):1506-14.
439. Reynolds WM. Psychometric characteristics of the Adult Suicidal Ideation Questionnaire in college students. *J Pers Assess*. 1991;56(2):289-307.
440. Shaffer D, Scott M, Wilcox H, Maslow C, Hicks R, Lucas CP, et al. The Columbia Suicide Screen: validity and reliability of a screen for youth suicide and depression. *J Am Acad Child Adolesc Psychiatry*. 2004;43(1):71-9.
441. Scott M, Wilcox H, Huo Y, Turner JB, Fisher P, Shaffer D. School-based screening for suicide risk: balancing costs and benefits. *Am J Public Health*. 2010;100(9):1648-52.
442. Joe S, Bryant H. Evidence-Based Suicide Prevention Screening in Schools. *Child Sch*. 2007;29(4):219-27.
443. Lucas CP, Zhang H, Fisher PW, Shaffer D, Regier DA, Narrow WE, et al. The DISC Predictive Scales (DPS): efficiently screening for diagnoses. *J Am Acad Child Adolesc Psychiatry*. 2001;40(4):443-9.
444. Keane EM, Dick RW, Bechtold DW, Manson SM. Predictive and concurrent validity of the Suicidal Ideation Questionnaire among American Indian adolescents. *J Abnorm Child Psychol*. 1996;24(6):735-47.
445. Larzelere RE, Smith GL, Batenhorst LM, Kelly DB. Predictive validity of the suicide probability scale among adolescents in group home treatment. *J Am Acad Child Adolesc Psychiatry*. 1996;35(2):166-72.
446. O'Connell H, Chin AV, Cunningham C, Lawlor BA. Recent developments: suicide in older people. *BMJ*. 2004;329(7471):895-9.
447. Conwell Y, Duberstein PR, Cox C, Herrmann JH, Forbes NT, Caine ED. Relationships of age and axis I diagnoses in victims of completed suicide: a psychological autopsy study. *Am J Psychiatry*. 1996;153(8):1001-8.
448. Oyama H, Sakashita T, Ono Y, Goto M, Fujita M, Koida J. Effect of community-based intervention using depression screening on elderly suicide risk: a meta-analysis of the evidence from Japan. *Community Ment Health J*. 2008;44(5):311-20.
449. Oyama H, Sakashita T, Hojo K, Ono Y, Watanabe N, Takizawa T, et al. A community-based survey and screening for depression in the elderly: the short-term effect on suicide risk in Japan. *Crisis*. 2010;31(2):100-8.
450. Heisel MJ, Duberstein PR, Lyness JM, Feldman MD. Screening for suicide ideation among older primary care patients. *J Am Board Fam Med*. 2010;23(2):260-9.
451. Konrad N, Daigle MS, Daniel AE, Dear GE, Frottier P, Hayes LM, et al. Preventing suicide in prisons, part I. Recommendations from the International Association for Suicide Prevention Task Force on Suicide in Prisons. *Crisis*. 2007;28(3):113-21.
452. Perry AE, Marandos R, Coulton S, Johnson M. Screening tools assessing risk of suicide and self-harm in adult offenders: a systematic review. *Int J Offender Ther Comp Criminol*. 2010;54(5):803-28.
453. Stathis S, Letters P, Doolan I, Fleming R, Heath K, Arnett A, et al. Use of the Massachusetts Youth Screening Instrument to assess mental health problems in young people within an Australian youth detention centre. *J Paediatr Child Health*. 2008;44(7-8):438-43.
454. Deeley ST, Love AW. Does asking adolescents about suicidal ideation induce negative mood state? *Violence Vict*. 2010;25(5):677-88.

455. World Health Organisation. Mental health: Country reports and charts available. Geneva: WHO; 2011 [cited 21 Jun, 2011]. Available at: http://www.who.int/mental_health/prevention/suicide/country_reports/en/index.html
456. Instituto Nacional de Estadística. Salud. Defunciones según la causa de muerte Madrid: Instituto Nacional Estadística; 2011 [cited 24 Jun, 2011]. [approx. 2 screens]. Available at: <http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t15/p417&file=inebase&L=0>
457. Arán Barés M, Gispert R, Puig X, Freitas A, Ribas G, Puigdefàbregas A. Evolución temporal y distribución geográfica de la mortalidad por suicidio en Cataluña y España (1986-2002). *Gac Sanit.* 2006;20(6):473-80.
458. Hawton K, Harriss L. Deliberate self-harm by under-15-year-olds: characteristics, trends and outcome. *J Child Psychol Psychiatry.* 2008;49(4):441-8.
459. Arán Barés M, Gispert R, Puig X, Freitas A, Ribas G, Puigdefàbregas A. Evolución temporal y distribución geográfica de la mortalidad por suicidio en Cataluña y España (1986-2002). *Gac Sanit.* 2006;20(6):473-80.
460. Evans E, Hawton K, Rodham K. Factors associated with suicidal phenomena in adolescents: a systematic review of population-based studies. *Clin Psychol Rev.* 2004;24(8):957-79.
461. Vander Stoep A, Adrian M, Mc Cauley E, Crowell SE, Stone A, Flynn C. Risk for Suicidal Ideation and Suicide Attempts Associated with Co-occurring Depression and Conduct Problems in Early Adolescence. *Suicide Life Threat Behav.* 2011;41(3):316-29.
462. Goldstein TR, Birmaher B, Axelson D, Ryan ND, Strober MA, Gill MK, et al. History of suicide attempts in pediatric bipolar disorder: factors associated with increased risk. *Bipolar Disord.* 2005;7(6):525-35.
463. Axelson D, Birmaher B, Strober M, Gill MK, Valeri S, Laurel Chiappetta L, et al. Phenomenology of Children and Adolescents With Bipolar Spectrum Disorders. *Arch gen Psychiatry.* 2006;63:1139-48.
464. Schilling EA, Aseltine Jr RH, Glanovsky JL, James A, Jacobs D. Adolescent Alcohol Use, Suicidal Ideation, and Suicide Attempts. *J Adolesc Health.* 2009;44(4):335-41.
465. Chronis-Tuscano A, Molina BS, Pelham WE, Applegate B, Dahlke A, Overmyer M, et al. Very early predictors of adolescent depression and suicide attempts in children with attention deficit/hyperactivity disorder. *Arch gen Psychiatry.* 2010;67(10):1044-51.
466. Wong MM, Brower KJ, Zucker RA. Sleep problems, suicidal ideation, and self-harm behaviors in adolescence. *J Psychiatr Res.* 2011;45(4):505-11.
467. Goldstein TR, Bridge JA, Brent DA. Sleep disturbance preceding completed suicide in adolescents. *J Consult Clin Psychol.* 2008;76(1):84-91.
468. Patel K, Upthegrove R. Self-harm in first-episode psychosis. *Psychiatr Bull R Coll Psychiatr.* 2009;33(3):104-7.
469. Witte TK, Merrill KA, Stellrecht NE, Bernert RA, Hollar DL, Schatschneider C, et al. "Impulsive" youth suicide attempters are not necessarily all that impulsive. *J Affect Disord.* 2008;107(1-3):107-16.
470. Kasen S, Cohen P, Chen H. Developmental course of impulsivity and capability from age 10 to age 25 as related to trajectory of suicide attempt in a community cohort. *Suicide Life Threat Behav.* 2011;41(2):180-92.
471. Jacobson CM, Marrocco F, Kleinman M, Gould MS. Restrictive emotionality, depressive symptoms and suicidal thoughts and behaviors among high school students. *J Youth Adolesc.* 2011;40(6):656-65.

472. O'Connor RC, Rasmussen S, Hawton K. Predicting depression, anxiety and self-harm in adolescents: the role of perfectionism and acute life stress. *Behav Res Ther.* 2010;48(1):52-9.
473. Speckens AE, Hawton K. Social problem solving in adolescents with suicidal behavior: a systematic review. *Suicide Life Threat Behav.* 2005;35(4):365-87.
474. Wilcox HC, Arria AM, Caldeira KM, Vincent KB, Pinchevsky GM, O'Grady KE. Prevalence and predictors of persistent suicide ideation, plans, and attempts during college. *J Affect Disord.* 2010;127(1-3):287-94.
475. Brunstein Klomek A, Sourander A, Gould M. The association of suicide and bullying in childhood to young adulthood: a review of cross-sectional and longitudinal research findings. *Can J Psychiatry.* 2010;55(5):282-8.
476. McMahon EM, Reulbach U, Keeley H, Perry IJ, Arensman E. Bullying victimisation, self-harm and associated factors in Irish adolescent boys. *Soc Sci Med.* 2010;71(7):1300-7.
477. Klomek AB, Sourander A, Niemelä S, Kumpulainen K, Piha J, Tamminen T, et al. Childhood bullying behaviors as a risk for suicide attempts and completed suicides: a population-based birth cohort study. *J Am Acad Child Adolesc Psychiatry.* 2009;48(3):254-61.
478. Hinduja S, Patchin JW. Bullying, Cyberbullying, and Suicide. *Arch Suicide Res.* 2010;14:206–21.
479. Winterrowd E, Canetto SS, Chavez EL. Friendship factors and suicidality: common and unique patterns in Mexican American and European American youth. *Suicide Life Threat Behav.* 2011;41(1):50-65.
480. Lucassen MF, Merry SN, Robinson EM, Denny S, Clark T, Ameratunga S, et al. Sexual attraction, depression, self-harm, suicidality and help-seeking behaviour in New Zealand secondary school students. *Aust N Z J Psychiatry.* 2011;45(5):376-83.
481. Renaud J, Berlim MT, Begolli M, McGirr A, Turecki G. Sexual orientation and gender identity in youth suicide victims: An exploratory study. *Can J Psychiatry.* 2010;55(1):29-34.
482. Evans E, Hawton K, Rodham K. Suicidal phenomena and abuse in adolescents: a review of epidemiological studies. *Child Abuse Negl.* 2005;29:45-58.
483. Bruffaerts R, Demyttenaere K, Borges G, Haro JM, Chiu WT, Hwang I, et al. Childhood adversities as risk factors for onset and persistence of suicidal behaviour. *Br J Psychiatry.* 2010;197(1):20-7.
484. Colucci E, Martin G. Ethnocultural aspects of suicide in young people: a systematic literature review part 2: Risk factors, precipitating agents and attitudes toward suicide. *Suicide Life Threat Behav.* 2007;37(2):222-37.
485. Mann JJ, Waternaux C, Haas GL, Malone KM. Toward a clinical model of suicide in psychiatric patients. *Am J Psychiatry.* 1999;156:181–9.
486. Bhatia SK, Bhatia SC. Childhood and adolescent depression. *Am Fam Physician.* 2007;75(1):73-80.
487. Ougrin D, Zundel T, Ng A, Banarsee R, Bottle A, Taylor E. Trial of Therapeutic Assessment in London: Randomised controlled trial of Therapeutic Assessment versus standard psychosocial assessment in adolescents presenting with self-harm. *Archives of Disease in Childhood.* 2011;96(2):148-53.
488. Holi MM, Pelkonen M, Karlsson L, Tuisku V, Kiviruusu O, Ruuttu T, et al. Detecting suicidality among adolescent outpatients: evaluation of trained clinicians' suicidality assessment against a structured diagnostic assessment made by trained raters. *BMC Psychiatry.* 2008;8:97.
489. Beck AT, Steer RA. *Manual for the Beck Hopelessness Scale.* San Antonio: Psychological Corporation; 1988.

490. Beck RW, Morris JB, Beck AT. Cross-validation of the Suicidal Intent Scale. *Psychol Rep.* 1974;34(2):445-6.
491. Sanz J, Navarro ME, Vázquez C. Adaptación española del Inventario para la Depresión de Beck-II (BDI-II): 1. Propiedades psicométricas en estudiantes universitarios. *Análisis y Modificación de Conducta.* 2003;29:239-88.
492. Sanz J, Perdigón A, Vázquez C. Adaptación española del Inventario para la Depresión de Beck-II (BDI-II): 2. Propiedades psicométricas en población general. *Clínica y Salud.* 2003(14):249-80.
493. Sanz J, García MP, Espinosa R, Fortún M, Vázquez C. Adaptación española del Inventario para la Depresión de Beck-II (BDI-II): 3. Propiedades psicométricas en pacientes con trastornos psicológicos. *Clínica y Salud.* 2005;16:121-42.
494. Kaufman J, Birmaher B, Brent DA. Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version (K-SADS-PL): initial reliability and validity data. *J Am Acad Child Adolesc Psychiatry.* 1997;36:980-8.
495. Ulloa S, Ortiz F, Higuera I, Nogales A, Fresán R, Apiquian J, et al. Estudio de fiabilidad interevaluador de la versión en español de la entrevista Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime version (K-SADS-PL). *Actas Esp Psiquiatr.* 2006;34(1):36-40.
496. Poznanski EO, Grossman JA, Buchbaum Y, Banegas M, Freeman L, Gibbons R. Preliminary studies of the reliability and validity of the Children's Depression Scale. *J Am Acad Child Adolesc Psychiatry.* 1984;23:191-7.
497. Polaino A, Domenèch E. La depresión en los niños españoles de 4º de EGB. Barcelona: Geigy; 1988.
498. Cusimano MD, Sameem M. The effectiveness of middle and high school-based suicide prevention programmes for adolescents: a systematic review. *Inj Prev.* 2011;17:43-9.
499. Ciffone J. Suicide prevention: a classroom presentation to adolescents. *Soc Work.* 1993;38(2):197-203.
500. Kalafat J, Elias M. An evaluation of a school-based suicide awareness intervention. *Suicide Life Threat Behav.* 1994;24(3).
501. Kalafat J, Gagliano C. The use of simulations to assess the impact of an adolescent suicide response curriculum. *Suicide Life Threat Behav.* 1996;26(4).
502. Portzky G, van Heeringen K. Suicide prevention in adolescents: a controlled study of the effectiveness of a school-based psycho-educational program. *J Child Psychol Psychiatry Clin Neurosci.* 2006(47):910-18.
503. Ciffone J. Suicide prevention: an analysis and replication of a curriculum-based high school program. *Soc Work.* 2007;52:41-9.
504. Aseltine R, DeMartino R. An outcome evaluation of the SOS suicide prevention program. *Am J Public Health.* 2004;94(44):6-51.
505. Eggert LL, Thompson EA, Herting JR, Nicholas LJ. Reducing suicide potential among high-risk youth: tests of a school-based prevention program. *Suicide Life Threat Behav.* 1995;25(2):276-96.
506. Randell BP, Eggert LL, Pike KC. Immediate post intervention effects of two brief youth suicide prevention interventions. *Suicide Life Threat Behav.* 2001;31(1):41-61.
507. Gould MS, Greenberg T, Munfakh JL, Kleinman M, Lubell K. Teenagers' attitudes about seeking help from telephone crisis services (hotlines). *Suicide Life Threat Behav.* 2006;36(6):601-13.

508. King R, Nurcombe B, Bickman L, Hides L, Reid W. Telephone counselling for adolescent suicide prevention: changes in suicidality and mental state from beginning to end of a counselling session. *Suicide Life Threat Behav.* 2003;33(4):400-11.
509. Boehm KE, Campbell NB. Suicide: a review of calls to an adolescent peer listening phone service. *Child Psychiatry Hum Dev.* 1995;26:61-6.
510. King GD. An evaluation of the effectiveness of a telephone counseling center. *Am J Community Psychol.* 1977;5:75-83.
511. Slem CM, Cotler S. Crisis phone services: evaluation of a hotline program. *Am J Community Psychol.* 1973;1:219-27.
512. Gould MS, Greenberg T, Velting DM, Shaffer D. Youth suicide risk and preventive interventions: a review of the past 10 years. *J Am Acad Child Adolesc Psychiatry.* 2003;42(4):386-405.
513. Hagihara A, Miyazaki S, Abe T. Internet suicide searches and the incidence of suicide in young people in Japan. *Eur Arch Psychiatry Clin Neurosc.* 2011.
514. Szumilas M, Kutcher S. Teen suicide information on the Internet: a systematic analysis of quality. *Can J Psychiatry.* 2009;54(9):596-604.
515. Chan J, Draper B, Banerjee S. Deliberate self-harm in older adults: a review of the literature from 1995 to 2004. *Int J Geriatr Psychiatry.* 2007;22:720-32.
516. Conwell Y, Thompson C. Suicidal Behavior in Elders. *Psychiatric Clinics of North America.* 2008;31(2):333-56.
517. Hawton K, Harriss L. How often does deliberate self-harm occur relative to each suicide? A study of variations by gender and age. *Suicide Life Threat Behav.* 2008;38(6):650-60.
518. Instituto Nacional de Estadística. Salud. Defunciones según la causa de muerte 2009. Tasas de suicidios por edad y sexo por 100 000 habitantes de cada grupo. Madrid: Instituto Nacional Estadística; 2009 [cited 29 Jul, 2011]. Available at: <http://www.ine.es/jaxi/tabla.do?path=/t15/p417/a2009/10/&file=05008.px&type=pcaxis&L=0>
519. Miret M, Nuevo R, Morant C, Sainz-Corton E, Jimenez-Arriero MA, Lopez-Ibor JJ, et al. Differences Between Younger and Older Adults in the Structure of Suicidal Intent and Its Correlates. *Am J Geriatr Psychiatry.* 2010;18(9):839-47.
520. Dombrovski AY, Szanto K, Duberstein P, Conner KR, Houck PR, Conwell Y. Sex differences in correlates of suicide attempt lethality in late life. *Am J Geriatr Psychiatry.* 2008;16(11):905-13.
521. Crandall M, Luchette F, Esposito TJ, West M, Shapiro M, Bulger E. Attempted suicide and the elderly trauma patient: Risk factors and outcomes. *J Trauma.* 2007;62(4):1021-7.
522. Grek A. Clinical management of suicidality in the elderly: an opportunity for involvement in the lives of older patients. *Can J Psychiatry.* 2007;52(6 Suppl 1):47S-57S.
523. Wiktorsson S, Runeson B, Skoog I, Ostling S, Waern M. Attempted suicide in the elderly: Characteristics of suicide attempters 70 years and older and a general population comparison group. *Am J Geriatr Psychiatry.* 2010;18 (1):57-67.
524. Dennis MS, Wakefield P, Molloy C, Andrews H, Friedman T. A study of self-harm in older people: mental disorder, social factors and motives. *Ageing Ment Health.* 2007;11(5):520-5.
525. Tejedor MC. Aspectos clínicos del suicidio en el anciano deprimido. *Informaciones Psiquiátricas.* 2002;167:45-50.
526. Lacomblez L, Mahieux-laurent F. *Psychiatrie du sujet âgé.* Montrouge: Médecine-Sciences Flammarion; 1999.
527. Jacoby R, Oppenheimer C. *Psiquiatría en el anciano.* Barcelona: Masson; 2005.

528. Pfaff JJ, Almeida OP, Witte TK, Waesche MC, Joiner TE, Jr. Relationship between quantity and frequency of alcohol use and indices of suicidal behaviour in an elderly Australian sample. *Suicide Life Threat Behav.* 2007;37(6):616-26.
529. Hirsch JK, Duberstein PR, Unutzer J. Chronic medical problems and distressful thoughts of suicide in primary care patients: mitigating role of happiness. *Int J Geriatr Psychiatry.* 2009;24(7):671-9.
530. Anía BJ, Chinchilla E, Suárez-Almenara JL, Irurita J. Intentos de suicidio y suicidios consumados por los ancianos de una residencia. *Rev Esp Geriatr Gerontol.* 2003;38(3):170-4.
531. Aizenberg D, Olmer A, Barak Y. Suicide attempts amongst elderly bipolar patients. *J Affect Disord.* 2006;91(1):91-4.
532. Ritchie CW, King MB, Nolan F, O'Connor S, Evans M, Toms N, et al. The association between personality disorder and an act of deliberate self-harm in the older person. *Int Psychogeriatr.* 2011;23(2):299-307.
533. Harwood DM, Hawton K, Hope T, Harriss L, Jacoby R. Life problems and physical illness as risk factors for suicide in older people: a descriptive and case-control study. *Psychol Med.* 2006;36(9):1265-74.
534. Levy TB, Barak Y, Sigler M, Aizenberg D. Suicide attempts and burden of physical illness among depressed elderly in-patients. *Arch Gerontol Geriatr.* 2011;52(1):115-7.
535. Voaklander DC, Rowe BH, Dryden DM, Pahal J, Saar P, Kelly KD. Medical illness, medication use and suicide in seniors: a population-based case control study. *J Epidemiol Community Health.* 2008;62:138-46.
536. Haw C, Harwood D, Hawton K. Dementia and suicidal behavior: a review of the literature. *Int Psychogeriatr.* 2009;21(3):440-53.
537. Erlangsen A, Vach W, Jeune B. The effect of hospitalization with medical illnesses on the suicide risk in the oldest: A population-based register study. *J Am Geriatr Soc.* 2005;53(5):771-6.
538. Vanderhorst RK, McLaren S. Social relationships as predictors of depression and suicidal ideation in older adults. *Aging Ment Health.* 2005;9(6):517-25.
539. Yesavage JA, Brink TL, Rose TL, Lum O, Huang V, Adey M, et al. Development and validation of a geriatric depression screening scale: A preliminary report. *J Psychiatr Res.* 1983;17(1):37-49.
540. Fry PS. Development of a geriatric scale of hopelessness: Implications for counseling and intervention with the depressed elderly. *J Couns Psychol.* 1984;31(3):322-31.
541. Edelstein BA, Heisel MJ, McKee DR, Martin RR, Koven LP, Duberstein PR, et al. Development and Psychometric Evaluation of the Reasons for Living — Older Adults Scale: A Suicide Risk Assessment Inventory. *Gerontologist.* 2009;49(6): 736-45.
542. Awata S, Bech P, Koizumi Y, Seki T, Kuriyama S, Hozawa A, et al. Validity and utility of the Japanese version of the WHO-Five Well-Being Index in the context of detecting suicidal ideation in elderly community residents. *Int Psychogeriatr.* 2007;19(1):77-88.
543. Chen WJ, Chen CC, Ho CK, Lee MB, Chung YT, Wang YC, et al. The suitability of the BSRS-5 for assessing elderly people who have attempted suicide and need to be referred for professional mental health consultation in a metropolitan city, Taiwan. *Int J Geriatr Psychiatry.* 2009;24(10):1151-7.
544. Draper B, Brodaty H, Low LF, Richards V, Paton H, Lie D. Self-destructive behaviors in nursing home residents. *J Am Geriatr Soc.* 2002;50:354-8.
545. Heisel MJ, Flett GL. The development and initial validation of the Geriatric Suicide Ideation Scale. *Am J Geriatr Psychiatry.* 2006;14:742–51.

546. Izal M, Montorio I. Adaptación en nuestro medio de la Escala de Depresión Geriátrica (GDS) en distintos subgrupos: residentes en la comunidad y asistentes a hospitales de día. *Rev Gerontol.* 1996;6:329-37.
547. Martínez de la Iglesia J, Onís Vilches MC, Dueñas Herrero R, Albert Colomer C, Aguado Taberné C, Luque Luque R. Versión española del cuestionario de Yesavage abreviado (GDS) para el despistaje de depresión en mayores de 65 años: adaptación y validación. *MEDIFAM.* 2002;12(10):620-30.
548. Jané-Llopis E. La eficacia de la promoción de la salud mental y la prevención de los trastornos mentales. *Revista de la Asociación Española de Neuropsiquiatría.* 2004;24(89):67-77.
549. Kjolseth I, Ekeberg O, Steihaug S. Elderly people who committed suicide-their contact with the health service. What did they expect, and what did they get? *Aging Ment Health.* 2010;14(8):938-46.
550. Instituto Nacional de Estadística. Salud. Defunciones según la causa de muerte 2008. Suicidios por medio empleado, sexo y edad. Madrid: Instituto Nacional Estadística; 2008 [cited 27 Jun, 2011]. Available at: <http://www.ine.es/jaxi/tabla.do?path=/t15/p417/a2008/10/&file=05002.px&type=pcaxis&L=0>
551. Casado Blanco M. Suicidios en mayores de 65 años en la provincia de Badajoz: análisis médico legal. *Cuad med forense [Internet journal].* 2002 [cited 28 May, 2012]; (28): Available at: <http://scielo.isciii.es/pdf/cmfn28/original1.pdf>
552. Hawton K, Harriss L. Deliberate self-harm in people aged 60 years and over: characteristics and outcome of a 20-year cohort. *Int J Geriatr Psychiatry.* 2006;21(6):572-81.
553. De Leo D, Dello Buono M, Dwyer J. Suicide among the elderly: The long-term impact of a telephone support and assessment intervention in northern Italy. *Br J Psychiatry.* 2002;181:226-9.
554. Oyama H, Watanabe N, Ono Y, Sakashita T, Takenoshita Y, Taguchi M, et al. Community-based suicide prevention through group activity for the elderly successfully reduced the high suicide rate for females. *Psychiatry Clin Neurosci.* 2005;59(3):337-44.
555. Vannoy SD, Duberstein P, Cukrowicz K, Lin EH, Fan MY, Unützer J. The relationship between suicide ideation and late-life depression. *Am J Geriatr Psychiatry.* 2007;15(12):1024-33.
556. Chan SS, Leung VP, Tsoh J, Li SW, Yu CS, Yu GK, et al. Outcomes of a two-tiered multi-faceted elderly suicide prevention programme in a Hong Kong Chinese community. *Am J Geriatr Psychiatry.* 2011;19(2):185-96.
557. Mantilla Toloza C, Rodríguez M, Paz Velilla A. Atención del paciente suicida Guías Básicas de Atención Médica Prehospitalaria [cited 28 May, 2012]. Available at: http://www.tensiometrovirtual.com/upload/G001A_g.pdf
558. Christensen J, Vestergaard M, Mortensen PB, Sidenius P, Agerbo E. Epilepsy and risk of suicide: a population-based case-control study. *Lancet Neurol.* 2007;6(8):693-8.
559. Kanner AM. Suicidality and epilepsy: a complex relationship that remains misunderstood and underestimated. *Epilepsy Curr.* 2009;9(3):63-6.
560. McLean J, Maxwell M, Platt S, Harris F, Jepson R. Risk and protective factors for suicide and suicidal behaviour: A literature review. Edinburgh: Scottish Government Social Research; 2008.
561. Goodwin RD, Marusic A, Hoven CW. Suicide attempts in the United States: the role of physical illness. *Soc Sci Med.* 2003;56(8):1783-8.
562. Cano Domínguez P, Pena Andreu JM, Ruiz Ruiz M. Las conductas suicidas. Madrid: Medynet; [cited 31 May, 2011]. Available at: <http://www.medynet.com/usuarios/jraguilar/Manual%20de%20urgencias%20y%20Emergencias/suicidas.pdf>

563. Greydanus D, Patel D, Pratt H. Suicide risk in adolescents with chronic illness: implications for primary care and specialty pediatric practice: a review. *Dev Med Child Neurol.* 2010;52(12):1083-7.
564. Vera M, Reyes-Rabanillo ML, Huertas S, Juarbe D, Perez-Pedrogo C, Huertas A, et al. Suicide ideation, plans and attempts among general practice patients with chronic health conditions in Puerto Rico. *Int J Gen Med.* 2011;4:197-205.
565. Fisher BJ, Haythornthwaite JA, Heinberg LJ, Clark M, Reed J. Intención de suicidio en pacientes con dolor crónico. *Rev Soc Esp Dolor.* 2002;9:146-56.
566. Fishbain DA. The association of chronic pain and suicide. *Semin Clin Neuropsychiatry.* 1999;4(3):221-7.
567. Tang NK, Crane C. Suicidality in chronic pain: a review of the prevalence, risk factors and psychological links. *Psychol Med.* 2006;36(5):575-86.
568. Gilbert JW, Wheeler GR, Storey BB, Mick G, Richardson G, Westerfield G, et al. Suicidality in chronic non-cancer pain patients. *Int J Neurosci.* 2009;119(10):1968-79.
569. Wolfe F, Hassett AL, Walitt B, Michaud K. Mortality in fibromyalgia: a study of 8,186 patients over thirty-five years. *Arthritis Care Res (Hoboken).* 2011;63(1):94-101.
570. Calandre EP, Vilchez JS, Molina-Barea R, Tovar MI, Garcia-Leiva JM, Hidalgo J, et al. Suicide attempts and risk of suicide in patients with fibromyalgia: a survey in Spanish patients. *Rheumatology (Oxford).* 2011;50(10):1889-93.
571. Egea C, Sarabia A. Clasificaciones de la OMS sobre discapacidad. *Boletín del Real Patronato.* 2001(50):15-30.
572. Giannini MJ, Bergmark B, Kreshover S, Elias E, Plummer C, O'Keefe E. Understanding suicide and disability through three major disabling conditions: Intellectual disability, spinal cord injury, and multiple sclerosis. *Disabil Health J.* 2010;3(2):74-8.
573. Kishi Y, Robinson RG, Kosier JT. Suicidal ideation among patients with acute life-threatening physical illness: patients with stroke, traumatic brain injury, myocardial infarction and spinal cord injury. *Psychosomatics.* 2001;42(5):382-90.
574. Kaplan MS, McFarland BH, Huguet N, Newsom JT. Physical illness, functional limitations and suicide risk: a population-based study. *Am J Orthopsychiatry.* 2007;77(1):56-60.
575. Everett Jones S, Lollar DJ. Relationship between physical disabilities or long-term health problems and health risk behaviors or conditions among US high school students. *J Sch Health.* 2008;78(5):252-7.
576. Gadalla T. Association of comorbid mood disorders and chronic illness with disability and quality of life in Ontario, Canada. *Chronic Dis Can.* 2008;28(4):148-54.
577. Zochling J, Braun J. Mortality in ankylosing spondylitis. *Clin Exp Rheumatol.* 2008;26(5 Suppl 51):S80-4.
578. Jurisic B, Marusic A. Suicidal ideation and behavior and some psychological correlates in physically disabled motor vehicle accident survivors. *Crisis.* 2009;30(1):34-8.
579. Dennis M, Baillon S, Brugha T, Lindesay J, Stewart R, Meltzer H. The influence of limitation in activity of daily living and physical health on suicidal ideation: results from a population survey of Great Britain. *Soc Psychiatry Psychiatr Epidemiol.* 2009;44(8):608-13.
580. Bill-Axelson A, Garmo H, Lambe M, Bratt O, Adolfsson J, Nyberg U, et al. Suicide Risk in Men with Prostate-Specific Antigen-Detected Early Prostate Cancer: A Nationwide Population-Based Cohort Study from PCBaSe Sweden. *Eur Urol.* 2009;57:390-5.

581. New York State Department of Health. Suicidality and violence in patients with HIV/AIDS. New York: New York State Department of Health; 2007.
582. Grupo de trabajo de la Guía de Práctica Clínica sobre la atención integral a las personas con enfermedad de Alzheimer y otras demencias. Guía de Práctica Clínica sobre la atención integral a las personas con enfermedad de Alzheimer y otras demencias. Plan de Calidad para el Sistema Nacional de Salud del Ministerio de Sanidad, Política Social e Igualdad. Agència d'Informació, Avaluació i Qualitat en Salut de Catalunya; 2010. Guías de Práctica Clínica en el SNS: AIAQS Núm. 2009/07.
583. Lago Canzobre S, Debén Sánchez M. Cuidados del cuidador del paciente con Demencia. Barcelona: Elsevier; [cited 14 Jun, 2011]. Available at: <http://www.fisterra.com/guias2/cuidador.asp>
584. Zabalegui Yárnoz A, Navarro Díez M, Cabrera Torres E, Gallart Fernández-Puebla A, Bardallo Porrás D, Rodríguez Higuera E, et al. Eficacia de las intervenciones dirigidas a cuidadores principales de personas dependientes mayores de 65 años. Una revisión sistemática. *Rev Esp Geriatr Gerontol*. 2008;43(3):157-66.
585. Akkerman RL, Ostwald SK. Reducing anxiety in Alzheimer's disease family caregivers: the effectiveness of a nine-week cognitive-behavioral intervention. *Am J Alzheimers Dis Other Demen*. 2004;19(2):117-23.
586. Chang BL. Cognitive-behavioral intervention for homebound caregivers of persons with dementia. *Nurs Res*. 1999;48(3):173-82.
587. Buckwalter KC, Gerdner L, Kohout F, Hall GR, Kelly A, Richards B, et al. A nursing intervention to decrease depression in family caregivers of persons with dementia. *Arch Psychiatr Nurs*. 1999;13(2):80-8.
588. Coon DW, Thompson L, Steffen A, Sorocco K, Gallagher-Thompson D. Anger and depression management: psychoeducational skill training interventions for women caregivers of a relative with dementia. *Gerontologist*. 2003;43(5):678-89.
589. Marriott A, Donaldson C, Tarrier N, Burns A. Effectiveness of cognitive-behavioural family intervention in reducing the burden of care in carers of patients with Alzheimer's disease. *Br J Psychiatry*. 2000;176:557-62.
590. Mittelman MS, Roth DL, Haley WE, Zarit SH. Effects of a caregiver intervention on negative caregiver appraisals of behavior problems in patients with Alzheimer's disease: results of a randomized trial. *J Gerontol B Psychol Sci Soc Sci*. 2004;59(1):P27-34.
591. Roth DL, Mittelman MS, Clay OJ, Madan A, Haley WE. Changes in social support as mediators of the impact of a psychosocial intervention for spouse caregivers of persons with Alzheimer's disease. *Psychol Aging*. 2005;20(4):634-44.
592. Teri L, McCurry SM, Logsdon R, Gibbons LE. Training community consultants to help family members improve dementia care: a randomized controlled trial. *Gerontologist*. 2005;45(6):802-11.
593. Gitlin LN, Corcoran M, Winter L, Boyce A, Hauck WW. A randomized, controlled trial of a home environmental intervention: effect on efficacy and upset in caregivers and on daily function of persons with dementia. *Gerontologist*. 2001;41(1):4-14.
594. Larson J, Franzen-Dahlin A, Billing E, Arbin M, Murray V, Wredling R. The impact of a nurse-led support and education programme for spouses of stroke patients: a randomized controlled trial. *J Clin Nurs*. 2005;14(8):995-1003.
595. Toseland RW, McCallion P, Smith T, Huck S, Bourgeois P, Garstka TA. Health education groups for caregivers in an HMO. *J Clin Psychol*. 2001;57(4):551-70.

596. Mizuno E, Hosak T, Ogihara R, Higano H, Mano Y. Effectiveness of a stress management program for family caregivers of the elderly at home. *J Med Dent Sci.* 1999;46(4):145-53.
597. Hernández-Viadel M, Guillem-Miralles JL, Pérez-Prieto JF, Leal-Cercos C. Homicidio-suicidio en el anciano: ¿por qué el cuidador mata a su pareja con enfermedad de Alzheimer y después se suicida? *Psiquiatr Biol.* 2006;13(1):30-4.
598. Andersen K, Hawgood J, Klieve H, Kolves K, De Leo D. Suicide in selected occupations in Queensland: evidence from the State suicide register. *Aust N Z J Psychiatry.* 2010;44(3):243-9.
599. Platt B, Hawton K, Simkin S, Mellanby RJ. Systematic review of the prevalence of suicide in veterinary surgeons. *Occup Med (Lond).* 2010;60(6):436-46.
600. Pompili M, Innamorati M, Narciso V, Kotzalidis GD, Dominici G, Talamo A, et al. Burnout, hopelessness and suicide risk in medical doctors. *Clin Ter.* 2010;161(6):511-4.
601. Schwenk TL, Davis L, Wimsatt LA. Depression, stigma and suicidal ideation in medical students. *JAMA.* 2010;304(11):1181-90.
602. Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, et al. Burnout and suicidal ideation among U.S. medical students. *Ann Intern Med.* 2008;149(5):334-41.
603. Bagley SC, Munjas B, Shekelle P. A systematic review of suicide prevention programs for the military and veterans. *Suicide Life Threat Behav.* 2010;40(3):257-65.
604. Knox KL, Pflanz S, Talcott GW, Campise RL, Lavigne JE, Bajorska A, et al. The US Air Force suicide prevention program: implications for public health policy. *Am J Public Health.* 2010;100(12):2457-63.
605. Levenson RL, Jr., O'Hara AF, Clark R, Sr. The Badge of Life Psychological Survival for Police Officers Program. *Int J Emerg Ment Health.* 2010;12(2):95-101.
606. Takada M, Shima S. Characteristics and effects of suicide prevention programs: comparison between workplace and other settings. *Ind Health.* 2010;48(4):416-26.
607. Violanti JM. Police suicide: a national comparison with fire-fighter and military personnel. *An International Journal of Police Strategies & Management.* 2009;33(2):270-86.
608. Rehkopf DH, Buka SL. The association between suicide and the socio-economic characteristics of geographical areas: A systematic review. *Psychol Med.* 2006;36(2):145-57.
609. Centers for Disease Control and Prevention. CDC Study Finds Suicide Rates Rise and Fall with Economy. Study looks at suicide rates from 1928–2007 [Internet]. Atlanta: CDC; 2011 [cited 28 May, 2012]. Available at: http://www.cdc.gov/media/releases/2011/p0414_suiciderates.html
610. Piñuel y Zabala I. *Mobbing: como sobrevivir al acoso psicológico en el trabajo.* Santander: Sal Terrae; 2001.
611. González Rodríguez VM, de Cabo Astorga MÁ, Martín Martín C, Franco Martín MÁ. *El mobbing. Aspectos conceptuales y cuestiones prácticas para el médico de familia sobre las conductas de acoso psicológico en el trabajo.* Madrid: Novartis; 2004.
612. Balducci C, Alfano V, Fraccaroli F. Relationships between mobbing at work and MMPI-2 personality profile, post-traumatic stress symptoms and suicidal ideation and behaviour. *Violence Vict.* 2009;24(1):52-67.
613. Leymann H. The content and development of mobbing at work. *European Journal of Work and Organisational Psychology.* 1996;5(2):165-84.
614. Long B. Psychologic aspects of the hostile workplace: Harassment and bullying. *Clin Occup Environ Med.* 2003;3(4):803-20.

615. U S Preventive Services Task Force. Screening for Family and Intimate Partner Violence: Recommendation Statement. *Ann Intern Med.* 2004;140:382-6.
616. Pompili M, Lester D, Innamorati M, De Pisa E, Iliceto P, Puccinno M, et al. Suicide risk and exposure to mobbing. *Work.* 2008;31(2):237-43.
617. Yildirim A, Yildirim D. Mobbing in the workplace by peers and managers: mobbing experienced by nurses working in healthcare facilities in Turkey and its effect on nurses. *J Clin Nurs.* 2007;16(8):1444-53.
618. Yildirim D, Yildirim A, Timucin A. Mobbing behaviours encountered by nurse teaching staff. *Nurs Ethics.* 2007;14(4):447-63.
619. Pérez Bilbao J, Sancho Figueroa T. Acoso sexual en el trabajo. Madrid: Ministerio de Trabajo y Asuntos Sociales. Report no: NTP 507.
620. International Labour Office. Sexual harassment at work. Genève: International Labour Organisation; 2007.
621. Merino J, Cruceta G. El acoso sexual en el trabajo en Catalunya. Estudio de casos. *Rev d'estudis de la violencia [Internet journal].* 2009 [cited 28 May, 2012]; 7(1st quarter): Available at: http://www.navarra.es/NR/rdonlyres/D91FE499-4898-4EDD-AA09213A8AF122EA/153600/ICEV_Acoso_sexual.pdf
622. Asgeirsdottir BB, Sigfusdottir ID, Gudjonsson GH, Sigurdsson JF. Associations between sexual abuse and family conflict/violence, self-injurious behaviour and substance use: the mediating role of depressed mood and anger. *Child Abuse Negl.* 2011;35(3):210-9.
623. Espinoza-Gómez F, Zepeda-Pamplona V, Bautista-Hernández V, Hernández-Suárez CM, Newton-Sánchez OA, Plasencia-García GR. Violencia doméstica y riesgo de conducta suicida en universitarios adolescentes. *Salud Publica Mex.* 2010;52:213-9.
624. Muller D, Thomas H. The effectiveness of public health interventions to reduce or prevent spousal abuse toward women. Ontario: Effective Public Health Practice Project (EPHPP); 2001.
625. Renner LM, Markward MJ. Factors associated with suicidal ideation among women abused in intimate partner relationships. *Smith Coll Stud Soc Work.* 2009;79(2):139-54.
626. Dirección General de Instituciones Penitenciarias. Programa marco de prevención de suicidios. Madrid; 2005.
627. Pompili M, Lester D, Innamorati M, Del Casale A, Girardi P, Ferracuti S, et al. Preventing suicide in jails and prisons: suggestions from experience with psychiatric in-patients. *J Forensic Sci.* 2009;54(5):1155-62.
628. Horowitz LM, Wang PS, Koocher GP, Burr BH, Smith MF, Klavon S, et al. Detecting suicide risk in a pediatric emergency department: development of a brief screening tool. *Pediatrics.* 2001;107(5):1133-7.
629. Dyregrov K. What Do We Know About Needs for Help After Suicide in Different Parts of the World? *Crisis.* 2011;6:1-9.
630. Aguirre RTP, Slater H. Suicide postvention as suicide prevention: improvement and expansion in the United States. *Death Studies.* 2010;34:529-40.
631. Cvinar JG. Do suicide survivors suffer social stigma? A review of the literature. *Perspect Psychiatr Care.* 2005;41(1):14-21.
632. Maple M, Edwards H, Plummer D, Minichiello V. Silenced voices: hearing the stories of parents bereaved through the suicide death of a young adult child. *Health Soc Care Community.* 2010;18(3):241-8.

633. Dyregrov K. How do the young suicide survivors wish to be met by psychologists? A user study. *Omega (Westport)*. 2009;59(3):221-38.
634. Dyregrov K. The important role of the school following suicide in Norway. What support do young people wish school to provide? *Omega (Westport)*. 2009;59(2):147-61.
635. Andriessen K. Can Postvention Be Prevention? *Crisis*. 2009;30(1):43-7.
636. Szumilas M, Kutcher S. Post-suicide intervention programmes: a systematic review. *Can J Public Health*. 2011;102(1):18-29.
637. Constantino RE, Bricker PL. Nursing postvention for spousal survivors of suicide. *Issues Ment Health Nurs*. 1996;17(2):131-52.
638. Constantino RE, Sekula LK, Rubinstein EN. Group intervention for widowed survivors of suicide. *Suicide Life Threat Behav*. 2001;31(4):428-41.
639. Murphy SA, Johnson C, Cain KC, Das Gupta A, Dimond M, Lohan J, et al. Broad-spectrum group treatment for parents bereaved by the violent deaths of their 12 to 28-year-old children: a randomized controlled trial. *Death Stud*. 1998;22(3):209-35.
640. Pfeffer CR, Jiang H, Kakuma T, Hwang J, Metsch M. Group intervention for children bereaved by the suicide of a relative. *Am Acad Child Adolesc Psychiatry*. 2002;41(5):505-13.
641. Battle AO. Group therapy for survivors of suicide. *Crisis*. 1984;5(1):45-58.
642. Rogers J, Sheldon A, Barwick C, Letofsky K, Lancee W. Help for families of suicide: survivors support program. *Can J Psychiatry*. 1982 27(6):444-9.
643. McDaid C, Trowman R, Golder S, Hawton K, Sowden A. Interventions for people bereaved through suicide: systematic review. *Br J Psychiatry*. 2008;193(6):438-43.
644. Farberow NL. The Los Angeles Survivors-After-Suicide program. An evaluation. *Crisis*. 1992;13(1):23-34.
645. de Groot M, de Keijser J, Neeleman J, Kerkhof A, Nolen W, Burger H. Cognitive behaviour therapy to prevent complicated grief among relatives and spouses bereaved by suicide: cluster randomised controlled trial. *BMJ*. 2007;334:994.
646. Cerel J, Campbell FR. Suicide survivors seeking mental health services: a preliminary examination of the role of an active postvention model. *Suicide Life Threat Behav*. 2008;38(1):30-4.
647. de Groot M, Neeleman J, van der Meer K, Burger H. The effectiveness of family-based cognitive-behaviour grief therapy to prevent complicated grief in relatives of suicide victims: the mediating role of suicide ideation. *Suicide Life Threat Behav*. 2010;40(5):425-37.
648. Hazell P, Lewin T. An evaluation of postvention following adolescent suicide. *Suicide Life Threat Behav*. 1993;23(2):101-9.
649. Sandor MK, Walker LO, Sands D. Competence-building in adolescents, Part II: Community intervention for survivors of peer suicide. *Issues Compr Pediatr Nurs*. 1994 17(4):197-209.
650. Callahan J. Negative effects of a school suicide postvention program-an example case. *Crisis*. 1996;17(3):108-15.
651. Poijula S, Wahlberg KE, Dyregrov A. Adolescent suicide and suicide contagion in three secondary schools. *Int J Emerg Ment Health*. 2001;3(3):163-8.
652. Grossman J, Hirsch J, Goldenberg D, Libby S, Fendrich M, Mackesy-Amiti ME, et al. Strategies for school-based response to loss: proactive training and postvention consultation. *Crisis*. 1995;16(1):18-26.

653. Mackesy-Amiti ME, Fendrich M, Libby S, Goldenberg D, Grossman J. Assessment of knowledge gains in proactive training for postvention. *Suicide Life Threat Behav.* 1996;26(2):161-74.
654. Kovac SH, Range LM. Writing projects: lessening undergraduates' unique suicidal bereavement. *Suicide Life Threat Behav.* 2000;30(1):50-60.
655. Hacker K, Collins J, Gross-Young L, Almeida S, Burke N. Coping with youth suicide and overdose: one community's efforts to investigate, intervene and prevent suicide contagion. *Crisis.* 2008;29(2):86-95.
656. Seguin M, Vinet-Bonin A, Senecal I. Evaluation of postvention programmes. *Rev Fr Psychiat Psychol Med.* 2004;8:17-24.
657. Barlow CA, Schiff JW, Chugh U, Rawlinson D, Hides E, Leith J. An Evaluation of a Suicide Bereavement Peer Support Program. *Death Studies.* 2010;34(10):915-30.
658. Wurst FM, Kunz I, Skipper G, Wolfersdorf M, Beine KH, Thon N. The therapist's reaction to a patient's suicide: Results of a survey and implications for health care professionals' well-being. *Crisis.* 2011;32(2):99-105.
659. Pallin V. Supporting staff and patients after a suicide. En: Duffy D, Ryan T, eds. *New approaches to preventing suicide A manual for practitioners.* London: Jessica Kingsley Publishers; 2004.
660. Hendin H, Haas AP, Maltzberger JT, Szanto K, Rabinowicz H. Factors Contributing to Therapists' Distress After the Suicide of a Patient. *Am J Psychiatry.* 2004;161:1442-6.
661. Thomyangkoon P, Leenaars A. Impact of death by suicide of patients on Thai psychiatrists. *Suicide Life Threat Behav.* 2008;38(6):728-40.
662. Alexander DA, Klein S, Gray NM, Dewar IG, Eagles JM. Suicide by patients: Questionnaire study of its effect on consultant psychiatrists. *BMJ.* 2000;320(7249):1571-4.
663. Ellis TE, Dickey ITO, Jones EC. Patient suicide in psychiatry residency programs: A national survey of training and postvention practices. *Acad Psychiatry.* 1998;22(3):181-9.
664. Gaffney P, Russell V, Collins K, Bergin A, Halligan P, Carey C, et al. Impact of patient suicide on front-line staff in Ireland. *Death Stud.* 2009;33(7):639-56.
665. Yousaf F, Hawthorne M, Sedgwick P. Impact of patient suicide on psychiatric trainees. *Psychiatr Bull R Coll Psychiatr.* 2002;26(2):53-5.
666. Melton BB, Coverdale JH. What do we teach psychiatric residents about suicide? A national survey of Chief residents. *Acad Psychiatry.* 2009;33(1):47-50.
667. Bartels SJ. The aftermath of suicide on the psychiatric in-patient unit. *Gen Hosp Psychiatry.* 1987;9:189-97.
668. Palao DJ. Programa de intervención multinivel para la prevención de la depresión y el suicidio (Corporació Sanitària i Universitària Parc Taulí de Sabadell (Barcelona). Comunicación personal.
669. Informe anual del Sistema Nacional de Salud 2007. Castilla y León. Madrid: Ministerio de Sanidad y Consumo; 2007.
670. Código penal, Ley Orgánica 10/1995. Boletín Oficial del Estado, N° 281, (24 November, 1995).
671. Fuertes Rocañín JC, Cabrera Forneiro J. La Salud Mental en los Tribunales. Madrid: Arán Ediciones; 2007.
672. Ley básica reguladora de la autonomía del paciente y de derechos y obligaciones en materia de información y documentación clínica, Ley 41/2002. Boletín Oficial del Estado, N° 274, (15 November, 2002).

673. Ley de enjuiciamiento civil, Ley 1/2000. Boletín Oficial del Estado, N° 7, (8 January, 2000).
674. Díaz-Ambrona Bardají MD, Serrano Gil A, Fuertes Rocañin JC, Hernández Díaz-Ambrona P. Introducción a la medicina legal. Barcelona: Díaz de Santos; 2007.
675. Ros Montalbán S. La conducta suicida. Madrid: Arán; 1997.
676. Cuestión de inconstitucionalidad 4542-2001. Planteada por el Juzgado de Primera Instancia núm. 8 de A Coruña en relación con los párrafos primero y segundo del artículo 763.1 de la Ley 1/2000, de 7 de enero, de enjuiciamiento civil. Derecho a la libertad personal y reserva de ley orgánica: inconstitucionalidad de la previsión, en ley ordinaria, del internamiento forzoso en establecimiento de salud mental de quienes padezcan trastornos psíquicos. Pleno del Tribunal Constitucional, Sentencia 132/2010, de 2 de diciembre de 2010. Boletín Oficial del Estado, N° 4, (1 January, 2011).
677. Carrasco Gómez JJ. Responsabilidad médica y psiquiatría. Madrid: Colex; 1990.
678. Bobes García J, Sáiz Martínez PA, Bascarán Fernández T, Bousoño García M. Comportamientos suicidas. Prevención y tratamiento. Barcelona: Ars Medica; 2004.
679. Ley general de sanidad, Ley 14/1986. Boletín Oficial del Estado, N° 102, (29 April, 1986).
680. Constitución Española. Boletín Oficial del Estado, N° 311, (29 December, 1978).
681. Ley de regulación del tratamiento automatizado de los datos de carácter personal, Ley Orgánica 5/1992. Boletín Oficial del Estado, N° 262, (31 October, 1992).
682. Consejo General de Colegios Médicos. Código de ética y deontología médica. Madrid: Organización Médica Colegial; 1999. Available at: <http://www.cgcom.org/deontologia>.
683. Enjuiciamiento Criminal. Madrid: Boletín Oficial del Estado; 2010

