# Clinical Practice Guideline on Major Depression in Childhood and Adolescence

CLINICAL PRACTICE GUIDELINES IN THE SNS MINISTRY OF HEALTH AND SOCIAL POLICY









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"This CPG is an aid for making decisions about healthcare. It is not mandatory, and it is not a substitute for the clinical judgement of healthcare professionals".

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# Presentation

One of the priorities of the Ministry of Health and Social Policy is to decrease unjustified clinical variability, thereby helping to make the most appropriate decisions based on the best existing knowledge.

The healthcare practice is increasingly more complex due to a multitude of factors, one of the most relevant of which is undoubtedly the exponential increase in scientific information. For clinical decisions to be appropriate, effective, efficient, and safe, professionals need to constantly update their knowledge, which requires that they dedicate considerable effort.

In 2003, the Interterritorial Council of the National Health System (SNS) created the GuíaSalud project. Its ultimate aim is to improve clinical decision-making based on scientific evidence through training activities and by setting up a record of Clinical Practice Guidelines (CPG) in the SNS. Since then, the GuíaSalud project has evaluated dozens of CPGs according to explicit criteria determined by its scientific committee, it has registered those guidelines, and it has published them through the Internet.

At the beginning of 2006, the Directorate General of the Quality Agency of the National Health System prepared the Quality Plan for the National Health System, which is deployed according to twelve strategies. The purpose of this Plan is to increase the cohesion of the SNS and to help guarantee the highest quality healthcare for everyone, regardless of their place of residence.

As a part of the Plan, the preparation of several CPGs was commissioned to various expert agencies and groups on prevalent pathologies related to healthcare strategies. This guide on major depression in childhood and adolescence is the result of that commissioning.

Moreover, the definition of a common methodology for drafting CPGs for the SNS was commissioned, and it has been drafted as the result of a collective effort of consensus and coordination among expert groups on CPGs in our country.

In 2007, the GuíaSalud project was renovated, and the Library of Clinical Practice Guidelines was created. This project delves deeper into drafting CPGs, and it includes other services and products of Evidence-based Medicine. It likewise endeavours to favour the implementation and evaluation of the use of CPGs in the National Health System.

Even though major depression is relatively frequent and represents a health problem due to the disability and the alteration of the quality of life that it causes, it is frequently underdiagnosed in childhood and adolescence. Moreover, the variability in managing it is well known, with different attitudes regarding therapy, referral, and follow-up.

This clinical practice guideline is the result of the work of a group of professionals belonging to the various disciplines that are comprised in caring for patients with depression. The members of the editing group have dedicated many hours to drafting the recommendations, which will undoubtedly help to improve the healthcare that is provided in both primary care and specialised care. The review process of the guideline has included the cooperation of scientific societies and patient associations that are directly involved with this health problem.

This CPG attempts to provide healthcare professionals with a useful instrument that provides answers to the most basic questions in the form of recommendations, which have been prepared systematically and according to the best available evidence. We hope that all of this will result in greater quality healthcare for these patients and their families, which is the objective that motivates us.

#### Pablo Rivero Corte

Director General of the Quality Agency of the SNS

# Authors and collaborations

Guideline Development Group for the CPG on the Management of Major Depression in Childhood and Adolescence.

María Álvarez Ariza. Doctor of Medicine. Specialist Physician in Psychiatry. Pontevedra Hospital Complex.

**Gerardo Atienza Merino.** Doctor of Medicine. Technician of the Axencia de Avaliación de Tecnoloxías Sanitarias de Galicia. Consellería de Sanidade.

Elena de las Heras Liñero. Doctor of Medicine. Specialist Physician in Psychiatry. University Hospital Complex of Vigo (Pontevedra).

> Rafael Fernández Martínez. Doctor of Psychology. Clinical Psychologist. Pontevedra Hospital Complex.

**Ernesto Ferrer Gómez del Valle.** Doctor of Medicine. Specialist Physician in Psychiatry. Ourense Hospital Complex.

Ana Goicoechea Castaño. Physician. Specialist Physician in Paediatrics. San Roque Health Care Centre, Vilagarcía (Pontevedra).

José Luis Iglesias Diz. Doctor of Medicine. Specialist Physician in Paediatrics. University Hospital Complex of Santiago (A Coruña).

> Arturo Louro González. Physician. Specialist Physician in Family and Community Medicine. Primary Health Care Service of Cambre (A Coruña).

Belén Martínez Alonso. Physician. Specialist Physician in Psychiatry. Child-Adolescent USM. University Hospital Complex of Vigo (Pontevedra).

José Mazaira Castro. Physician. Specialist Physician in Psychiatry. Child-Adolescent USM. University Hospital Complex of Santiago (A Coruña).

> Aurea Paz Baña. University Graduate of Nursing. Conxo Psychiatric Hospital. University Hospital Complex of Santiago (A Coruña).

**Lucinda Paz Valiñas.** Biologist. Technician of the Axencia de Avaliación de Tecnoloxías Sanitarias de Galicia. Consellería de Sanidade.

María Isabel Roca Valcárcel. Psychologist. Clinical Psychologist. USM. Child-Adolescent. Xeral-Calde Hospital Complex of Lugo.

**Yolanda Triñanes Pego.** Psychologist. Technician of the Axencia de Avaliación de Tecnoloxías Sanitarias de Galicia. Consellería de Sanidade.

### Coordination

María Álvarez Ariza. Doctor of Medicine. Specialist Physician in Psychiatry. Pontevedra Hospital Complex.

**Gerardo Atienza Merino.** Doctor of Medicine. Technician of the Axencia de Avaliación de Tecnoloxías Sanitarias de Galicia. Consellería de Sanidade.

#### Collaboration

**Beatriz Casal Acción.** Documentalist. Technician of the Axencia de Avaliación de Tecnoloxías Sanitarias de Galicia. Consellería de Sanidade.

María Ríos Neira. Documentalist. Technician of the Axencia de Avaliación de Tecnoloxías Sanitarias de Galicia. Consellería de Sanidade.

### Expert collaboration

**Emilio Casariego Vales.** Specialist Physician in Internal Medicine. Xeral Calde Hospital Complex of Lugo. Servizo Galego de Saúde.

Marta Medrano Varela. Specialist Physician in Forensic Medicine. Specialist Physician in Legal and Forensic Medicine. Head of the Clinical Section. Institute of Legal Medicine of Galicia.

José Luis Rodríguez-Arias Palomo. Psychologist. Clinical Psychologist. Virxe da Xunqueira Hospital Public Foundation, Cee (A Coruña).

Víctor M. Torrado Oubiña. Psychologist. Clinical Psychologist. University Hospital Complex of A Coruña.

### **Revision Externa**

Antonio Agüero Juan. Psychiatrist. Teaching Hospital, Valencia.

M.<sup>a</sup> Jesús Alonso Antoraz. Psychiatrist. Ex Head of the Child-Adolescent Mental Health Unit, Vigo (currently retired).

**Enric Aragonés Benaiges.** Primary Health Care Physician. Primary Health Care Centre of Constantí, Tarragona. Institut Catalá de la Salut.

M.<sup>a</sup> Victoria del Barrio Gándara. Lecturer. Department of Personality, Evaluation and Psychological Treatment. School of Psychology. UNED, Madrid.

Amparo Belloch Fuster. Clinical Psychologist. Full Professor of Psychopathology of the University of Valencia.

Pedro Benjumea Pino. Psychiatrist. Lecturer of Psychiatry of the University of Seville.

Germán E. Berrios. Professor of the Epistemology of Psychiatry (emeritus). Robinson College. University of Cambridge, United Kingdom.

María del Carmen Bragado Álvarez. Lecturer. Department of Personality, Evaluation and Psychological Treatment. School of Psychology of the Universidad Complutense, Madrid.

Antonio Bulbena Vilarrasa. Director of the Institute of Psychiatric Care of Hospital del Mar, Barcelona.

María Consuelo Carballal Balsa. Nursing Coordinator. Mental Health Programme. Bureau of Mental Health and Drug Addiction. Consellería de Sanidade, Xunta de Galicia.

Juan José Carballo Belloso. Clinical Collaborator. Child and Adolescent Psychiatry Unit. Department of Psychiatry of the Teaching Hospital of Navarra, Pamplona.

Josefina Castro Fornieles. Head of the Child Psychiatry and Psychology Unit. Hospital Clínic Universitari, Barcelona.

> Sergio Cinza Sanjurjo. Coordinating Physician of the "061" service. Malpica de Bergantiños Health Centre, A Coruña.

Josep Cornellá Canals. Physician. Fundació Autisme Mas Casadevall. Department of Psychiatry, Girona.

María Dolores Domínguez Santos. Lecturer of Psychiatry. Childhood and Adolescence Mental Health Unit. University Hospital Complex of Santiago, A Coruña.

> Inmaculada Escamilla Canales. Child and Adolescent Psychiatry. Department of Psychiatry and Medical Psychology of the Teaching Hospital of Navarra, Madrid.

Aranzazu Fernández Rivas. Child-Adolescent Section Head. Child-Adolescent Psychiatry Unit. Basurto Hospital, Bilbao.

Montserrat García Gónzalez. Psychologist. Department of Psychology of the Alba Association, Pontevedra.

María Paz García Vera. Lecturer and Director of the Psychology Teaching Hospital of the Universidad Complutense, Madrid.

Elena Garralda Hualde. Full Professor and Consultant of Child-Adolescent Psychiatry. Imperial College of London, United Kingdom.

> María León-Sanromá. Primary Health Care Physician. ABS La Gavarra. Institut Catalá de la Salut. Department of the mental health working group of the Spanish Society of Family and Community Medicine. Cornellá de Llobregat, Barcelona.

> > Germán López Cortacáns. Mental Health Nurse. Salou Health Centre, Tarragona.

M<sup>a</sup> Jesús Mardomingo Sanz. Head of the Child-Adolescent Psychiatry Service. Hospital Gregorio Marañón, Madrid.

Mara Parellada Redondo. Adolescent Unit. Gregorio Marañón General Teaching Hospital, Madrid. Ana Pascual Aranda. Psychiatrist Physician. Child and Adolescent Unit of the Mental Health Service of Villa de Vallecas, Madrid.

> **Pedro Javier Rodríguez Hernández.** Specialist Physician of the Psychiatry Service. Diego Matías Guigou y Costa Child-Adolescent Day Hospital. Psychiatry Service of the Nuestra Señora de Candelaria Teaching Hospital, Tenerife.

Juan Ruiz-Canela Cáceres. Primary Health Care Paediatrician. Virgen de África Primary Health Care Centre, Seville. Servicio Andaluz de Salud.

> **Patricio Ruiz Lázaro.** Primary Health Care Paediatrician. Physician Coordinator. "Manuel Merino" Primary Health Care Centre, Alcalá de Henares (Madrid).

> María Isabel Salvador Sánchez. Clinical Psychologist. Child and Adolescent Mental Health Unit, Balearic Islands.

Manuel Sampedro Campos. Paediatrician. Novoa Santos Health Centre, Ourense.

Carmen Senra Rivera. Lecturer. Department of Clinical Psychology and Psychobiology. University of Santiago de Compostela.

César Soutullo Esperón. Head of the Psychiatry Service. Teaching Hospital of Navarra.

Josep Toro Trallero. Professor Emeritus of Psychiatry of the School of Medicine of the University of Barcelona.

Fernando Lino Vázquez González. Lecturer. Department of Clinical Psychology and Psychobiology. University of Santiago de Compostela.

### **Collaborating Societies**

Members of these societies or associations have participated in the external review of the CPG:

Spanish Association of Neuropsychiatry (AEN).

Spanish Association of Paediatrics (AEP).

Spanish Association of Primary Care Paediatrics (AEPap).

Spanish Association of Clinical Psychology and Psychopathology (AEPCP).

Spanish Association of Child and Adolescent Psychiatry (AEPNYA).

National Association of Mental Health Nursing (ANESM).

Spanish Confederation of Groups of Relatives and People with a Mental Illness (FEAFES).

Federation of Associations of Community and Primary Health Care Nursing (FAECAP).

Andrea Foundation.

Spanish Society of Family and Community Medicine (SEMFYC).

Spanish Society of Adolescent Medicine (SEMA). Spanish Society of Primary Health Care Physicians (SEMERGEN).

> Spanish Society of Out-of-Hospital Paediatrics and Primary Health Care (SEPEAP).

Spanish Society of Clinical Psychology and Health (SEPCyS). Spanish Society of Biological Psychiatry (SEPB).

### Declaration of interests

All the members of the task force, as well as the people who have participated in the expert collaboration and in the external review, have made the declarations of interests that are presented in Appendix 5.

# Questions to be answered

# Risk factors and the assessment of major depression in children and adolescents

- What are the risk factors of depression in children and adolescents?
- What are the scales used most often to assess depression in children and adolescents?
- Does screening of depression in children and adolescents improve the long-term results?

#### Treatment of major depression

- What is the efficacy of the different types of psychotherapy at treating major depression in children and adolescents?
- Is there any type of psychotherapy that is more effective than another according to the degree of severity of major depression?
- What is the efficacy of the different types of antidepressant drugs at treating major depression in children and adolescents?
- Is there any antidepressant drug considered to be the drug of choice?
- How safe is pharmacological treatment and what is its relationship with suicidal behaviour?

#### Combined treatment and strategies for resistant depression

- What is the role of combined treatment in major depression in children and adolescents?
- What strategies can be followed for resistant depression?
- What role does electroconvulsive therapy play in the treatment of major depression in children and adolescents?

#### Other therapeutic interventions

- Is physical exercise effective at reducing symptoms in children and adolescents with major depression?
- Are self-help techniques and other alternative treatments effective at treating depression in children and adolescents?
- Are family, social, and environmental interventions effective?

### Suicide in children and adolescents

- What are the risk factors of suicide in children and adolescents?
- What are the fundamental aspects of treating suicidal ideation and behaviour?

• What interventions are effective at preventing suicidal behaviour in children and adolescents with major depression?

## Quality indicators

• What indicators allow monitoring quality in the management of major depression in children and adolescents?

# Key to evidence statements and grades of recommendations from SIGN

Levels of evidence	
1++	High quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias.
1+	Well-conducted meta-analyses, systematic reviews, or RCTs with a low risk of bias.
1-	Meta-analyses, systematic reviews, or RCTs with a 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-	Case control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal.
3	Non-analytic studies, e.g. case reports, case series.
4	Expert opinion.

Grades of recommendations	
A	At least one meta-analysis, systematic review, or RCT rated as 1++, and directly applicable to the target population; or A body of evidence consisting principally of studies rated as 1+, directly applicable to the target population, and demonstrating overall consistency of results.
В	A body of evidence including studies rated as 2++, directly applicable to the target population, and demonstrating overall consistency of results; or Extrapolated evidence from studies rated as 1++ or 1+.
С	A body of evidence including studies rated as 2+, directly applicable to the target population and demonstrating overall consistency of results; or Extrapolated evidence from studies rated as 2++.
D	Evidence level 3 or 4; or Extrapolated evidence from studies rated as 2+.

Studies classified as 1- and 2- should not be used in the process of developing recommendations due to their high possibility of bias.

Good p	Good practice points	
✓ <sup>1</sup>	Recommended best practice based on the clinical experience of the guideline development group.	

Source: Scottish Intercollegiate Guidelines Network. SIGN 50: A guideline developers' handbook (Section 6: Forming guideline recommendations), SIGN publication no. 50, 2001.

Generally, these cases are related to some aspect of the treatment, considered to be a good clinical practice that nobody would normally question. These aspects are considered good clinical practice points. These messages are not an alternative to evidence-based recommendations, but must only be considered when there is no other way.

<sup>1.</sup> Sometimes the guideline development group becomes aware that there are some significant practical aspects they wish to emphasise and for which there is probably no supporting scientific evidence available.

# Summary of recommendations

#### Risk factors and the assessment of major depression

D <sup>gpc</sup>	Family physicians and primary care paediatricians should have suitable training that allows them to assess those children and adolescents at risk of depression and to record the risk profile in their clinical history.
D <sup>gpc</sup>	When faced with a child who has suffered from a stressful life event, in the absence of other risk factors, primary care professionals should perform follow-up and foment the normalisation of daily life.
D <sup>gpc</sup>	All mental health assessments of a child or adolescent should routinely include questions about depressive symptoms.
1	Major depression should be diagnosed through a clinical interview. Questionnaires alone do not allow making an individual diagnosis.
1	It is not advisable to screen for depression in children or adolescents among the general population due to the non- existence of studies that assess the effectiveness of screening.
1	There should be an active search for depressive symptomatology in those children and adolescents who present risk factors, and children and adolescents should be asked separately from their parents about current symptoms and problems.
1	In children over 8 years of age and in adolescents, one of the most-used and validated questionnaires in Spanish is the CDI. In adolescents, the use of self-applied questionnaires that are validated in our territory is recommended, which allow the early detection of depressive symptoms. Nevertheless, it must not be forgotten that a clinical interview must be performed for a complete diagnosis.

#### **Treatment of Major Depression**

General recommendations		
1	The treatment of depression in childhood and in adolescence must be comprehensive, and it must cover those psychotherapeutic, pharmacological, and/or psychosocial interventions that could improve well-being and functional capacity.	
1	The management of depression should always include standard clinical care, which is understood as psychoeducation, individual and family support, problem-solving techniques, coordination with other professionals, attention to other comorbidities, and regular monitoring of the mental state.	
1	Regardless of the therapy used, a solid therapeutic alliance must always be established, and specific techniques must be used for childhood and adolescence, in addition to the fact that parents must be included as a fundamental part of the therapeutic process.	
Mild m	ajor depression	
D <sup>gpc</sup>	The family physician or paediatrician could allow a two-week period to elapse for observation and follow-up on evolution in children and adolescents with mild major depression and in the absence of risk factors, self-injurious ideas/behaviours, and comorbidities.	
D	During this period, the primary care professional should provide active support for the child or adolescent and their family, thereby facilitating guidelines for healthy life habits, psychoeducational guidelines, or guidelines for handling situations.	
1	If the depressive symptoms persist after this observation period, it is advisable to refer the patient to specialised care on child and adolescent mental health.	
1	Those patients with depression who present self-injurious ideation or behaviours, risk factors, or serious comorbidities such as substance abuse or another mental pathology should be initially referred to child and adolescent mental healthcare, even though the degree of the depression may be mild.	
В	In specialised care on child and adolescent mental health, the treatment of choice for mild major depression will be psychological therapy for a period of 8 to 12 weeks (weekly sessions).	
В	The initially recommended modes of psychotherapy for mild major depression are cognitive behavioural therapy, family therapy, or interpersonal therapy.	

D <sup>gpc</sup>	During this period of psychological therapy, there must be regular follow-up on the clinical evolution of the child or adolescent.
В	In general, the use of antidepressant drugs is not recommended for initially treating children and adolescents with mild depression.
Moder	ate and severe major depression
В	All children and adolescents with moderate/severe major depression should be initially referred to child and adolescent mental healthcare.
В	Whenever possible, adolescents with moderate depression will be initially treated using psychotherapy for at least 8 to 12 weeks (minimum of 1 session per week). Cognitive behavioural therapy and interpersonal or family therapy are psychotherapeutic modes that have demonstrated the best results.
В	For severe depression in adolescents, it is recommended that psychotherapy be used initially (cognitive behavioural therapy) together with pharmacological treatment (fluoxetine). In individualised cases, pharmacological treatment alone could be used, always associated with standard clinical care.
В	Combined treatment using fluoxetine and cognitive behavioural therapy is especially recommended in cases in which there is a personal or family history of suicidal ideation and/or behaviour.
1	In children under 12 years of age, cognitive behavioural therapy or family therapy is initially recommended. If it is impossible to apply or if the evolution is poor, adding pharmacological treatment (fluoxetine) is recommended.
1	Before initiating pharmacological treatment using antidepressants, it is advisable to inform about the reasons for the prescription, the expected benefits, the possible delay of any therapeutic effect, the secondary effects, and the duration of the treatment.
A	Even though an increase in suicides committed by children and adolescents has not been demonstrated, monitoring the possible appearance of adverse effects is recommended, especially suicidal ideation or behaviour, above all during the first four weeks of pharmacological treatment.
A	The only recommendable antidepressant drugs for treating moderate or severe depression in children or adolescents are SSRIs. Fluoxetine is the drug with the most trials that support its use in these age groups.
1	According to the patient's clinical profile (clinical characteristics of depression, family history, and history of prior response in family members), another SSRI could be chosen (sertraline, citalopram, or escitalopram).
D	After remission of the depressive symptoms, it is recommended that pharmacological treatment with an SSRI be continued for at least 6 weeks (recommendable between 6 and 12 months) as from remission of the depressive symptoms, with the same dose at which remission was achieved.
D	It is advisable that the use of an antidepressant drug be suspended gradually. If symptoms reappear, pharmacological treatment should be re-initiated.
В	Current evidence does not allow recommending the use of tricyclic antidepressants, paroxetine, venlafaxine, or mirtazapine for treating major depression in children and adolescents.
	Hospitalisation of children or adolescents with major depression should be considered:
	- if there is a high risk of suicide.
1	<ul> <li>if the depression is severe and is accompanied by psychotic symptoms.</li> </ul>
	<ul> <li>when there is association with severe comorbidities.</li> </ul>
	– when there are reasons that make it difficult to ensure suitable outpatient monitoring and control.

#### Combined treatment and strategies for resistant depression

With a patient who does not improve after initiating treatment, it is advisable to review the diagnosis and verify compliance with the therapy. Whenever treatment is pharmacological, it must be confirmed that the drug is being taken at the appropriate time and in the appropriate dose.
When a patient does not improve after psychological treatment, it must be verified that the suitable time and number of sessions have been given.
For patients with moderate major depression who do not respond to specific psychological therapy, it is advisable to combine cognitive behavioural therapy with pharmacological treatment from the SSRI group.
If there is a response to treatment, it should be continued for at least six months (recommendable between 6 and 12 months) after remission of the depressive symptoms.
For adolescents with moderate-severe depression who do not respond to initial treatment with an SSRI, it is advisable to combine cognitive behavioural therapy with a change to another antidepressant of the SSRI group.
Electroconvulsive therapy will be indicated for adolescents who have severe and persistent major depression and who have severe symptoms that place their lives in danger or who do not respond to other treatments.
The use of electroconvulsive therapy in adolescents should be exceptional and be given by an experienced professional (child and adolescent psychiatrist) after a physical and psychiatric assessment and in a hospital environment.

#### Other therapeutic interventions

1	It is recommendable that all health professionals involved in handling depression in children and adolescents have suitable training that allows them to advise about all forms of self-help that are potentially useful for patients, parents, or carers.
1	The recommendation of self-help interventions should form a part of a comprehensive treatment strategy.
D <sup>gpc</sup>	It is recommendable to offer information about the advantages of regular physical exercise for children or youths with depression, as long as the severity does not hinder this activity.
1	It is recommendable to also provide information about the benefits of balanced nutrition and maintaining a pattern of adequate sleep.
1	When assessing children or adolescents with major depression, the family and social context must be taken into account. The quality of the patient's interpersonal relationships must also be assessed, both the relationships with their family members and with their friends and peers.
1	It is recommendable to always ask a patient and their family members about the consumption of alcohol and other drugs and about the existence of a history of school harassment, abuse, or self-injurious behaviour.

#### Suicide in childhood and adolescence

1	Primary care professionals should have suitable information about the main risk factors of suicidal behaviour and ideation in children and adolescents and about the assessment of their risk profile.
1	In patients with depression and/or a suicide risk profile, questions should always be asked about suicide ideas or plans, and the clinical history must include all aspects related to the method, planning, and intent.
1	After a suicide attempt by a child or adolescent, there must always be an immediate psychiatric or psychosocial assessment, if possible by a professional specialising in these age groups.
1	Guidelines will be given to parents or carers regarding accompaniment and control of direct access to medication by children and adolescents.
D	The clinical history should include the medical severity of the suicide attempt, the method used, the degree of planning of the suicidal behaviour, the motivation or intent of the behaviour, and the presence of the feeling of hopelessness.
D	The information will come from the patients themselves, and it is also recommendable to use multiple sources, if possible, such as parents or carers, teachers and friends.
D	While the various, existing psychometric instruments can help to assess suicide risk (such as the Risk of Suicide Questionnaire, the Beck Hopelessness Scale, or the Beck Depression Inventory), they cannot substitute the clinical interview, given that those instruments alone lack predictive value.

D	Hospitalisation is recommended for all children or adolescents who have attempted suicide and who show several risk factors and limited family and community support.			
D	After a suicide attempt, and if hospitalisation has not been considered, there must be a re-assessment within 7 to 10 days. Subsequently, there must be periodic follow-up by primary care professionals and by child and adolescent mental healthcare professionals.			
D	Suicide prevention in children and adolescents should be considered a priority and should fundamentally establish measures that allow early diagnosis of the suicide risk.			
D	D Measures designed to reach a consensus about suicide coverage by the media and about the content of Internet web page must be established.			

The recommendations adopted from a CPG are indicated by the  $``{\mbox{CPG}"}$  superscript.

# 1. Introduction

In recent years, we have witnessed a considerable increase in the prevalence of depression worldwide and at the same time a decrease in the age at which it starts. Thus, according to the World Health Organisation (WHO), it has become a considerable health problem that affects approximately 120 million people, of whom less than 25% have access to effective treatments. Moreover, one out of every five people will eventually develop a depressive disorder during their lives, a proportion that will increase if there are other factors involved, such as medical illnesses or stressful situations<sup>1</sup>. Therefore, and according to some estimates, by 2020 depression will become the second-leading cause of disability after cardiovascular diseases<sup>2</sup>.

Depressive disorders affect people of any age, economic condition, or educational or cultural level, and they represent a major cost to individuals, the family, the healthcare system, and the community in general. While there are multiple studies on the prevalence, diagnosis, and treatment of depression in adults, there are few on the child and adolescent population. Moreover, the results of these studies are variable, due basically to the diagnostic difficulty at this stage of life, given that clinical manifestations can be less specific than in adult depression, and also due to the differences in the studies with respect to the sample size, the diagnostic criteria used, or the type of interview techniques used.

Due to the particular characteristics of depression in childhood and adolescence, it is important to have primary care professionals and child and adolescent mental healthcare specialists who are trained and who have experience at handling this disorder in this age group. It is also important that they be provided with the necessary resources for diagnosing and treating major depression.

## 1.1. Prevalence

The problem of depression in childhood and adolescence in Spain can initially be approached using the data provided by the National Health Survey (2006), which estimates that 10.4% of boys and 4.8% of girls between 0 and 15 years of age will have mental problems that limit activities of daily life<sup>3</sup>. The prevalence of major depression has been estimated to be 1.8% in children who are 9 years of age, 2.3% in adolescents who are between 13 and 14 years of age, and 3.4% in 18-year olds<sup>4</sup>. Other works also positively correlate depression with age, and they observe percentages of around 5% among the adolescent population<sup>5</sup>.

Finally, an observational study performed on children between 12 and 16 years of age showed a prevalence of depressive manifestations of around 10.3% (mild in 8.4% and severe in 1.8%), although the authors don't specify whether or not the study concerns major depression<sup>6</sup>.

In a study performed in Spain on 404 children, it was found that depressive disorders were the second most frequent diagnosis (after behaviour disorders) in 14.6% of the cases that requested care. This percentage also included the diagnosis of an adjustment disorder, a subtype of depression. If only major depression and dysthymia were included, the prevalence of depressive disorders was 7.4% of the total sample<sup>7</sup>.

Studies performed in the United States have observed a prevalence of 0.3% among pre-school ages of the general population and between 0.5% and 2% in boys and girls between 9 and 11 years of age<sup>9</sup>. Other authors observe a prevalence of depression of 0.4-2.5% in children and 5-8.3% among adolescents<sup>10-12</sup>. Some studies have found that in children treated at outpatient psychiatric centres, the observed depression was  $28\%^{13}$ , which increased to 59% if the children were hospitalised<sup>14</sup>.

*Sex.* In the pre-puberty stages, the prevalence of the major depressive disorder is similar between boys and girls. However, among adolescents the prevalence is greater for females at a ratio of 2:1<sup>15-17</sup>, due possibly to the different way that stress is handled or to the hormonal changes that occur during puberty<sup>18</sup>. Furthermore, a 10-year, longitudinal prospective study on pre-adolescents revealed that the critical moment when the difference between sexes appears is between 15 and 18 years<sup>19</sup> of age (Table 1).

*Socio-economic level*. Several authors do not consider a low socio-economic level to be significantly associated with depression<sup>20,21</sup>. However, others observe that children of a low socio-economic environment are 2 times more at risk of suffering from depression throughout their lives than those children who belong to a high socio-economic environment, independent from other sociodemographic factors or a family history of mental illness<sup>22</sup>.

	Country	Children	Adolescents
Prevalence	USA	0.4-2.5%	5-8.3%
	Spain	1.8%	3.4-5%
Female: male ratio		1:1	2:1

Table 1. Epidemiology of depressive disorders in children and adolescents

Source: own preparation.

*Comorbidities*. Clinical<sup>23-25</sup> and epidemiological<sup>26,27</sup> studies show that 40-70% of children and adolescents with depression have associated mental disorders and that at least 20-50% have been diagnosed with two or more pathologies. The most frequent comorbid diagnoses are dys-thymic disorder and anxiety disorder (both between 30 and 80%), substance abuse (20-30%), and behaviour disorders (10-20%). Except for substance abuse, the major depressive disorder is more likely to occur after the onset of other disorders<sup>10</sup>. The presence of comorbidities has a major impact on the appearance of resistant depression, on the duration of the episode, on suicide attempts or suicidal behaviour, on the functional level of daily life, and on the response to treatment<sup>16,28</sup>.

# 1.2. Repercussions of depression

In children and adolescents, depression has a major impact on their growth and personal development, on their school performance, and on family and interpersonal relationships. There is also evidence that the depressive disorder could possibly continue throughout adolescence and that it could extend during adult life, which is reflected in high indexes of psychiatric consultations and hospitalisations and in labour and relationship problems that originate in the future<sup>29-31</sup>. Moreover, depressive disorders are associated with alcohol and drug abuse, sexual promiscuity, criminal behaviour, and an increase in violence and aggression, as well as food behaviour disorders<sup>32-33</sup>. Therefore, depression in adolescence, in addition to the personal cost, can also involve a serious social cost.

Major depression is also one of the main suicide risk factors in adolescents<sup>34, 35</sup>. Thus, according to estimates of the WHO<sup>36</sup>, suicide is the fourth-leading cause of death in the 15- to 44-year-old age range. Globally, one data of greatest concern is the increase in suicide at young ages, above all in males.

According to the Ministry of Health and Consumer Affairs, in Spain antidepressive pharmacological treatment in 2006 represented a cost that exceeded 600 million euros, and more than 21 million clinical containers were dispensed<sup>37</sup>. Nevertheless, the pharmaceutical expense does not represent a major cost in treating depression in children and adolescents, considering that, according to one study performed in Lleida (Cataluña), between 2002 and 2004 the percentage of patients who received an antidepressant drug was 0.4% for boys and 0.3% for girls between 0 and 14 years of age, while in the age range from 15 to 24, the percentages were 1.9% for men and 4.2% for women<sup>38</sup>.

Due to its prevalence, its role as one of the main suicide risk factors, and its repercussions on the family and social structures, child and adolescent depression is considered to be of great importance, not only for the health system but also for society as a whole

# 2. Scope and objectives

The preparation of this clinical practice guideline (CPG) on the management of major depression in children and adolescents is justified by the magnitude of the problem, both health-wise and socially, and by the demand generated from various areas of the healthcare system that are involved in handling this pathology.

These recommendations have been developed by a multidisciplinary team formed by professionals who are involved in caring for people with these kinds of disorders and who completed a declaration of conflict of interests before taking on the work.

The **main users** targeted by this guideline are all healthcare professionals who are involved in managing depression, as well as the patients themselves and their carers, for whom an appendix with specific information has been drawn up.

The objectives of this clinical practice guideline are the following:

- Improving the healthcare given to children and adolescents with depression, within the scope of primary and specialised care.
- Offering recommendations to healthcare professionals about caring for these patients.
- Developing indicators that can be used to evaluate the practice of professionals.
- Helping patients and their family members to make informed decisions, for whom specific information has been prepared.

The scope of the CPG is the following:

- The groups covered by the guideline are children and adolescents from 5 to 18 years of age who show criteria for mild, moderate, or severe major depression.
- The guideline does not cover other mood alterations.
- The guideline covers the care that children and adolescents with depression can expect to receive from healthcare professionals, both in primary care and in specialised care (child and adolescent mental healthcare).
- Other services are not covered, such as social, educational, or free time.
- The clinical areas that the guideline considers are the following:
  - Diagnostic criteria.
  - Early diagnosis in primary care.
  - Treatment options for depression:

- Pharmacological handling (dose, duration, end, secondary effects, toxicity, and the absence of a response to medication).

- Psychotherapeutic interventions (modes, number of sessions, duration) and other therapies.

- Managing resistant depression and preventing relapses.
- Preventing and handling suicide in adolescents.
- Informed consent from the legal point of view in Spain.

- Areas not covered by the CPG are the following:
  - Those treatments not included in the portfolio of services of the National Health System in Spain.
  - Primary prevention of major depression in children and adolescents.
  - The organisation of healthcare services.
  - Other therapeutic options such as day hospitals or home care.

# 3. Methodology

The **methodology** used is included in the methodology manual developed for the drafting of CPGs in the National Health System<sup>39</sup>.

# 3.1 Participants in the CPG

The different participants in the guideline are listed in the section on authorship and collaborators:

- Coordination: two coordinators, one clinical and another methodological.
- Development group: in addition to the coordinators, it was formed by two technicians belonging to the Axencia de Avaliación de Tecnoloxías Sanitarias de Galicia (avalia-t) and ten healthcare professionals: four psychiatrists (two on adults and two on children), two paediatricians (from primary and specialised care), one family doctor, two clinical psychologists (one on children and one on adults), and one nursing professional of mental health.
- Expert collaborators: they are professionals with knowledge and experience on specific subjects of the guideline.
- Review group: formed by two representatives of various scientific societies and associations directly related to depression in children and adolescents, as well as by professionals with knowledge and experience on the subject of the guideline, proposed by members of the development group.
- Two documentalists from the Axencia de Avaliación de Tecnoloxías Sanitarias de Galicia also cooperated on drafting the CPG.

The roles of the various participants are detailed in Table 2.

Both the coordinators and the members of the development and review groups of the guideline declared any possible **conflicts of interest** (Appendix 5).

The possible training needs of the development group were covered by a **training programme** prepared by avalia-t, which consisted of a series of on-line courses.

	Coordinators	Clinicians	Technicians	Expert collaborators	Outside reviewers	Documentalist
Preparation of the clinical questions	+++	+++	++	++	-	-
Bibliographical search	-	1.8%	++	-	_	+++
Assessment and synthesis of outcomes	++	+	+++	_	_	-
Interpretation of outcomes	+++	+++	++	-	_	-
Recommendations	++	+++	++	++	_	-
Drafting	++	++	+++	+	+	-
External review	-	_	-	-	+++	-

Table 2. Roles of the participants in the CPG

Source: own preparation.

# 3.2. Methodological Protocol

## 3.2.1. Formulation of the clinical questions

The members of the guideline's development group were responsible for formulating the necessary clinical questions for covering the scope of the guideline. The clinical questions were produced generically and in the so-called PICO format: P (patients), I (interventions), C (comparisons), and O (outcomes).

# 3.2.2. Preliminary search for scientific information and CPG selection

An initial bibliographical search of the last ten years was performed to locate all CPGs existing in the main bibliographical databases.

The methodological quality of the prior CPGs was assessed according to the AGREE<sup>40</sup> document, and the one with the highest score was selected and considered to be the benchmark<sup>41</sup>. The assessment of the previous CPGs is set forth in an attached document of methodological material.

The situations that we faced were the following:

- The guideline provided an incomplete response to the question, because it had not been updated. This occurred in all cases, wherefore the bibliography was updated to the current date.
- The guideline provided an incomplete response to the question, because the guideline's response was only partial or did not adapt to our local context, wherefore it was necessary to re-draft the recommendation. In this case, it was developed partially, with an additional search and assessment.
- The guideline did not respond to the question: De novo preparation.

## 3.2.3. Location and selection of studies

In each section of the guideline, the descriptors that were going to be managed, the criteria for inclusion and exclusion, and the search strategies and the extent thereof were established before-hand.

Each systematic, bibliographic search strategy was carried out so that it would allow suitable identification of the studies and allow them to be easily reproduced. It was based on the elements of the reviewed questions and on the study design that was deemed to be the most appropriate.

The attached document of methodological material details the databases and the remainder of the information sources of the search for scientific evidence, which in general were the following:

- Specialised on systematic reviews, such as the *Cochrane Library Plus* and the database of the NHS *Centre for Reviews and Dissemination* (HTA, DARE, and NHSEED).
- Specialised on clinical practice guidelines and other synthesis resources, such as the TRIP database (*Turning Research into Practice*) or GuíaSalud.

• General, such as Medline (Pubmed), EMBASE (Elsevier or Ovid), ISI WEB, IBECS (Bibliographical Index in Health Sciences), and IME (Spanish Medical Index).

The bibliographical search phases were the following:

- Systematic search: it was performed in all the selected databases using previously identified terms. Inclusion criteria were established in order to determine which articles were selected.
- Manual search: of the bibliography included in the selected articles in order to locate additional studies.

After having identified relevant articles for the review, they were selected and assessed to see if they met the established inclusion or exclusion criteria. Moreover, studies were critically assessed using quality checklists. This entire process was performed by the two independent reviewers.

## 3.2.4. Data extraction

A specific form was used, which helped to uniformly extract all relevant information and subsequently include it in the evidence tables. In general, the components of the form for efficacy and effectiveness studies were the following:

- Data extraction date and identification of the reviewer.
- Title, authors, journal, and other details of the study.
- Characteristics of the study.
  - Population characteristics.
  - Design and methodological quality of the study.
  - Intervention data.
- Outcome measures.

## 3.2.5. Synthesis and interpretation of the outcomes

A descriptive synthesis was provided by preparing the evidence tables, in which the main characteristics and the outcomes of each study were summarised. The outcomes were interpreted by discussing the strength of the evidence (quality of the studies included, magnitude and significance of the observed effects, consistency of the effects of the various trials, etc.), the applicability of the outcomes, and other information such as costs, legal and ethical aspects, and the usual practice within the context.

## 3.2.6. Conclusions and recommendations

Recommendations were formulated based on SIGN's "formal assessment" or "considered judgement". They were drafted clearly, thereby avoiding deductions that could give rise to an incorrect interpretation, and they were based solely on the reviewed knowledge. The recommendations were graduated according to the strength of the evidence following the SIGN scale (*Scottish Intercollegiate Guidelines Network*)<sup>42</sup> (see the Table at the start of the guideline). Controversial recommendations or recommendations with an absence of evidence were resolved by informal consensus of the guideline development group. For preparing the quality indicators, the "RAND/UCLA appropriateness method"<sup>43</sup> was used.

### 3.2.7. External review and final recommendations

Expert professionals proposed by the various scientific societies and associations involved in the subject of the guideline participated in reviewing the guideline, in addition to other professionals who were considered relevant.

## 3.2.8. Updating

This CPG will be updated every three years, unless the appearance of relevant scientific knowledge dictates that it should be done before that time, basically regarding those aspects or specific questions where the recommendations may be substantially modified.

# 4. Definition, clinical diagnosis and diagnostic criteria

## 4.1. Definition

Major depression is a mood disorder consisting of a set of symptoms, which include a predominance of the affective type (pathological sadness, hopelessness, apathy, anhedonia, irritability, subjective feeling of distress), and there can also be cognitive, volitional, and physical symptoms. We could therefore refer to an overall impairment of the personal functioning, with special emphasis on the affective sphere<sup>44</sup>. Many cases of depression can be clearly seen in clinical practice, although it does not usually appear alone as a single set of symptoms, but rather it is more commonly associated with other psychopathological conditions. For example, there is high association between the depressive disorder and anxiety, with diverse symptomatic combinations in its manifestations.

# 4.2. Clinical diagnosis of major depression

The diagnosis must be made in a clinical interview and must not be derived solely from questionnaires. Specific techniques must be used, both verbal and non-verbal, due to the existence of both cognitive and verbal limitations in this age group. Thus, it can be difficult to recognise some symptoms in the youngest children, who also may have difficulty communicating their ideas and thoughts, which could prevent a correct diagnosis. To complete the psychopathological assessment, it is essential to have information from parents and from the school environment.

In general, depression in children is polymorphic, and it can be masked with different disorders that appear in certain psychopathological sets of symptoms. In these stages, irritability constitutes a characteristic symptom of depression. Symptomatic manifestations are marked by the age of the child and can be grouped according to the child's development<sup>45-47</sup> (Table 3).

Depressive disorders among adolescents often follow a chronic course, with ups and downs, and there is a two-to-four times higher risk that the depression will persist in adult ages<sup>41,49</sup>. Over 70% of children and adolescents with depressive disorders have not been diagnosed correctly or don't receive adequate treatment. There could be several reasons:

- Clinical manifestations of depression in children that are different than in adults, or atypical presentations.
- Greater difficulty of children and adolescents at identifying how depression happens to them.
- The non-belief by parents or family that depression exists at these ages, not wanting to acknowledge it due to the stigma that it causes, or believing that it could be due to a failure as educators, even though it's not true.
- Lack of education or adequate training for health professionals on assessing children and adolescents with mental problems.
- The non-existence of specific classification criteria for childhood and adolescence.

#### Table 3. Main accompanying clinical symptoms in child and adolescent depression

Under 7 years of age	The symptom that appears most often is anxiety. They show irritability, frequent tantrums, unexplained crying, somatic complaints (headaches, abdominal pains), loss of interest in their usual games, excessive tiredness, increased motor activity, and complete apathy. They can also exhibit a failure to reach the weight for their chronological age, psychomotor retardation, or difficulty with emotional development. In small children, a major depressive disorder is frequently associated with anxiety disorders, school phobias, and sphincter control disorders (encopresis and enuresis).
Children from age 7 to the age of puberty	<ul> <li>Symptoms appear basically in three areas:</li> <li>a) affective and behavioural area: irritability, aggression, agitation or psychomotor inhibition, asthenia, apathy, sadness, and frequent sensations of boredom, guilt, and occasional recurring ideas of death.</li> <li>b) cognitive and school activity area: low self-esteem, lack of concentration, decrease in school performance, school phobia, and behaviour disorders at school and in relations with their peers.</li> <li>c) somatic area: headaches, abdominal pain, sphincter control disorders, sleep disorder (insomnia or hypersomnia), not reaching the weight for their chronological age, and decrease or increase in appetite.</li> </ul>
Adolescents	The symptoms are similar to those in the puberty age, and more negative and anti-social behaviours appear, including drug and substance abuse, irritability, restlessness, bad mood, aggressiveness, stealing, the desire or attempts to run away, feelings of not being accepted, lack of cooperation with the family, isolation, carelessness with personal hygiene and self-care, hypersensitivity with social withdrawal, sadness, anhedonia, and typical cognitions (self-blame, deteriorated self-image, and decrease in self-esteem). They can occasionally have thoughts about suicide. The depressive disorder frequently appears associated with conduct disorders, attention deficit disorders, anxiety disorders, disorders due to substance abuse, and food behaviour disorders.

Source: own preparation and adaptation of several sources<sup>45-47</sup>

Underdiagnosis and undertreatment are the major problems in children under 7 years of age, in part due to the limited capacity to communicate emotions and negative thoughts using language and due to the consequent tendency of somatisation. Thus, children with depression often have vague complaints or ailments, headaches, or abdominal pain. Table 3 includes the main symptoms according to age.

# 4.3. Diagnostic criteria

The diagnostic criteria of depression used the most, both clinically and in research studies, are the International Classification of Diseases (*Mental and Behavioural Disorders*, ICD-10)<sup>50</sup> and the classification of the *American Psychiatric Association* (DSM-IV-TR)<sup>51</sup>. This clinical practice guideline assumes the classification and definition of depression included in the latest revision of the ICD (Tables 4 and 5), with codes F32 (depressive episodes) and F33 (recurrent depressive disorder), and in the DSM-IV-TR (Table 6), with codes 296.2X (depressive disorder) and 296.3X (depressive disorder, recurrent). Both in the ICD-10 and in the DSM-IV-TR, the severity of an episode is based on the number, type, and intensity of the symptoms and on the degree of functional deterioration (the severity criteria of the ICD-10 and of the DSM-IV-TR are included in Appendix 1).

The ICD-10 uses a list of 10 depressive symptoms (Table 4) and divides the depression table into mild, moderate, or severe (with or without psychotic symptoms). In any of these cases, at

least two of the three symptoms considered to be typical of depression must always be present: depressive mood, loss of interest and of the ability to enjoy, and increase in fatigability, when the duration of the episode is at least two weeks. There is a multi-axial classification of mental and behavioural disorders for children and adolescents based on the ICD-10<sup>52</sup>. This classification is organised along six axes: the first five are categories that appear in the ICD-10, although they are structured differently and occasionally are described in more detail. The sixth axis assesses the disability overall, and it is not included in the ICD-10. However, it has been included in this classification because assessment of the disability has been recognised by the WHO as fundamental.

#### Table 4. General diagnostic criteria of a depressive episode according to ICD-10

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B. The episode cannot be attributed to the abuse of psychoactive substances or to an organic mental disorder.

C. Somatic Syndrome: it is commonly considered that "somatic" symptoms have special clinical significance, and in other classifications they are called melancholic or endogenomorphic

- Marked loss of interest or pleasure in activities that were normally pleasurable
- Absence of emotional reactions to events that normally produce a response
- Waking in the morning 2 hours or more before the usual time
- Depression worse in the morning
- Evidence of psychomotor retardation or agitation
- Marked loss of appetite
- Weight loss of at least 5% in the last month
- Notable decrease of libido

Source: Adapted from WHO. Tenth Revision of the International Classification of Diseases. ICD-10. Mental and behavioural disorders. Madrid: Meditor 1992.

Table 5 provides specific comments for children and adolescents regarding the severity criteria of a depressive episode according to the classification of the ICD-10 and with information taken from the bibliography<sup>53-56</sup>.

The DSM-IV-TR (Table 6) uses a list of 9 depressive symptoms. It also requires that the episode last at least two weeks, and it divides the set of symptoms of major depression into mild, moderate, or severe, with specific codes for partial/full remission or unspecified remission (see Appendix 1). A diagnosis is established when at least five of the symptoms are present, and one of them must be a depressive mood or the loss of interest or pleasure.

# **Table 5.** Severity criteria of a depressive episode according to the ICD-10. Symptomatic presentation according to age

B. Presence of at least two of the following symptoms:	
Adults	Children and adolescents
Clearly abnormal depressive mood for the subject, present during most of the day and almost every day, which is altered very little by environmental circumstances and which persists for at least two weeks.	The mood can be depressed or irritable. Small children or children with immature linguistic or cognitive development may not be capable of describing their mood and may have vague physical complaints, a sad facial expression, or poor visual communication. The irritable state can be shown as a "acting out", rash or reckless behaviour, or angry or hostile attitudes or actions. In older adolescents, the mood disorder can be similar to that of adults.
Marked loss of interest or of the ability to enjoy activities that were previously pleasurable.	The loss of interest can be in playing or in school activities.
Lack of vitality or increased fatigability.	Not playing with companions, rejection of school, or frequent absences from the same can be symptoms of fatigue.
C. One or more symptoms from the list must be present so	that the sum total is at least four:
Loss of confidence and self-esteem and feelings of inferiority.	Similar to adults.
Disproportionate self-blame and feelings of excessive guilt or inadequacy.	Children can present self-devaluation. Excessive or inappropriate guilt is not usually present.
Recurrent thoughts of death or suicide or any suicidal behaviour.	Non-verbal clues of suicidal behaviour, including repeated risk behaviour, occasionally in the form of self-injurious play and "gestures" (scratches, cuts, burns, etc.).
Complaints about or a decrease of the ability to concentrate and think, accompanied by a lack of decision and vacillation.	Problems with attention and concentration can appear as behavioural problems or poor scholastic performance.
Changes of psychomotor activity, with agitation or inhibition.	Together with a change in mood, hyperactive behaviour can be observed.
Sleep alterations of any kind.	Similar to adults.
Changes of appetite (decrease or increase), with the corresponding weight change.	Children can cease to gain weight more than lose it.
D. The somatic syndrome may or may not be present*.	Physical symptoms, such as somatic complaints, are particularl frequent in children.

Mild depressive episode: Two or three of the symptoms of criteria B are present. A person with a mild episode is probably capable of continuing with the majority of their activities.

Moderate depressive episode: At least two of the symptoms of criteria B are present, in addition to symptoms of criteria C until there is a minimum total of 6 symptoms. A person with a moderate episode will probably have difficulties continuing with their ordinary activities.

Severe depressive episode: There must be 3 symptoms of criteria B, in addition to symptoms of criteria C until there is a minimum of 8 symptoms. People with this type of depression present marked and distressing symptoms, mainly the loss of self-esteem and feelings of guilt or worthlessness. Suicidal thoughts and actions are common, and a number of somatic symptoms are present. Psychotic symptoms can appear, such as hallucinations, delusions, psychomotor retardation, or severe stupor. In this case, it is called a severe depressive episode with psychotic symptoms. Psychotic phenomena such as hallucinations or delusions may or may not be mood-congruent.

Source: ICD-10 and information taken from the bibliography<sup>53-56</sup>.

\* Somatic syndrome: see Table 4.

#### Table 6. Major Depressive Disorder Diagnostic Criteria according to DSM-IV-TR

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning. At least one of the symptoms is (1) depressed mood or (2) loss of interest or pleasure.

- (1) Depressed mood most of the day, nearly every day, as indicated either by subjective report or observation made by others.
- (2) Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day.
- (3) Significant weight loss when not dieting or significant gain, or decrease or increase in appetite nearly every day.
- (4) Insomnia or hypersomnia nearly every day.
- (5) Psychomotor agitation or retardation nearly every day.
- (6) Fatigue or loss of energy nearly every day.
- (7) Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely selfreproach or guilt about being sick).
- (8) Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).
- (9) Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or specific plan for committing suicide.

B. The symptoms do not meet the criteria for a mixed episode.

C. The symptoms cause clinically significant distress or impairment in social, occupational or other important areas of functioning.

D. The symptoms are not due to the direct physiological effects of a substance (for example, a drug of abuse, a medication), or a general medical condition (for example, hyperthyroidism).

E. The symptoms are not better accounted for by bereavement, i.e. after the loss of a loved one, the symptoms persist for longer than 2 months or are characterised by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms or psychomotor retardation.

Source: American Psychiatric Association. DSM-IV-TR. Diagnostic and statistical manual of mental disorders, 4<sup>th</sup> ed. Barcelona: Masson 2003.

## 4.4. Differential diagnosis

Table 7 shows the main drugs, substances, and diseases that can appear with depressive symptoms in children and adolescents (according to ICD-10 and DSM IV-TR).

## 4.4.1. Comorbidity

The study of child psychology has shown that comorbidity is a rule more than an exception<sup>57</sup>.

Between 40% and 90% of depressed adolescents suffer from a comorbidity disorder<sup>58</sup>, and at least 20-50% have two or more comorbid diagnoses. One review of epidemiological studies<sup>59</sup> highlights the presence of behavioural disorders (40%) and anxiety disorders (34%) as those that are most frequently associated, followed by substance abuse.

These disorders possibly share risk factors with the set of depressive symptoms, such as genetic or psychosocial factors, and one could be the cause of the other or could be part of a common set of symptoms (see Tables 8 and 9).

Table 7. Differen	tial diagnosis of the	e maior depressiv	/e disorder

Other diseases*	Drugs	Substances
<ul> <li>Endocrines: anaemia, hyperthyroidism, Addison's disease.</li> <li>Neurological: post-concussive syndrome, epilepsy.</li> <li>Metabolic: diabetes, deficit of vitamin B12.</li> <li>Autoimmune: SLE.</li> <li>Infectious: hepatitis, mononucleosis, HIV.</li> </ul>	<ul> <li>Systemic glucocorticoids.</li> <li>Anticonvulsants.</li> <li>Neuroleptics.</li> <li>Stimulants.</li> <li>Oral contraceptives.</li> </ul>	<ul> <li>Alcohol.</li> <li>Cocaine.</li> <li>Opiates.</li> <li>Amphetamines.</li> <li>Cannabis.</li> </ul>

\* These possible causes must be kept in mind in order to perform the pertinent tests if there are indications that lead to these pathologies.

SLE: systemic lupus erythematosus, HIV: human immunodeficiency virus. Source: own preparation.

In view of a set of behavioural symptoms, it is important that a clinician always consider the major depressive disorder, given that the nature and repercussions within the environment of those symptoms can cause an underlying depressive disorder to be overlooked.

**Table 8.** Differential diagnosis of major depression and other psychiatric disorders in children and adolescents

Non-affective psychiatric disorders	Affective pole psychiatric disorders	Other sets of symptoms
Attention deficit hyperactivity disorder.	• Dysthymia.	• Pre-menstrual syndrome.
Anxiety disorders.	• Bipolar disorder.	<ul> <li>Non-pathological grief.</li> </ul>
• Eating behaviour disorder.	Adaptive disorder.	
Personality disorder.		
• Behaviour disorder.		
Psychotic disorders.		

Source: own preparation.

Comorbidity is highly significant with respect to the clinical prognosis (a worse response to treatments, major symptomatic persistence, greater tendency to become chronic, and a greater risk of mortality) and with respect to the high social cost (decrease of labour performance and greater use of resources).

Nevertheless, it must be kept in mind that an analysis of the comorbidity of affective disorders with other mental disorders is complex and controversial, not only due to the high frequency but also due to the existence of symptomatic overlap, the scarcity of pathognomonic signs and symptoms, the variability of the diagnostic criteria, the methodological differences applied, and the scarcity of longitudinal and prospective studies.

Children	Adolescents
Separation anxiety.	• Dysthymia.
Other anxiety disorders.	Substance abuse.
• ADHD.	Behaviour disorder.
	• Social phobia.
	Anxiety disorder.
	• ADHD.

ADHD: Attention deficit hyperactivity disorder. Source: own preparation.

# 5. Risk factors and the assessment of major depression

#### **Questions to be answered:**

- What are the risk factors of depression in children and adolescents?
- What are the scales used most often to assess depression in children and adolescents?
- Does screening of depression in children and adolescents improve the long-term outcomes?

## 5.1. Risk factors

A risk factor is any circumstance or situation that increases the likelihood of developing a disease or the likelihood that an adverse event might occur. Risk factors are not necessarily causes, but rather they are associated with the event, and since they have predictive value they can be used for prevention<sup>60, 61</sup>. Depression in children and adolescents is a complex illness that has multiple risk factors, which occasionally interact and can have an accumulative effect.

It is unlikely that a single risk factor might explain the development of depression or reduce the likelihood of occurrence or that controlling that factor might be enough to prevent depression<sup>62, 63</sup>.

## 5.1.1. Family and environmental factors

Family factors and the social context could play an important role in the development of depression; basically those factors that are beyond one's own control, that occur as an unpredictable event within the daily environment, and that recur over time.

#### Family risks

Depression in parents is considered to be an important risk factor, and it is associated with depression in the parents' descendents<sup>62,64,65</sup>. It has been seen that the children of parents with depression show a three-to-four times greater likelihood of developing mood disorders<sup>63,66</sup>, and specifically the maternal psychopathology is considered to be a predictor of depression in children<sup>67</sup>.

Family alcoholism has also been associated with a greater likelihood of depression<sup>67</sup>.

The family context in which a child or adolescent lives seems to play a significant role in the development of depression. The most common risk factors are the existence of spousal conflicts or emotional difficulties between one of the parents and the child<sup>62,66,68</sup>. Other risk factors associated with depression also include different forms of abuse such as physical, emotional, and sexual abuse and negligent care, as well as negative life events, divorce or conflictive separation of the parents, the loss of friendships, and the death of a family member or friend<sup>62-66,68-71</sup>.

Parents working outside the home, a low income, or living in disadvantaged areas (if they occur separately) do not seem to present a strong association with the development of depression in children and adolescents<sup>62</sup>.

Risks related to the environment

Adolescent depression is often associated with the existence of interpersonal conflicts and the existence of rejection by different members of the social environment, which increases social relationship problems. Thus, children and adolescents with few friends show a greater likelihood of developing depression, as well as behaviour disorders and greater social isolation<sup>62</sup>.

Other factors also associated with a greater number of depressive symptoms include living in family structures that are different from those of the biological parents, health problems in adolescents, or poor adaptation to family, friends, school, work, and a partner.

There doesn't seem to be an association with living in a rural or urban environment<sup>72</sup>.

Bullying and humiliation (such as degrading treatment, being laughed at in front of others, or feeling ignored) are also risk factors of depression<sup>69</sup>.

Children and adolescents without a home, those who are admitted to shelters, those who are refugees, and those with a history of delinquency, especially those who are shut away in security institutions, should be considered to be at a high risk of presenting mental disorders<sup>62</sup>.

Finally, addiction to nicotine, alcohol abuse, or the consumption of illegal drugs are also considered to be risk factors associated with depression<sup>72</sup>.

## 5.1.2. Individual factors

#### Sex

Before adolescence, depressive disorders are practically the same in boys and girls. However, in the first half of adolescence, these disorders are two to three times more frequent in females<sup>69</sup>. Possible explanations include the hormonal changes that occur, an increase in stress and a bad response to it, differences in interpersonal relationships, and a tendency towards intrusive thoughts<sup>62, 63</sup>.

#### Genetic and biochemical risk factors

As previously stated, from 20% to 50% of children and adolescents with depressive disorders show a family history of depression or other mental illness<sup>66</sup>. However, current information suggests that genetic risk factors could be less important in the appearance of depression in childhood than in adolescence<sup>62</sup>.

However, the weights of both genetic factors and environmental factors in the development of depression are not clear. Thus, studies performed on twins indicate that depressive symptoms could be explained by the presence of genetic factors<sup>63</sup> in 40-70% of the cases. However, the action mechanisms of genes at different levels until the clinical manifestation of depression are still unkown<sup>73</sup>. For some authors, the more severe the depression, the greater the influence by the environment<sup>74</sup>; while for others, the most severe clinical symptoms of major depression would be more influenced by genetics<sup>73</sup>.

There is some evidence that indicates that alterations of the serotonergic and adrenal cortical systems could be involved in the biology of depression in children and adolescents. Thus, alterations of the serotonergic function have been seen in children with a family history of depression. Moreover, increased levels of cortisol and of dehydroepiandrosterone predict the onset of depression in subgroups of adolescents at a high psychological risk of the appearance of depression<sup>62, 70</sup>. There also seem to be alterations of the levels of growth hormone, prolactin, and cortisol in youths who are at risk of depression<sup>63</sup>.

#### Psychological factors

It has been thought that temperament is genetically/biologically based, although experience and learning (in particular within the social context) can have an influence on the development and expression thereof.

Negative affectivity refers to the tendency to experience negative emotional states, which are accompanied by behavioural characteristics (such as social inhibition and withdrawal) and cognitive characteristics (such as difficulty concentrating). Negative affectivity involves greater reactivity towards negative stimuli, and it is associated with a greater probability of emotional disorders, above all in girls<sup>63</sup>.

When stressful life events occur, cognitive characteristics associated with negative affectivity, such as feelings of abandonment or the loss of and/or low self-esteem, as well as ruminative thoughts, can make it difficult to face these events, thereby increasing the likelihood of suffering from depression in comparison with those individuals without these characteristics<sup>62, 63</sup>.

The presence of depressive symptoms, such as anhedonia or thoughts of death, significantly increase the risk of the appearance of major depression in children and adolescents. Finally, those children or adolescents who suffer from physical or learning disabilities<sup>62</sup>, attention deficit, hyperactivity, or behaviour disorders are also at greater risk<sup>63, 66, 70</sup>.

To conclude, Table 10 provides a summary of the main personal factors involved in depression in children and adolescents, which are classified as vulnerability, activation, and protective factors<sup>62</sup>.

## 5.2. Assessment

The assessment of depression in children and adolescents can have a diagnostic purpose when the objective is to verify the presence or absence of diagnostic criteria (normally ICD or DSM), it can be done for the purpose of quantifying the frequency or severity of the symptoms, and/or the objective can be of diagnostic screening.

The assessment of major depression in childhood and adolescence has some special characteristics, although it shares the objectives of any assessment in mental health. Thus, it is important to consider that depressive symptoms are expressed differently in children than in adults, in part due to a child's limited capacity to recognise and communicate emotions and negative thoughts, above all in younger children.

Vulnerability factors (they increase the general predisposition but rarely cause the illness directly):	
Genetic factors.     History of affortive disorder in parente	
History of affective disorder in parents.     Eemale sex	
Post-puberty age.     Province depressive symptome	
<ul> <li>Previous depressive symptoms.</li> <li>Previous physical and acyclic busics in childhood, capacially formalize</li> </ul>	
Previous physical and sexual abuse in childhood, especially females.	
Negative affectivity.	
Ruminative types of thoughts.	
<ul> <li>Activation factors (directly involved in the onset of depression, and their effects can be greater in the presence of vulners.</li> <li>Marital problems.</li> <li>Family de-structuring.</li> <li>Harassment or humiliation.</li> <li>Situations of physical, emotional, or sexual abuse.</li> <li>Consumption of toxic substances.</li> </ul>	
<ul> <li>Protective factors (they reduce the likelihood of depression in the presence of vulnerability or activation factors):</li> <li>Good sense of humour.</li> <li>Good friendships.</li> </ul>	
Close relationships with one or more members of the family.	
Socially-valued personal achievements.	
Normal-high level of intelligence.	
Participation in some type of sport or physical activity.	
Participation in school or social clubs or in volunteer work.	

#### Table 10. Factors of vulnerability, activation, and protection in child and adolescent depression

Source: Own preparation and adapted from NICE62

It is therefore important to obtain information from different sources, in addition to from the child. There must be information from parents and teachers, and the assessment must be oriented towards symptoms that are related to behavioural problems (aggressiveness, school performance, etc.) or towards aspects such as somatic complaints and social withdrawal, although cognitive aspects must also be quantified.

## 5.2.1. Assessment methods

Different instruments exist for assessing depression in children and adolescents, which basically consist of self-report questionnaires (self- or hetero-applied) and interviews with different degrees of structuring. The selected assessment instrument will depend basically on the objective.

Some assessment instruments are more general and others are more specific, and some have reduced versions to decrease the time needed to complete them<sup>66</sup>. They can even be used in different areas, not just the clinical area<sup>62, 75</sup>.

#### Depression questionnaires

One of the assessment methods used the most is the questionnaire. They are instruments whose objective is to record recent feelings and ideas and to provide a more or less comprehensive review of the different areas/dimensions that might be affected: affective, behavioural, and/or physiological.

Depression assessment questionnaires have different utilities: quantifying the intensity of the symptomatology, establishing problematic behavioural areas, detecting symptomatological changes (monitoring of symptoms), performing screening, and even qualifying the type of disorder.

Table 11 presents some of the questionnaires that can be used to assess depression.

#### Instruments based on interviews

Clinical interviews vary according to the age group at which they are directed, and depending on their format they can be semi-structured or structured interviews. They are currently used extensively, given that they have the advantage of allowing data to be made uniform (Table 12).

The majority are based on an existing diagnostic system, and in general they offer a guide to the clinician for asking questions and recording the information obtained, which allows establishing a diagnosis and studying comorbidity. These interviews require training to be used, and they must be used by mental health specialists.

Name/author, year	Age (years)	No. of items	Characteristics	Adaptation to and validation in Spanish
Children's Depression Inventory (CDI)/Kovacs, 1992 (76).	7-17	27 (long) 10 (brief)	<ul> <li>Modified version of the BDI for use with children and adolescents.</li> <li>Most of the items measure cognitive aspects. They do not measure either biological or behavioural aspects.</li> <li>With different cutoff points according to the purpose (screening or assistance with diagnosis).</li> </ul>	- Short version: Del Barrio et al.(77) - Long version: Frías et al.(78)
Reynolds Adolescent Depression Scale (RADS)/ Reynolds, 1987 (79).	13-17	30	<ul> <li>It shows a high percentage of false positives (30%) at the depression cutoff point.</li> <li>It is not particularly affective at detecting changes.</li> </ul>	Del Barrio et al. (1994) (80)
Reynolds Child Depression Scale (RCDS)/Reynolds, 1989 (81).	9-12	30	<ul> <li>A version similar to the RADS for use with children.</li> <li>In general, worse psychometric qualities than the RADS.</li> </ul>	Del Barrio et al. (1996) (80)
Beck Depression Inventory-2 <sup>nd</sup> ed (BDI- II)/ Beck et al. 1996 (82).	13-18	21	<ul> <li>Most recent form, close to the DSM- IV, designed to be completed in 10 minutes.</li> <li>It precisely differentiates adolescents who could be suffering from depression from those with a lower likelihood.</li> </ul>	Sanz et al. (83-85)
Kutcher Adolescent Depression Scale (KADS)/ Le Blanc et al., 2002 (86).	6-18	16 (long) 6 (brief)	<ul> <li>Good reliability and validity.</li> <li>The short version could be effective at discarding depression in community samples and has obtained better outcomes than the BDI.</li> </ul>	No data.
Patient Health Questionnaire- Adolescent version (PHQ-A)/Johnson et al., 2002 (87).	13-18	83	<ul> <li>PHQ questionnaires based on the DSM-IV.</li> <li>Designed for use in primary care.</li> <li>Includes items about depression and other frequent disorders of adolescence.</li> </ul>	No data.

Table 11. Questionnaires used for assessing depression in children and adolescents

Scale for the assessment of depression for teachers (EDSM)/ Domènech and Polaino, 1990 (88).	8-12	16	<ul> <li>The items refer to depression, happiness, and popularity.</li> <li>Its authors have obtained four factors: performance, social interaction, inhibited depression, and anxious depression.</li> <li>The cutoff points vary according to age.</li> </ul>	Prepared for the Spanish population.
Center for Epidemiological Studies –Depression Scale (CES-D)/Radloff, 1977 (89).	12-18	20	<ul> <li>Without clear validity and with weak points in adolescents.</li> <li>In the youngest age group, it measures depressive symptomatology more than depression.</li> <li>Adapted and validated in Spanish.</li> </ul>	Soler et al.(90)
Pre-school Symptoms Self-Report (PRESS)/ Martini et al., 1990 (91).	3-7	_	<ul> <li>Depression non-specific.</li> <li>Pictorial presentation.</li> <li>25 sheets. Each sheet contains a happy or sad character. One of them must be chosen.</li> <li>There are versions according to sex and for parents and teachers.</li> <li>Good psychometric characteristics with the Spanish population.</li> </ul>	Pictorial: good psychometric characteristics in the Spanish population.
Pediatric Symptom Checklist (PSC)/ Jellinek et al., 1979 (92).	3-16	35	<ul> <li>Version for parents and for adolescents.</li> <li>Advantages: brevity and capacity to screen different psychosocial and behavioural aspects.</li> <li>Not designed for identifying specific mental illnesses.</li> </ul>	No data.
Child Behavior Checklist (CBCL)/ Achenback, 1985 (93).	4-18	133	<ul> <li>The original version is for parents, but there is a version for teachers and another, self-applied version for adolescents from 11-18 years of age.</li> <li>It includes items on some manifestations of depression.</li> <li>Advantages: it provides information on behavioural or social behaviour problems.</li> </ul>	Rubio-Spitec et al. (94)
Youth Self-Report (YSR)/ Achemback et al., 1987 (95).	11-18	120	<ul> <li>Self-report, complemented by versions of the CBCL directed at parents.</li> <li>It includes items on social adaptation and behavioural and emotional problems.</li> <li>Advantages: it can be complemented by versions of the CBCL for parents and teachers.</li> </ul>	Lemos et al. (96)
Mood and Feelings Questionnaire (MFQ)/ Wood et al., 1995 (97).	8-18	33 (long) 13 (brief)	<ul> <li>Format for children and parents.</li> <li>Good diagnostic validity.</li> <li>With different cutoff points depending on whether it concerns adolescents or younger children.</li> </ul>	No data.

Source: own preparation and adaptations of various sources<sup>62, 66, 68, 98-101</sup>.

Name/author, year	Age (years)	Time (hours)	Characteristics	Adaptation to and validation in Spanish
Kiddie Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS)/ Kaufman et al., 1997 (102).	6-18	1,5-3	<ul> <li>Semi-structured.</li> <li>Reliable and valid procedure for the diagnostic assessment of depression.</li> <li>It takes a long time; not ideal for daily use in a doctor's office.</li> </ul>	Ulloa et al. (103)
Diagnostic Interview Schedule for Children (DISC)/Costello et al., 1985 (104).	6-17	1-2	<ul> <li>Structured.</li> <li>Advantage: it can be completed by non-health personnel with brief training.</li> </ul>	Bravo et al. (105)
Diagnostic Interview for Children and Adolescents –Revised (DICA-R)/ Herjanic y Reich, 1991 (106).	6-18	1-2	<ul> <li>Structured.</li> <li>Version for parents and children.</li> <li>Good validity in adolescents.</li> <li>It seems to have a tendency to under- diagnose adolescents, while it over- diagnoses externalising disorders.</li> </ul>	Ezpeleta et al. (107)
Child and Adolescent Psychiatric Assessment (CAPA)/ Angold and Costello, 2000 (108).	9-17	1-2	<ul> <li>Structured.</li> <li>Version for parents and children.</li> <li>Reliable at diagnosing depression.</li> <li>Detailed glossary for interviewers.</li> </ul>	No data.
Development and Well- Being Assessment (DAWBA)/ Goodman et al., 2000 (109).	5-16	_	<ul> <li>Structured interview and open questions.</li> <li>Set of questionnaires, interviews, and rating scales designed to generate psychiatric diagnoses based on the ICD-10 and on the DSM-IV in children from 5-16 years.</li> </ul>	No data.
Children's Depression Rating Scale, Revised (CDRS-R)/ Poznanski et al., 1984 (110).	6-12	0,5	<ul> <li>Semi-structured</li> <li>Assesses the level of severity of depression.</li> <li>It scores verbal and non-verbal information (speaking time, hypoactivity, non-verbal expression of depressive affect).</li> </ul>	Polaino and Domenech (111)

Table 12.	Structured and semi-structured interviews used for depression in children
	and adolescents

Source: own preparation and adaptations of various sources<sup>58, 94, 96, 97</sup>.

## 5.2.2. Depression screening

Different epidemiological studies have clearly shown a possible underdiagnosis and under-treatment of depression in a high percentage of children and adolescents. Studies performed in the USA show that only 50% of adolescents with depression are diagnosed before reaching adult age and that two out of every three youths with depression are not detected in primary care<sup>65</sup>.

Therefore, the use of instruments that are capable of screening has been proposed, thereby allowing the early detection of patients with depression so that they can receive suitable treatment or even allow preventive interventions in those patients who are at a high risk of developing major depression<sup>68</sup>.

It is important to consider whether screening would improve the outcomes in children and adolescents with depression and whether it should be done broadly (on the entire general population, meaning on all patients who go to see a doctor) or on a limited basis (only on those patients who show risk factors). There is little comparative data on using questionnaires as screening instruments in childhood and adolescence. The NICE guideline considers the MFQ to be one of the most studied and most solid questionnaires for screening among adolescents, although in Spain it has not been used for this purpose. With respect to screening depression in children, the NICE guideline does not recommend the use of any self-report questionnaire.

In our country, the CDI has shown to be a good screening instrument and has proved to have high differentiating power among normal and depressed children<sup>111</sup>. Nevertheless, this question-naire has some limitations, which include the absence of items related to behavioural and biological aspects, given that it focuses on cognitive aspects<sup>100</sup>.

Regarding the person at whom the screening instrument should be directed in order to achieve the best outcomes, there is a generalised consensus that questions about symptoms and current problems should be asked separately of both children and their parents, and both response groups should be combined to get a better estimation<sup>62, 64, 65, 68</sup>, basically in ages under 14 years<sup>68</sup>. If the screening instrument is directed only at the parents, few cases of depression are detected (false negatives), while if it is only directed at children or adolescents, it is likely that cases that do not present the pathology (false positives) will be detected.

Other potential information providers could be teachers, friends, or siblings<sup>64, 114</sup>, and among the latter, preferably those who have a more intimate relationship, given that they could provide more reliable information<sup>62</sup>. With respect to screening at schools, in one randomised controlled clinical trial it was observed that training teachers to detect depression in adolescents did not improve their ability to recognise this pathology among students<sup>112</sup>.

In any event, these screening instruments would only serve to detect a possible depression, and it would be necessary to subsequently make a diagnosis through a clinical interview<sup>64,65,115</sup>.

Some authors propose that primary doctors should screen adolescents at a high risk of depression during doctor appointments<sup>65</sup>, while different bodies such as the U.S. Preventive Services Task Force<sup>116</sup> or the Canadian Task Force on Preventive Health Care<sup>117</sup> consider current scientific evidence to be insufficient for both recommending and not recommending.

Due to this non-existence of studies that evaluate the effectiveness of screening programmes, it is not generally recommended that depression screening programmes be performed either on the general population or on children or adolescents at high risk. However, an individual and active search of depressive symptomatology in patients who have risk factors is recommended.

3	Depression in children and adolescents presents multiple risk factors that are correlated, which makes it unlikely that a single risk factor could explain the development of depression or that the control thereof would be enough to prevent depression (62, 63).
3	The following are considered to be risk factors in the family environment: the existence of depression in the parents; marital problems; relationship difficulties between one of the parents and the child; the presence of physical, emotional, or sexual abuse; negligent care; as well as negative life events such as conflictive divorce or separation of the parents (62-66, 68-71).
3	Other risk factors also include the existence of interpersonal conflicts and rejection; harassment and humiliation; living in family structures that are different from those of the biological parents; having health problems or poor adaptation to family, friends, school, work, and a partner; as well as suffering the loss of friendships or the death of a relative or friend (62-66, 69-72).
3	Being of the female sex (basically in the first stage of adolescence), having a family history of depression or of another mental illness, and certain biochemical or hormonal alterations could be considered to be individual risk factors, as well as a series of psychological factors such as negative affectivity or neuroticism. Sub-clinical levels of depressive symptoms significantly increase the risk of appearance of major depression in children and adolescents (62, 63, 69, 70, 73).

#### Summary of the evidence

3	Different instruments have been used to assess depression in children and adolescents, basically self-report questionnaires or semi-structured interviews (62, 66, 75).
3	There are few self-applied questionnaires that are valid, reliable, and specifically developed to assess depression in children under the age of six (62, 68).
1⁺	Among self-applied questionnaires for screening depression, the NICE guideline proposes the MFQ as the most-studied questionnaire for application with adolescents (62).
3	In our country, the CDI has proved to be a good screening instrument and has proved to have high differentiating power among normal and depressed children (111).
3	Questions directed at the early detection of depressive symptoms must be asked separately of both children and their parents, and the two groups of responses must be combined to achieve a better estimation, basically in ages below 14 years (62, 64, 65, 68).
	There are no controlled studies that demonstrate that a screening programme improves health outcomes in children and adolescents with major depression.

#### Recommendations

DGPC	Family physicians and primary care paediatricians should have suitable training that allows them to assess those children and adolescents at risk of depression and to record the risk profile in their clinical history.
DGPC	When faced with a child who has suffered from a stressful life event, in the absence of other risk factors, primary care professionals should perform follow-up and foment the normalisation of daily life.
DGPC	Any mental health assessment of a child or adolescent should routinely include questions about depressive symptoms.
1	Major depression should be diagnosed through a clinical interview. Questionnaires alone do not allow making an individual diagnosis.
1	It is not advisable to screen for depression in children or adolescents among the general population due to the non-existence of studies that assess the effectiveness of screening.
1	There should be an active search for depressive symptomatology in those children and adolescents who present risk factors, and children and adolescents should be asked separately from their parents about current symptoms and problems.
1	In children over 8 years of age and in adolescents, one of the most-used and validated questionnaires in Spanish is the CDI. In adolescents, the use of self-applied questionnaires that are validated in Spain and that allow the early detection of depressive symptoms is recommended. Nevertheless, it must not be forgotten that a clinical interview must be performed for a complete diagnosis.

# 6. Treatment of major depression

#### Questions to be answered:

- What is the efficacy of the different types of psychotherapy at treating major depression in children and adolescents?
- Is there any type of psychotherapy that is more effective than another according to the degree of severity of major depression?
- What is the efficacy of the different types of antidepressant drugs at treating major depression in children and adolescents?
- Is there any antidepressant drug considered to be the drug of choice?
- How safe is pharmacological treatment and what is its relationship with suicidal behaviour?

## 6.1. Psychotherapy

Psychotherapy for major depression in childhood and adolescence includes a diverse number of approaches, which are differentiated in aspects such as the theoretical base, the type of activities and how they are implemented, the duration and frequency of treatment, or the involvement of third-parties in therapy. There is evidence that different psychotherapeutic interventions are efficacious in this age group<sup>118</sup>, especially cognitive behavioural therapy and interpersonal therapy for adolescents<sup>71</sup>.

Randomised clinical trials have become a key piece for studying the efficacy of psychological interventions, although they generally present a series of difficulties<sup>119</sup>:

- Variability when applying the same intervention can affect outcomes, which makes it essential to use treatment manuals and to assess the therapist's adherence to said treatment manual.
- The dependent variables of the therapist must be controlled, above all their psychotherapeutic training, clinical experience, and adherence to the treatment manual.
- It is impossible to blind the treatment for whoever is administering it (psychotherapist), and it is complicated to mask the active treatment condition for an independent, external evaluator.
- The characteristics of the selected patients (severity of the depressive disorder, personality, biographical history, etc.) and the use of different measurement variables make a comparison between studies difficult.

Moreover, there are some specific characteristics of the psychotherapy studies performed on children and adolescents with major depression:

- The majority of studies are carried out on adolescents, wherefore conclusions should not be generalised to earlier ages.
- There are differences with respect to the number and quality of studies performed on the various psychotherapies, possibly due to factors related to cost, ethics, and the complexity of these types of trials<sup>62</sup>.

• The size of the effect obtained in some recent meta-analyses has been smaller than in previous studies. This change in the outcomes is due fundamentally to greater methodological rigour<sup>118, 120, 120</sup>.

## 6.1.1. Cognitive behavioural therapy

Cognitive therapy was originally developed by Beck and was formalised at the end of the seventies to be applied to depression<sup>122</sup>. Intervention focuses on the modification of dysfunctional behaviours, distorted negative thoughts associated with specific situations, and disadaptive attitudes related to depression. Behavioural activation is also a key aspect of Beck's cognitive therapy, which places special emphasis on the relationship between activity and the mood state. It is a therapy that actively involves the patient, it is directive, it proposes specific and realistic goals, and it helps to find new perspectives.

Even though cognitive and behavioural models of depression are based on different assumptions to explain the origin and persistence of the disorder, the mode of therapy that shares cognitive techniques and systematically uses behavioural techniques is called cognitive behavioural therapy (CBT). CBT has the greatest number of published studies, both on adults and on children and adolescents<sup>123</sup>.

CBT has demonstrated its efficacy in the treatment of moderate depression in adults, with outcomes that are similar to those obtained with pharmacological treatment<sup>119</sup>.

CBT in children and adolescents differs neither in the logic nor in the essential therapeutic elements from what is used in adults, but as expected, the therapeutic procedures are adapted to the age of the child. For example, psychoeducation about the role of thoughts in emotional states can make use of resources such as drawings and illustrations.

The most important characteristics of CBT used in the child and adolescent population are the following<sup>65, 124</sup>:

- It is therapy that focuses on the present and is based on the assumption that depression is composed of an erroneous perception of events and a lack of skills.
- Its essential components are behavioural activation (increasing potentially gratifying activities) and cognitive restructuring (identifying, questioning, and substituting negative thoughts). Learning behavioural competencies and social skills in general are also important elements.
- Training manuals are structured on skill training sessions and optional sessions on specific problems. Therapy strategies are usually based on the clinical formulation of the problem (formulation in which special emphasis is placed on the factors associated with persistence of the disorder), and the therapeutic session follows an agenda of problems that must be treated.
- Sessions with parents and/or family members are frequently included for the purpose of reviewing progress and increasing adherence to the treatment.

Regarding the parents' role in treatment, some authors have qualified it as essential<sup>125</sup>. Parents not only contribute important information for the psychological assessment, for posing the objectives, and for orienting the treatment, but they can also act as agents of therapeutic change, for example by facilitating the performance of certain tasks indicated in the psychological treatment sessions.

#### 6.1.1.1. Individual CBT

#### Available scientific evidence

The CPG drafted by NICE includes the outcomes of six randomised clinical trials (RCTs) that assess individual CBT and that obtain different outcomes (Table 13):

- In one study with a small sample size, individual CBT did not show greater efficacy than a wait-list control group of patients.
- Another study did not show greater efficacy than fluoxetine or than the combination of them both (CBT and fluoxetine).
- Individual CBT obtained better outcomes when it was compared with relaxation, supportive therapy, and behavioural family therapy. In these studies, the differential effects between CBT and the control group were not maintained over the long term. This absence of differences could be attributed to the onset of the effect of the therapies performed in the control group.

Author	Duration	Comparison	Outcome/efficacy
Vostanis et al. (1996)*(129)	9 sessions with a weekly frequency.	Supportive therapy.	CBT more efficacious.
Wood et al. (1996)*(130)	5-8 sessions with a weekly frequency.	Relaxation.	CBT more efficacious.
		Behavioural family therapy, supportive therapy.	CBT more efficacious.
Rosello et al.12 sessions of 60 minutes each,(1999)*(132)with a weekly frequency.		Control (wait list).	CBT less efficacious.
TADS (2004)15 sessions of 50-60 minutes each over 12 weeks		Placebo, fluoxetine, CBT + fluoxetine.	CBT less efficacious versus fluoxetine and versus CBT + fluoxetine.
Melvin et al. (2006) (128) 12 sessions of 50 minutes each, with a weekly frequency.		Sertraline, CBT + sertraline.	CBT more efficacious versus sertraline, CBT + sertraline less efficacious versus each treatment separately.
TADS (2007)	After short-term CBT (TADS 2004), 3-6 sessions of 50-60 minutes each over 6 weeks. Followed by booster sessions every 6 weeks until 36 weeks of treatment is completed.	Fluoxetine, CBT + fluoxetine.	Similar efficacy of CBT, fluoxetine, and CBT + fluoxetine.

## Table 13. Individual cognitive behavioural therapy in major depression in children and adolescents

Source: own preparation and data from the NICE guideline\* 62

One of the most important randomised controlled trials performed to date is the multicentre TADS study (Treatment for Adolescents with Depression Study)<sup>126</sup>. It was performed with adolescents from 12 to 17 years of age for the purpose of assessing the treatment of major depression in comparison with a placebo, fluoxetine, cognitive behaviour therapy, and a combination thereof.

The NICE guideline includes the outcomes of the TADS after 12 weeks of treatment, but this trial prolonged its duration up to 36 weeks<sup>127</sup> in the CBT group, the fluoxetine group, and the combination of both treatments. After 12 weeks, CBT obtained a response rate similar to that of the placebo group. However, at 36 weeks there was a convergence of outcomes, with a significant clinical improvement in the three treatment groups. The response rates of the groups were the following: 81% (CBT and fluoxetine), 86% (combined treatment).

Melvin *et al.* 2006)<sup>128</sup> assessed individual CBT (12 sessions at 50 minutes each, with a weekly frequency) in comparison with drug treatment using sertraline and the combination of both therapies in adolescents with mild-moderate depression. After 12 weeks of treatment, the three groups obtained statistically significant improvement, and this improvement was maintained in the 6-month follow-up. Combined treatment was no better than either CBT or sertraline. CBT in direct comparison with sertraline obtained a better response to treatment, although the low dose of sertraline used in this study should be taken into account.

The outcomes of short-term, individual CBT in general are positive, and greater efficacy is obtained versus other interventions (relaxation, supportive therapy, or behavioural family therapy), although not versus placebo or wait-list patients. While individual CBT was less effective than fluoxetine in the short term, in the long term it obtained response rates that were similar to the drug alone or to the combination of them both.

#### 6.1.1.2. Group CBT

In this section, the NICE<sup>62</sup> guideline included the outcomes of eight RCTs (Table 14), which clearly show the following:

- Group CBT is an effective treatment at reducing symptoms in comparison with the wait list, with no treatment, or with the usual care. The differences are not maintained in the long term, although this absence of differences, as with individual CBT, could be due to the onset of the effect of the care given to the control group.
- Versus other interventions such as relaxation, problem-solving techniques, and self-modelling, there is no conclusive evidence.
- Also including parents in group CBT (14-16 sessions of 120 minutes each over 7-8 weeks) seems to increase the efficacy of the therapy, although the evidence is not conclusive.

Author	Duration	Comparison	Outcome/efficacy
Reynolds et al. (1986) (133)	10-15 sessions of 50-120 minutes each for 5-8 weeks.	Wait list, group relaxation.	CBT more efficacious versus the wait list. Versus group relaxation, limited or non-conclusive evidence.
		Wait list, skill training, and problem- solving.	CBT more efficacious than the wait list. Versus skill training and problem-solving, outcomes of limited or non-conclusive evidence.
		Wait list, group relaxation, self- modelling.	CBT more efficacious versus the wait list. Versus group relaxation and self-modelling, limited or non- conclusive evidence.
Lewinsohn et al. 14-16 sessions of 120 minutes each for 7-8 weeks.		Wait list, group therapy + parents included.	CBT more efficacious than wait-list control group. Non-conclusive evidence about including parents.
Weisz et al. (1997) (137)	8-16 sessions of 40-60 minutes each for 5-8 weeks.	No treatment.	CBT more efficacious.
		Wait list, group therapy + parents included.	CBT more efficacious than wait-list control group. Non-conclusive evidence about including parents.
Clarke et al. (2002) (139)	8-16 sessions of 40-60 minutes each for 5-8 weeks.	Usual care.	CBT more efficacious.
Rohde et al. (2004) (140)	12-16 sessions of 40-120 minutes each for 5-8 weeks.	Skill training and problem-solving.	Limited or non-conclusive evidence.

Table 14. Group cognitive behavioural therapy in major depression in children and adolescents

Source: own preparation based on the NICE<sup>62</sup> guideline.

Subsequently, three RCTs<sup>140-142</sup> were published on group CBT in very specific environments: children's shelters and refuges. In these studies, group CBT was compared with group intervention based on skill training<sup>141,142</sup> and versus non-intervention<sup>141</sup>, and it was found that group CBT was more effective.

In brief, group CBT has proved to be more effective than a control group of wait-list patients, patients receiving usual care, or patients without treatment. Versus other interventions such as relaxation, problem-solving techniques, and self-modelling, there is no evidence that this therapy is more effective.

### 6.1.2. Interpersonal therapy

Interpersonal therapy (IPT) was developed by Klerman<sup>143</sup> for the purpose of being applied as maintenance treatment for depression, although it has subsequently been used as independent treatment and for treating other psychopathologies.

IPT mainly deals with interpersonal relationships, and it intervenes in the immediate social context of the patient. It is based on the assumption that interpersonal problems can act as activators of or exacerbate depression. It therefore focuses on interpersonal problems for the purpose of favouring adaptive changes, which consequently generate an improvement in the depressive symptomatology.

IPT conceptualises depression as a set of three components: symptomatology, social functioning, and personality. Its purpose is to have an impact on the first two components. The therapeutic model focuses on four interpersonal problems: grief, interpersonal disputes, role transition, and interpersonal deficits<sup>144</sup>.

Mufson et al. (1993) were the first to adapt IPT for use with depressed adolescents (IPT-A)<sup>145</sup>:

- It is a standardised treatment for use once a week over 12 weeks (the same as IPT for adults).
- It is differentiated from IPT for adults by the number of individual sessions: IPT-A consists of 12 individual sessions, added to which are sessions that include the parents.
- Key aspects of adolescence such as the following are covered: individualisation, the establishment of autonomy, the development of sentimental relationships, strategies for facing interpersonal losses, and managing the influence of companions.

#### Available scientific evidence

The CPG drafted by the NICE<sup>62</sup> (Table 15) included three RCTs, from which the following conclusions can be reached:

- IPT was more effective when compared with a wait-list and usual care control group regarding remission or a reduction of depressive symptomatology.
- In only one of the RCTs was there clear improvement in the general, social, and family functioning versus usual treatment.

Subsequently, in a study by Young et al., (2006)<sup>146</sup>, an IPT-A (Interpersonal Psychotherapy-Adolescent Skills Training) programme with a guideline of 10 weekly sessions of 90 minutes each was assessed. This programme was an adaptation of the IPT-A for use in the school environment. Two individual sessions and eight group sessions were held, which were compared with a control group that received school counselling. The adolescents of the IPT-A group obtained a significantly greater improvement with respect to depressive symptomatology than the control group, which improvement remained stable at follow-up after three and six months.

In the open study by Young *et al.* (2006), IPT-A compared with usual treatment in the school environment (fundamentally group or family therapy) also had better outcomes in adolescents with comorbid depression and anxiety<sup>147</sup>.

Author	Duration	Comparison	Outcome/efficacy	
Mufson et al. (1999)* (148)		Wait list.	IPT more efficacious.	
Rosello et al. (1999)* (132)	Twelve, 35-minute sessions for 16 weeks.	Usual care.	IPT more efficacious.	
Mufson et al. (2004)* (149)		Individual CBT, wait list.	IPT more efficacious than wait list; no conclusive evidence versus CBT.	
Young et al. (2006) (146)	10 sessions of 90 minutes each, with a weekly frequency.	Counselling.	IPT more efficacious.	
Young et al. (2006) (147)	10 sessions of 90 minutes each, with a weekly frequency.	Usual care (school environment).	IPT more efficacious.	

Table 15. Interpersonal therapy in major depression in children and adolescents

Source: own preparation and data from the NICE guideline\* 62

IPT-A has obtained good outcomes versus the wait list and usual care, as well as in clinical and school environments. Versus individual CBT, the evidence is not conclusive, and there has been no comparison with other interventions.

## 6.1.3. Individual psychodynamic therapy

Psychodynamic therapy is derived from psychoanalysis and is based on Freud's theory about psychological functioning: the nature of conflicts can be unconscious to a great extent, wherefore the therapeutic objective is to resolve these conflicts<sup>150</sup>.

The NICE guideline included preliminary data from the study by Trowell *et al.* (2007)<sup>151</sup> on individual psychodynamic therapy in children and adolescents with depression. This multicentre RCT compared individual psychodynamic therapy (16-30 sessions of 50 minutes each over 36 weeks) with family therapy (8-14 sessions of 90 minutes each over 36 weeks). Both therapies appeared to be equally effective in children and adolescents with moderate to severe depression. In the follow-up at 36 weeks, the entire group treated with individual psychodynamic therapy did not present clinical criteria of depression, which suggests good maintenance of the outcomes of this type of therapy. Moreover, in both groups a decrease of the comorbid pathology was found, specifically in behavioural and anxiety disorders.

The evidence of this type of therapy is not conclusive, given that only one study was found and it had methodological deficiencies.

## 6.1.4. Family therapy

Family therapy (FT) makes family relationships the main focus of its intervention. Some authors have pointed out that there is strong evidence of association between child and adolescent depression and factors such as weak affective bonds, high levels of criticism, family hostility, or parental psychopathology<sup>152</sup>.

Even though there are different schools within the family approach, family therapy could be divided generically into behavioural, psychodynamic, and systemic family therapy. Family interventions have a series of common characteristics<sup>153</sup>.

- Several differentiated phases: evaluation, psychoeducation, intervention on the functioning of several areas (cognitive, affective, interpersonal, and behavioural, depending on the approach of the specific therapy), and feedback.
- The intervention must be applied by a qualified professional (with experience in FT).
- The participant must be accompanied by his or her family to the majority of the therapy sessions.
- There are usually a minimum of six sessions, with a duration of one hour each.

#### Available scientific evidence

There are few randomised clinical trials about the use of FT in major depression in children and adolescents. The NICE guideline includes three studies (Table 16):

- In one of the studies, FT was assessed in comparison with a wait-list control group, and good outcomes were obtained with respect to reducing depressive symptomatology. The adolescents who received FT also showed less family conflict and lower levels of anxiety and suicidal ideation. At six months, high remission rates were found.
- In another study, FT was compared with individual CBT and supportive therapy. The therapy that had the best outcomes with respect to reducing depressive symptomatology and remission rates was individual CBT. No differences between the groups were observed at the follow-up. FT reduced family conflict to a greater extent with respect to individual CBT.

Subsequently, a multicentre study<sup>151</sup> was published, which compared FT (14 sessions of 90 minutes each over 36 weeks) with individual psychodynamic therapy (30 sessions of 50 minutes each over 36 weeks). FT had higher rates of remission and symptom reduction, with good maintenance of outcomes at the 6-month follow-up.

Author	Duration	Comparison	Outcome/efficacy
Brent et al.* (131)	12-16 sessions of 60 minutes each for 12-16 weeks.	Individual CBT, supportive therapy.	FT less efficacious, although better outcomes with respect to family functioning.
Diamond et al. (2002)* (152)	12-15 sessions of 60-90 minutes each for 6 weeks.	Wait list.	FT more efficacious.
Trowell et al. (2007) (151)	Fourteen, 90-minute sessions for 36 weeks.	Individual psychodynamic therapy.	Equal efficacy between FT and individual psychodynamic therapy.
Tompson et al. (2007) (154)	9-12 sessions of 1 hour each for 12-20 weeks.	No control group.	Remission rates similar to those obtained in CBT or IPT efficacy studies.

Table 16. Family therapy in major depression in children and adolescents

Source: own preparation and data from the NICE guideline\* 62

The uncontrolled trial by Tompson *et al.*(2007)<sup>154</sup>, performed for the purpose of developing a treatment manual, assessing its viability, and examining the efficacy of family therapy (9-12 sessions of one hour each for 3-5 months), found remission rates similar to those obtained in CBT or IPT efficacy studies.

It was clearly shown that family factors can act as depression maintenance factors and that the "expressed emotion" construct could act as a mediator of the response to treatment. The usual techniques of cognitive behavioural therapy such as the following were used in this study: psychoeducation, communication skills, and scheduling of problem-solving activities or skills, called "family focus treatment" by the authors.

Multi-systemic therapy (MST) is a psychotherapeutic programme that includes aspects of family therapy and CBT, and it has been used in the United States with youths who have severe adolescent, social, emotional, and behavioural disorders. Despite the fact that the first reviews favoured MST versus other therapeutic options, a recent meta-analysis<sup>155</sup> found that there was no conclusive evidence of the effectiveness of this technique with respect to other techniques.

In summary, FT is more effective than the wait list at reducing depression levels, and one study showed the same efficacy as individual psychodynamic therapy.

#### 6.1.5. Relapse prevention

30% of children and adolescents with major depression show recurrence within a period of five years, many of them within the first year after the episode. Others will suffer from an episode in adult life<sup>62</sup>.

It has been clearly shown in clinical trials that at the end of treatment a considerable number of patients continue to show symptoms. Despite this, the majority of studies do not perform follow-up beyond nine months, and those that did so (nine months to two years) found that a large percentage of the sample continued to show depressive symptoms or recurrence<sup>120</sup>.

In clinical practice, it is important to assess the existence of possible causal factors or maintainers of depression, which include difficulties in family relationships, a psychiatric illness of the parents, difficulties with the peer group, cultural and ethnic characteristics, physical illnesses, or comorbid pathology.

#### Available scientific evidence

In this section, the NICE<sup>62</sup> guideline includes two, non-randomised trials:

- In one of them, after short-term group CBT treatment (eight sessions of two hours each), the patients were randomised to receive one or two *booster* sessions of group CBT and assessments every four months, or only assessments every four or 12 months. It was found that there was a low probability that the booster sessions were effective at preventing relapses.
- In another study, after short-term treatment (eight sessions of group CBT), the continuation group CBT for six months was compared with a historical control group from a previous trial. Limited evidence was found that continuing with group CBT reduced the risk of relapses.

In the TADS study, after 12 weeks of cognitive behavioural therapy, continuation treatment lasting six weeks was provided and booster sessions every six weeks were given until 36 weeks of treatment was completed. Once this period ended (unlike what occurred at 12 weeks), clinical improvement was found in the CBT group, similar to the group that received fluoxetine or both treatments combined. The response rates for CBT were 48% in week 12, 65% in week 18, and 81% in week 36, while fluoxetine had response rates of 62%, 69%, and 89%, respectively<sup>127</sup>.

In brief, carrying out continuation and maintenance (booster) sessions and prolonging treatments with CBT beyond 12 weeks could maximise the likelihood of a response and minimise relapses.

## 6.2. Pharmacological treatment

The efficacy of antidepressants in treating major depression in adults is well-documented, but in the case of children and adolescents, there is controversy about the most suitable therapy and, within pharmacological treatment, about which is the most ideal antidepressant with respect to both safety and efficacy.

# 6.2.1. Prescription of antidepressants in childhood and adolescence

In the year 2000, the Royal College of Paediatrics and Child Health of the United Kingdom, making a historical compilation on the indication and use of antidepressants in children and adolescents, recommended the use of antidepressant drugs only when there was no other alternative and when the use thereof was sufficiently justified<sup>156</sup>. In 2003, the Committee on Safety of Medicines (CSM) advised against the use of citalopram, escitalopram, fluvoxamine, paroxetine, sertraline, and venlafaxine for treating depression in people under the age of 18, and with respect to fluoxetine the Committee indicated that even though it was not recommended in the data sheet, the risk/benefit balance of this drug seemed favourable<sup>157</sup>.

In 2004, the Food and Drug Administration (FDA)<sup>158</sup> warned of a possible association between the consumption of antidepressants and an increase in suicide ideation or attempts in children and adolescents, which, together with a lack of decisive proof about the efficacy of pharmacological treatments, caused generalised apprehension when prescribing these antidepressants for this population group.

In 2005, the Committee on Human Medicinal Products of the European Medicines Agency (EMEA)<sup>159</sup> reviewed the paediatric use of SSRIs (selective serotonin reuptake inhibitors) and SNRIs (serotonin and norepinephrine reuptake inhibitors), and a greater frequency of hostility and suicidal attempts or thoughts was observed in comparison with placebo. However, this same body<sup>160</sup> concluded the following year that the benefits from using fluoxetine in treating depressed children aged eight or more exceeded the potential risks, which was subsequently confirmed<sup>161</sup>.

The recommendations issued by the Spanish Agency for Medicines and Healthcare Products (AEMPS) on the use of antidepressant drugs for treating major depression in children and adolescents indicate that neither SSRIs, with the possible exception of fluoxetine, nor venlafaxine should be used in children and adolescents under the age of 18. It also mentions the favourable risk/benefit balance of fluoxetine, although it points out the need to perform more studies to guarantee the safety of this drug in this population group<sup>162, 163</sup>.

In 2007, a new document from the U.S. Food and Drug Administration (FDA)<sup>164</sup> regarding suicidal ideation and behaviour in youths who are treated with antidepressant drugs pointed out that the available data are not sufficient for excluding any drug from an increase in the risk of self-injurious thoughts and behaviours, mainly at the start of treatment, and it authorises only fluoxetine as a drug for use in children and adolescents with major depression.

Table 17 provides a summary of the recommendations from different institutions regarding the use of antidepressants in children and adolescents.

INSTITUTION	RECOMMENDATION		
Royal College of Paediatrics and Child Health; 2000. United Kingdom.	- Use of antidepressants if there is no other alternative and if there is justified indication.		
Committee on Safety of Medicines (CSM); 2003. United Kingdom.	<ul> <li>Fluoxetine: favourable risk/benefit balance in children and adolescents under 18.</li> <li>The use of other antidepressants advised against.</li> </ul>		
Food and Drug Administration (FDA); 2004. USA. Food and Drug Administration (FDA); 2007. USA.	<ul> <li>Warns of a possible association between the use of antidepressants and an increase in self-injurious behaviour or ideation.</li> <li>Fluoxetine: the only authorised drug; the appearance of self-injurious behaviour cannot be ruled out to a greater extent when starting with any antidepressant drug.</li> </ul>		
Committee on Human Medicinal Products of the European Medicines Evaluation Agency (EMEA); 2005.	<ul> <li>Fluoxetine: benefit exceeds the potential risk.</li> <li>Warns of the possible increase of hostility and suicidal thoughts.</li> </ul>		
Spanish Agency for Medicines and Healthcare Products (AEMPS); 2005-06; Spain.	<ul> <li>Fluoxetine: favourable risk/benefit balance.</li> <li>Other antidepressants should not be used.</li> <li>More studies are necessary to guarantee safety.</li> </ul>		

Table 17. Use of antidepressants in major depression in children and adolescents

MD: major depression.

Source: own preparation.

## 6.2.2. Efficacy of different drugs

#### 6.2.2.1. MAOIs

The evidence of the efficacy of MAOIs in depression in children and adolescents is very limited<sup>165</sup>. There aren't sufficient studies that justify the use of MAOIs in clinical practice for depression in children and adolescents.

#### 6.2.2.2. Tricyclics

No outcomes have been observed that indicate any superiority of tricyclic antidepressants versus placebo in the treatment of depression in children and adolescents<sup>62, 64, 99, 165-167</sup>.

6.2.2.3. SSRIs

Fluoxetine

• Efficacy

It has been observed that fluoxetine (up to 40 mg per day for 7-12 weeks) is effective in patients between 7 and 18 years of age. Versus placebo, fluoxetine improves depressive symptoms and increases remission and the response to treatment, it has a positive impact on overall clinical improvement and on the severity of the depression, and there are no conclusive data about functional impact<sup>62</sup>.

The TADS study obtained comparative data on fluoxetine versus placebo at 12 weeks. After this follow-up period, fluoxetine (10-40 mg/day) obtained a response percentage of 61% versus the 35% of the placebo group<sup>126</sup>. Conversely, another study of a small sample size communicated similar responses between the placebo group and the group treated with fluoxetine<sup>168</sup>. Finally,

a meta-analysis published in 2008, in which three randomised clinical trials were combined, showed that fluoxetine produces statistically significant improvement that is two times greater than placebo<sup>169</sup>.

On the other hand, the efficacy of fluoxetine has been related to the severity of the illness, wherefore the clinical outcomes would be more favourable in patients with moderate or severe major depression<sup>169, 170</sup>, an important point when clinicians assess the most appropriate treatment.

#### • Adverse effects

The most frequently observed adverse effects were headache, sedation, insomnia, vomiting, abdominal pain, and occasionally skin rash and hyperkinesia<sup>62, 126, 171</sup>. The TADS study<sup>126</sup> also observed, in the group treated with fluoxetine, a greater frequency of other adverse effects such as euphoria, anxiety, agitation, and aggression towards self and others, although generally mild.

With respect to suicidal ideation, the NICE<sup>62</sup> guideline records greater suicidal ideation in the group treated with fluoxetine, although neither the percentages in both comparison groups nor the statistical significance between them are specified. In the TADS<sup>126</sup> trial, 27% of the patients initially showed suicidal ideation according to the CDRS-S scale and 29% according to the Suicidal Ideation Questionnaire-Junior High School version scale (SIQ-Jr). After 12 weeks of treatment, the score from these scales was reduced to 9.4% in the CDRS-S and 10.3% in the SIQ-Jr in the four treatment groups, with no statistically significant differences between them.

In the meta-analysis by Bridge *et al.*, no statistically significant differences of risk were observed, grouped between patients treated with placebo or with diverse antidepressants (fluoxetine, paroxetine, sertraline, citalopram, escitalopram, venlafaxine, and mirtazapine), wherefore it was concluded that regarding suicidal ideation and behaviour, the benefits that are obtained from antidepressant treatment seem to be greater than the risks<sup>172</sup>.

#### Paroxetine

The NICE guideline includes a study in which a dose of up to 40 mg/day of paroxetine for 8-12 weeks increases the likelihood of remission in patients from 12 to 18 years of age. Subsequent studies have pointed out that this drug seems to have little impact on depressive symptoms or on the functional state. Thus, there seem to be no significant differences between the groups treated with paroxetine and placebo, with clinical response rates of 49-67% for paroxetine and 46-58% for placebo<sup>99, 166, 171, 173</sup>.

In these studies, paroxetine had more side effects than placebo, which consisted of hostility, sleep disorders, tremors, headache, nausea, and dizziness<sup>62, 171, 173, 174</sup>.

#### Sertraline

Sertraline, in comparison with placebo, seems to show a moderate degree of efficacy in adolescents, but not in children. Thus, Wagner<sup>175</sup> et al. observed a significant reduction in the severity scores of the symptoms of the depressive disorder according to the CDRS-R scale in the adolescent subgroup, but not in children.

Regarding the appearance of adverse effects, the appearance of nausea is recorded, and to a lesser extent diarrhoea and vomitting<sup>62,171</sup>, which could favour early abandonment from treatment, although significant differences compared with placebo have not been found<sup>171</sup>.

#### Citalopram

One trial with citalopram (up to 40 mg/day for 8 weeks) in children and adolescents from 7 to 17 years of age with major depression showed significant improvement in the depressive symptoms measured according to the CDRS-R<sup>176</sup> scale, while in another study<sup>177</sup> no differences between treatment groups were observed in the scores obtained using the Schedule for Affective Disorders and Schizophrenia for school-aged children-Present episode version (K-SADS-P) and the Montgomery Asberg Depression Rating Scale (MADRS). Usala *et al.*, after combining the outcomes of these two studies in a meta-analysis, observed a moderate degree of efficacy of citalopram in the treatment of major depression in children and adolescents<sup>169</sup>, although it was non-significant.

The most frequently cited adverse effects were headache, rhinitis, nausea, diarrhoea, and insomnia<sup>62, 171, 173</sup>.

#### Escitalopram

Studies on this drug are scarce. In the study by Wagner et al., it was observed that 10-20 mg of escitalopram per day for eight weeks in patients from 6-17 years of age did not cause significant changes in the Children's Depression Rating Scale-Revised (CDRS-R), although when analysed by age subgroups, escitalopram was effective in the adolescent group (12-17 years) but not in the children group (6-11 years). The most frequent adverse effects in this study were headache (23%) and abdominal pain (11%), although significant differences with the placebo group were not found.

Drug**	Initial dose (mg/day)	Weekly increase (mg)	Effective dose (mg)	Maximum dose in CT (mg)
Fluoxetine	10	10-20	20	60
Sertraline	25	12.5-25	50	200
Citalopram	10	10	20	60
Escitalopram	5	5	10	20

#### **Table 18.** Usual doses of SSRIs\* in major depression in children and adolescents

CT: clinical trial.

\* The doses given are approximates. All the doses have to be individualised, and there must be rigorous follow-up by a mental health specialist. In general, treatment should be started with low doses and should be increased progressively. \*\* Morning administration is usually recommended. Source: own preparation.

Fluoxetine is the only drug authorised by the FDA and the AEMPS for treating depression in children and adolescents, and it must therefore be considered the drug of choice but not the only one that has been shown to be effective. All other SSRIs, except for paroxetine, could also be considered as alternatives to fluoxetine. The physician is the one who must choose the drug, thereby considering the clinical profile of the patient (clinical characteristics of depression, family history, and previous response to specific drugs in family members).

#### 6.2.2.4. SNRI: venlafaxine

The outcomes of the few existing studies that compare venlafaxine with placebo are not conclusive, and thus the administration of up to 225 mg per day for 8 weeks seems to produce a small improvement in remission rates, in the response to treatment, or in the functional state<sup>62</sup>. In turn, other studies find no such diffrences<sup>64, 99</sup>, although when analysed by age subgroups, better outcomes in adolescents than in children<sup>64</sup> were observed, wherefore some experts do not advise against this treatment as an alternative when there has been no response to SSRIs.

The main adverse effects of venlafaxine were nausea, anorexia, hypertension, and tachycardia<sup>62, 64, 99, 173</sup>.

#### 6.2.2.5. Pre-synaptic alpha 2 antagonist: mirtazapine

In two clinical trials, no differences were observed between treatment with mirtazapine (15-45 mg per day, 8 weeks) or placebo with respect to reducing depressive symptoms in children or adolescents<sup>62, 99</sup>. Regarding the appearance of adverse effects, mirtazapine can increase appetite and body weight and cause drowsiness<sup>62</sup>.

#### 6.2.3. Relapse prevention

No randomised clinical trials that covered the prevention of relapses were found in the guideline prepared by NICE<sup>62</sup>, wherefore it is advisable to follow the clinical practice performed on adults. In this regard, adolescents who respond to antidepressant medication should continue with treatment for 6 months after clinical remission. Likewise, the gradual withdrawal of treatment is recommended (over 6-12 weeks), although the evidence on which this is based is not clear<sup>62, 174</sup>.

The study by Emslie *et al.* carried out on children and adolescents covers the prevention of relapses after treatment with fluoxetine, and it is observed that, after 36 weeks of follow-up, 42% of those treated with fluoxetine suffered relapses, while 69% of those treated with placebo<sup>179</sup> suffered relapses.

In brief, of the different antidepressant drugs that exist, SSRIs seem to be the only ones that are effective, and fluoxetine seems to be the only one that can be recommended for initial treatment. The possible appearance of self-injurious ideation and behaviour makes it necessary to monitor the patient, especially at the start of treatment, although it must be taken into account that the benefits that are obtained with antidepressive treatment seem to outweigh the risks.

#### Summary of the evidence

Psycho	therapy				
	Individual CBT:				
1++ 1+	- In the short term, it was not significantly different than placebo in patients with moderate-severe depression (126). Versus sertraline (50 mg) (128), individual CBT obtained a better response than pharmacological treatment in a group of patients with mild-moderate depression.				
1++	- In the long term, CBT obtained response rates similar to fluoxetine and also similar to the combination of fluoxetine and CBT (127).				
	Group CBT:				
1⁺	<ul> <li>In the short term (8 weeks), group CBT is effective treatment with respect to reducing symptoms in comparison with the following: wait list, no treatment, and usual care (62). Versus other interventions such as relaxation, skill training, self- modelling, and problem-solving, there is no conclusive evidence that group CBT is more effective.</li> </ul>				
4.	IPT-A:				
1⁺	- There is evidence that IPT is more efficacious when compared with wait list or usual care (62).				
	Individual psychodynamic therapy:				
2⁺	- Only one study in which it was compared with FT was included, and it obtained similar rates of efficacy. The evidence on individual psychodynamic therapy is not conclusive (151).				
	Family therapy:				
1⁺	- There is evidence that FT is more efficacious in comparison with a wait-list control group (62).				
<b>1</b> +	- Versus individual CBT and supportive therapy, FT was superior at reducing family conflicts (62).				
2⁺	- Versus individual psychodynamic therapy, FT obtained similar efficacy results, with good maintenance of outcomes over time (151).				
2⁺	- FT obtained remission rates similar to efficacy studies of CBT or IPT (154).				
1++	<b>Relapse prevention:</b> - Continuation and booster sessions after psychotherapy with CBT increase the response to treatment and reduce the possibility of relapses (127).				
Pharm	acological treatment				
1++	Among the various antidepressant drugs that exist, SSRIs have proved to be the most effective at treating depression in children and adolescents (62, 165, 169).				
1++	Among SSRIs, fluoxetine is the only drug that has proved to be effective and that is authorised for treating major depression in children and adolescents (62, 126, 168, 169).				
1+	In adolescents, sertraline, citalopram, and escitalopram have demonstrated efficacy (173, 175-178).				
1++	The efficacy of fluoxetine is related to the degree of severity of the illness, wherefore clinical outcomes are more favourable in patients with moderate or severe depression (126, 170).				
1⁺	The adverse effects of treating depression with SSRIs are not usually severe. The most frequent are the appearance of headaches, nausea, irritability, anxiety, and alterations of sleep and appetite (62, 64, 99, 126, 171, 173, 174, 178).				
1++	During the initial weeks of treatment with antidepressants in children and adolescents, the appearance of self-injurious ideation and behaviour is possible, although an increase in completed suicides has not been demonstrated (62, 126, 172).				
1⁺	Regarding suicidal ideation and behaviour, the benefits that are obtained with antidepressive treatment (fluoxetine) are greater than the risks (172).				

#### Recommendations

General recommendations				
<ul> <li>The treatment of depression in childhood and in adolescence must be comprehensive, and it must cover those psychotherap pharmacological, and/or psychosocial interventions that could improve well-being and functional capacity.</li> </ul>				
<ul> <li>The management of depression should always include standard clinical care, which is understood as psychoeducation, indiv and family support, problem-solving techniques, coordination with other professionals, attention to other comorbidities, regular monitoring of the mental state.</li> </ul>				
1	Regardless of the therapy used, a solid therapeutic alliance must always be established, and specific techniques must be used for childhood and adolescence, in addition to the fact that parents must be included as a fundamental part of the therapeutic process.			

Mild m	ajor				
D <sup>GPC</sup>	In children and adolescents with mild major depression and in the absence of risk factors, self-injurious ideas/behaviours, and comorbidities, the family physician or paediatrician could allow a two-week period to elapse for observation and follow-up on evolution.				
D	During this period, the primary care professional should provide active support for the child or adolescent and their family, thereby facilitating guidelines for healthy life habits, psychoeducational guidelines, or guidelines for handling situations.				
1	If the depressive symptoms persist after this observation period, it is advisable to refer the patient to specialised care on child and adolescent mental health.				
1	Those patients with depression who present self-injurious ideation or behaviours, risk factors, or serious comorbidities such as substance abuse or another mental pathology should be initially referred to child and adolescent mental healthcare, even though the degree of the depression may be mild.				
В	In specialised care on child and adolescent mental health, the treatment of choice for mild major depression will be psychological therapy for a period of 8 to 12 weeks (weekly sessions).				
В	The initially recommended modes of psychotherapy for mild major depression are cognitive behavioural therapy, family therapy, or interpersonal therapy.				
DGPC	During this period of psychological therapy, there must be regular follow-up on the clinical evolution of the child or adolescent.				
В	In general, the use of antidepressant drugs is not recommended for initially treating children and adolescents with mild depression.				
Moder	ate and severe major depression				
В	All children or adolescents with moderate/severe major depression should be initially referred to child and adolescent mental healthcare.				
В	Whenever possible, adolescents with moderate depression will be initially treated using psychotherapy for at least 8 to 12 weeks (minimum of 1 session per week).Cognitive behavioural therapy and interpersonal or family therapy are psychotherapeutic modes that have demonstrated the best outcomes.				
В	For severe depression in adolescents, it is recommended that psychotherapy be used initially (cognitive behavioural therapy), together with pharmacological treatment (fluoxetine). In individualised cases, pharmacological treatment alone could be used, always associated with standard clinical care.				
В	Combined treatment using fluoxetine and cognitive behavioural therapy is especially recommended in cases in which there is a personal or family history of suicidal ideation and/or behaviour.				
1	In children under 12 years of age, cognitive behavioural therapy or family therapy is initially recommended. If it is impossible to apply or if the evolution is poor, adding pharmacological treatment (fluoxetine) is recommended.				
1	Before initiating pharmacological treatment with antidepressants, it is advisable to inform about the reasons for the prescription, the expected benefits, the possible delay of any therapeutic effect, the secondary effects, and the duration of the treatment.				
A	Even though an increase in suicides committed by children and adolescents has not been demonstrated, monitoring the possible appearance of adverse effects is recommended, especially suicidal ideation or behaviour, above all during the first four weeks of pharmacological treatment.				
A	The only antidepressant drugs that are recommendable for treating moderate or severe depression in children or adolescents are SSRIs. Fluoxetine is the drug with the most trials that support its use in these age groups.				

1	According to the patient's clinical profile (clinical characteristics of depression, family history, and history of prior response in family members), another SSRI could be selected (sertraline, citalopram, or escitalopram).					
D	After remission of the depressive symptoms, it is recommended that pharmacological treatment with an SSRI continue for at least 6 months (recommendable between 6 and 12 months) as from remission of the depressive symptoms, with the same dose at which remission was achieved.					
D	It is advisable that the use of an antidepressant drug be suspended gradually. If symptoms reappear, pharmacological treatment should be re-initiated.					
В	Current evidence does not allow recommending the use of tricyclic antidepressants, paroxetine, venlafaxine, or mirtazapine for treating major depression in children and adolescents.					
1	<ul> <li>Hospitalisation of children or adolescents with major depression should be considered:         <ul> <li>if there is a high risk of suicide.</li> <li>if the depression is severe and is accompanied by psychotic symptoms.</li> <li>when serious comorbidities are associated.</li> <li>when there are reasons that make it difficult to ensure suitable outpatient monitoring and control.</li> </ul> </li> </ul>					

# 7. Combined treatment and strategies for resistant depression

#### **Questions to be answered:**

- What is the role of combined treatment in major depression in children and adolescents?
- What strategies can be followed for resistant depression?
- What is the efficacy of and what are the indications for electroconvulsive therapy in major depression in children and adolescents?

## 7.1. Combined treatment of major depression

## 7.1.1. The TADS study

In 1999, the National Institute of Mental Health (NIMH) financed the TADS study (Treatment for Adolescents with Depression Study), which was carried out at 13 academic centres of the United States, with a sample of 439 adolescents between 12 and 17 years of age who were diagnosed with major depression (DSM-IV), the majority with one or more comorbidities<sup>180</sup>. The design was that of a controlled and random trial, and the main purpose was to assess the short- and long-term efficacy (12 and 36 weeks, respectively) of treatment with fluoxetine, with cognitive behavioural therapy, or with a combination of them both, all compared with placebo<sup>181</sup>.

After 12 weeks of treatment, it was observed that the combination of fluoxetine and CBT generated a significant clinical improvement in 71% of the adolescent patients with moderate to severe depression by assessment according to the CDRS-R scale. For the other treatment groups, the response percentages were 61% for fluoxetine, 43% for CBT, and 34% for the placebo group<sup>126</sup>. Combined treatment also had better outcomes than the rest of the treatments according to the CGI-I scale (Clinical Global Impressions-Improvement) and the K-SADS-P/L (Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version), and in the assessment of the functional state (according to the CGAS, Children's Global Assessment Scale), assessment of the overall disease burden (according to the HoNOSCA, Health of the Nation Outcome Scales), and assessment of quality of life (according to the PQLES-Q, Pediatric Quality of Life Enjoyment and Satisfaction Questionnaire)<sup>182</sup>.

At the start of the study, between 27% and 29% of the patients showed suicidal ideation according to the CDRS-S and SIQ-Jr scales, which was reduced in all treatment groups, although it was reduced significantly only in combined therapy<sup>126</sup>. In the TADS study, it was also observed that combined treatment was especially effective in adolescents with a moderate degree of depression and with the presence of depressive cognitive distortions, while at the highest levels of severity adding CBT to fluoxetine did not represent a significant benefit in the treatment in the short term, or at low levels of cognitive distortion<sup>170</sup>.

With the short-term outcomes obtained by the TADS study, its authors recommended (as in the NICE guideline) that fluoxetine be used for cases of moderate-severe depression, and they placed special emphasis on monitoring any possible adverse effects. It was also recommended that CBT be given greater accessibility, basically for those adolescents with a personal or family history of suicide, due to the possible benefit of adding CBT to fluoxetine in order to prevent suicidal behaviour<sup>183</sup>.

At 36 weeks of treatment<sup>127</sup>, a convergence of results was observed, with clinical improvement in the three treatment groups, although the treatment with fluoxetine alone or in combination with CBT produced faster improvement than CBT alone. Regarding suicidal ideation and behaviour, they were especially reduced with combined therapy or CBT. Acts with suicidal intent were more frequent in patients who took fluoxetine alone (15%) than in those who underwent CBT (6%) or combined therapy (8%), which could indicate that CBT has a protective effect or that it could increase the patient's safety.

With respect to maintaining the outcomes over time, combined treatment obtained the best outcomes at 12 weeks, while at 36 weeks this percentage was similar in all groups, which would suggest the importance of maintaining the treatments over time.

In brief, the TADS study concludes that in adolescents with moderate to severe depression, the use of fluoxetine alone or in combination with CBT appears to accelerate the clinical response, and complementing the medication with cognitive behavioural therapy could increase the patient's safety by reducing suicidal intent. The risk/benefit balance of the combined treatment scheme seems to be superior than monotherapy, either with fluoxetine or with CBT.

## 7.1.2. The ADAPT study

The ADAPT study (Adolescent Depression Antidepressant and Psychotherapy Trial)<sup>184</sup> was a multicentre randomised controlled trial carried out at six mental health centres in Manchester and Cambridge (Child and Adolescent Mental Health Services, CAMHS). The sample included 208 adolescents of between 11 and 17 years of age who were diagnosed with or were likely to present moderate or severe major depression. The authors excluded anyone who was being treated with antidepressants or who, due to their clinical conditions, required immediate treatment.

Before being included in the study, the patients were offered a brief psychoeducational intervention, as long as they had not already had it before. If no improvement occurred, the participants were randomised in the SSRI group or SSRI + CBT group for 12 weeks, followed by a maintenance phase of 16 weeks. The selected SSRI was fluoxetine, with an initial dose of 10 mg/ day, which was increased to 20 mg/day if it was well tolerated, and if necessary up to a maximum of 60 mg/day. The psychotherapeutic treatment consisted of 12 sessions of CBT (once a week), followed by maintenance sessions every 15 days and a final session at 28 weeks (total of 19 sessions). Moreover, all patients received the usual care (regular monitoring of their mental state, psychoeducation, support measures for both the adolescents and their families, problem-solving techniques, care of possible comorbidities, and coordination with other professionals such as teachers or social workers).

The main measure of the outcome was the changes produced in the HoNOSCA scale for children and adolescents. Both groups showed considerable improvements, and no differences between them were observed at 28 weeks of treatment. Moreover, no differences were observed between the groups when assessing the results of the secondary variables of the CDRS-R, CGAS, and MFQ (Mood and Feelings Questionnaire), and this absence of differences was maintained after adjusting the data for age, sex, severity, comorbidities, and the quality and duration of the psychotherapeutic treatment received.

The response percentage obtained by this study at 12 weeks was 40%, somewhat lower than what was observed in other studies, which could be due to excluding those patients who responded to brief psychoeducational intervention. At 28 weeks, the response rate was close to 60%.

The ADAPT study concluded the following:

- A brief, prior psychoeducational intervention of two weeks' duration could be effective in a proportion of the adolescents referred to specialised mental health service for moderate-severe major depression.
- SSRIs, specifically fluoxetine, together with the usual standard care, would be the treatment of choice in adolescents who had moderate or severe major depression and who did not respond to the initial psychoeducational intervention.
- Standard care plus fluoxetine, whether or not it is associated with CBT, produces consistent clinical improvement at reducing suicidal symptoms, ideation, or behaviour, and also an improvement of the psychosocial function.
- The clinical response to treatment can take up to two weeks in some patients. After seven months of treatment, only one out of 10 adolescents showed a minimum or no response to treatment with fluoxetine.
- Combined therapy of fluoxetine and CBT is not associated with an increase in suicidal ideation or behaviour.
- There is no evidence that CBT added to treatment with fluoxetine may have a protective effect against suicidal behaviour.
- If standard clinical care is given, the likelihood that the disinhibition syndrome produced by fluoxetine might increase self-injuries or violence towards others is insignificant.

### 7.1.3. Other studies

One study carried out with 152 adolescents with major depression was designed for the purpose of verifying the effect of a CBT programme (5-9 sessions of individual CBT) added to the usual primary care. A group that received the usual care and SSRI was compared with another group that additionally received CBT. Follow-up was performed 52 weeks after the start of the intervention, and according to the CES-D a slightly favourable trend was found, although not significant, towards the group that received CBT, and adolescents with moderate depression were those that benefited the most from intervention with CBT. No differences were found between the groups with respect to the recovery rates at follow-up<sup>185</sup>.

Melvin *et al.* (2006)<sup>128</sup> performed a randomised controlled trial for the purpose of evaluating CBT (12 sessions of 50 minutes each on a weekly basis), sertraline (25 mg/day for one week, which could be increased up to 50 mg/day), and the combination of both treatments. The sample included 73 adolescents of between 12 and 18 years of age with mild-moderate major depression, dysthymia, or other, non-specified depressive disorders according to DSM-IV criteria, and those adolescents with suicidal behaviour or ideation at the time of the study were excluded. After 12 weeks of treatment, the outcomes obtained by the combined group were no different from those obtained by the CBT group or the sertraline group alone. The response obtained with CBT was significantly better than that of the sertraline group, although aspects such as the low dose of the drug used or being a patient with mild-moderate major depression would have to be taken into account, wherefore these outcomes in favour of CBT should be interpreted with caution.

While considering the limitations of this study, both CBT and sertraline could be recommended for the treatment of major depression, given that they show an equal response percentage. After short-term treatment, the three groups showed improvements in the outcome measures, which were maintained six months afterwards. The evidence does not support the hypothesis that combined therapy was superior to the treatments performed separately (Table 19).

Study	Population	Duration	Treatment	Type of depression	Outcomes
Clarke et al. (2005) (185)	152 adolescents. 12-18 years old.	52 weeks	<ul> <li>Usual treatment + SSRI.</li> <li>CBT (5-9 sessions) + usual treatment + SSRI.</li> </ul>	Moderate- severe MD.	Slight favourable tendency towards the group that received CBT. No difference was found between the groups with respect to the recovery rates in follow-up.
Melvin et al. (2006) (128)	73 adolescents. 12-18 years old.	12 weeks	<ul> <li>CBT (12 sessions) –</li> <li>Sertraline (25 mg/ day, up to 50 mg/ day).</li> <li>Combined treatment.</li> </ul>	Mild- moderate MD.	Combined treatment had the same outcome as the CBT group or the sertraline group. CBT group better than the sertraline group.
Riggs et al. (2007) (186)	126 adolescents. 13-19 years old.	16 weeks	<ul> <li>Fluoxetine (20 mg/ day)</li> <li>+ CBT.</li> <li>- Placebo + CBT.</li> </ul>	Moderate- severe MD.	<ul> <li>CDRS: fluoxetine + CBT more efficacious.</li> <li>CGI: no changes.</li> </ul>
TADS (2007)(127)	439 adolescents. 12-17 years old.	36 weeks	<ul> <li>Fluoxetine (20 mg/ day, up to 40 mg/ day)</li> <li>CBT (15 sessions) – Combined treatment</li> </ul>	Moderate- severe MD.	12 weeks: Combined treatment better than fluoxetine, CBT, or placebo. 36 weeks: convergence of outcomes between fluoxetine, CBT, and combined treatment.
ADAPT (2007)(184)	208 adolescents. 11-17 years old.	28 weeks	<ul> <li>Fluoxetine (20 mg/ day, up to 60 mg/ day)</li> <li>Fluoxetine + CBT (12 sessions)</li> </ul>	Moderate- severe MD.	No significant differences between the fluoxetine group or the fluoxetine plus CBT group.

Table 19. Summary of outcomes obtained by combined treatment studies

Source: own preparation.

The objective of the trial carried out by Riggs *et al.*  $(2007)^{186}$  was to assess the effect of a daily, 20-mg dose of fluoxetine versus placebo in 126 adolescents who had major depression (moderate-severe), disorders due to substance abuse, and behavioural problems. The authors excluded patients at a high risk of suicide.

Both treatment groups (fluoxetine or placebo) received weekly CBT sessions. Before or after the sessions, a nurse controlled adherence and the appearance of adverse effects, and the main outcome variables were the scores obtained according to the CDRS-R and CGI-I scales. After 16 weeks of treatment, fluoxetine + CBT was significantly more effective than placebo + CBT according to the CDRS scale, but not according to the CGI scale, where the results between both groups were similar. In both groups, there was a decrease in the consumption of substances and a decrease in behavioural disorders, although the differences between them both were not statistically significant.

## 7.2. Strategies for resistant depression

Despite the proven efficacy of treatment with SSRIs, psychotherapy, or both, in major depression in children and adolescents at least 40% of these patients do not show an adequate response, and only one third show complete clinical remission<sup>187, 188</sup>. There is no agreed definition about when the depression of a child or adolescent should be considered resistant. Following the criteria of depression in an adult, we could define it as depression that does not improve after two or more trials using drugs with verified antidepressive action, administered at therapeutic doses and for adequate time.

It is necessary to differentiate between the concept of resistant depression and those patients who do not respond to a first, initial treatment, which are patients who show no clinical improvement after a single trial of treatment, either pharmacological of psychotherapeutic. In these cases, the presence of the factors shown in Table 20 should always be checked.

## Table 20. Main factors to be checked in the event of no therapeutic response to the treatment depression

- Review of the diagnosis.

- Use of the maximum, effective dose of a therapeutic drug for a suitable period.
- Review of the duration of psychotherapy and of maintained exposure to stressful life factors.
- Emphasis on awareness of the illness, motivation for change, and adherence to treatment.
- Review of a possible comorbidity with other medical illnesses or mental disorders: anxiety, dysthymia, abuse of addictive substances, or
  personality disorders.

Source: own preparation.

One possible therapeutic option in the event of depressions that do not respond to treatment would be referring a child/adolescent to a psychiatric day hospital, which is an intermediate level between outpatient treatment and hospital treatment. Severe depression accompanied by another type of psychopathology (personality problems, family dysfunction, school maladjustment, etc.) would be an indication for intensive treatment from these types of centres. However, it must be taken into account that even though this healthcare resource has been growing significantly in recent years, it is not yet available in all health services of the Spanish autonomous communities.

Clinical trials performed on children or adolescents with resistant depression are not available, and studies that cover the guidelines that should be followed when there are depressive symptoms that do not respond to initial treatment are scarce. The only multicentre randomised controlled trial is the TORDIA study<sup>189</sup>. Its objective was to assess the efficacy of drug treatment, psychotherapy, or the combination of them both on adolescent patients who did not respond to initial treatment using an SSRI. This study included 334 adolescents from 12-18 years of age with moderate-severe major depression that was resistant to treatment using an SSRI during the last eight weeks (at least during the last four weeks, they should have received 40 mg of fluoxetine per day or its equivalent: 40 mg of paroxetine, 40 mg of citalopram, 20 mg of escitalopram, or 150 mg of sertraline). Those participants with two or more prior attempts at treatment using an SSRI or with a history of no response to venlafaxine or to CBT were excluded. Those participants who were receiving CBT at that time were excluded, but not those who were receiving or had been receiving other modes of individual psychotherapy.

The participants were randomised to one of four treatments, with a duration of 12 weeks: 1) switching to a second SSRI; 2) switching to venlafaxine; 3) switching to a second SSRI + CBT; 4) switching to venlafaxine + CBT. The doses of the SSRIs were the following: an initial dose of 10 mg per day for the first week and 20 mg/day during weeks 2 to 6, with the option of increasing the dose up to 40 mg/day if clinical improvement was insufficient. The dose of venlafaxine was 37.5 mg during the first week, and it was progressively increased up to 150 mg in the fourth week, with the option of increasing it up to 225 mg in the sixth week. The CBT was performed by expert professionals, thereby emphasising cognitive restructuring and behavioural activation, the regulation of emotions, social skills, and problem-solving, with joint sessions between parents and children to improve support, decrease criticism, and increase communication and problem-solving. A weekly session of 60-80 minutes was held for 12 weeks, of which 3 to 6 were family sessions.

The primary outcome variables were changes in the Clinical Global Impressions-Improvement (CGI-I) scale and the Children's Depression Rating Scale-Revised (CDRS-R). For the secondary

variables, the Beck Depression Inventory (BDI), the Suicidal Ideation Questionnaire-Junior High School version (SIQ-Jr), and the Children's Global Adjustment Scale (CGAS) were used.

The option of combining CBT with another drug (either a second SSRI or venlafaxine) obtained a higher response percentage than only switching to another drug (55% versus 41%), wherefore the difference between both groups was statistically significant. Nevertheless, the response rates between switching to a second SSRI or to venlafaxine were similar (48% versus 47%). In both cases, no differences were observed in the outcomes obtained in the CGI-I and CDRS-R scales, or in the BDI and SIQ-Jr questionnaires.

There were significant differences in the response to treatment by the CBT group according to the place where the treatment was carried out, while such differences were not observed with the pharmacological treatment. A greater percentage of patients with diastolic hypertension, tachycardia, and dermatological problems was observed in the group treated with venlafaxine than in the group treated with an SSRI. It was not observed that combined treatment improved the suicidal ideation and behaviour rate in comparison with medication alone.

It should be kept in mind that in this study, only adolescents with major depression who did not respond to prior treatment with an SSRI were included, and not just patients who did not respond to fluoxetine but also other SSRIs (paroxetine, citalopram, escitalopram, and sertraline). The authors considered all these drugs to have equal efficacy, while it has been observed that the efficacy of paroxetine is not demonstrated and that the efficacy obtained by citalopram, escitalopram, and sertraline is below that of fluoxetine, wherefore only patients receiving treatment with fluoxetine could be labelled as non-responders.

## 7.3. Electroconvulsive therapy

Electroconvulsive therapy (ECT) consists of inducing generalised seizure activity, for a therapeutic purpose, through electrical stimulation of the central nervous system. It is not a usual practice in children and adolescents, and its use is controversial in this age group<sup>62, 119, 190</sup>.

There are no studies of good methodological quality that assess the efficacy of ECT in this age group<sup>62, 190</sup>. The information coming from open retrospective studies and from case series indicate an improvement rate of between 60-80% for major depression<sup>191</sup>, and even a response rate of 100%, although these studies also included comorbidities together with the major depressive disorder<sup>192</sup>.

The NICE<sup>62</sup> guideline includes a series of practical parameters for using ECT in adolescents, which were proposed by the American Academy of Child and Adolescent Psychiatry (AACAP) in 2002. This same body, in a publication in 2004<sup>192</sup>, indicates that before an adolescent is considered for ECT, the following should be present:

- 1. Diagnosis: severe, persistent major depression or mania, with or without psychotic symptoms, the schizo-affective disorder, or, less frequently, schizophrenia.
- **2.** Severity of the symptoms: the patient's symptoms must be severe, persistent, and significantly debilitating, or they must put their life in danger, such as refusing to eat or drink, a high risk of suicide, mania, and severe psychoses.
- **3.** Lack of response to treatment with at least two pharmacological attempts accompanied by other modes of adequate treatment. ECT could be considered early in the following cases:
  - a. The attempts with adequate medication were not possible due to intolerance to pharmacological treatment by the patient.

- b. The adolescent has major, general affectation that prevents the medication from being taken.
- c. Waiting for a response to psychopharmacological treatment could put the adolescent's life in danger.

#### Adverse effects

Studies on children and adolescents have rarely reported adverse effects<sup>190</sup>, and no study that contributed evidence regarding the impact by ECT on cerebral development was found. The effects could be the same as in adults, and it could cause retrograde and anteretrograde amnesia. In some cases, it is difficult to differentiate the effects of ECT from the symptoms of the illness itself<sup>62</sup>. Prolonged epilepsy can also occur, and there are risks associated with general anaesthesia. Other, less serious adverse effects could be the following: headache, nausea, vomiting, muscle pain, confusion, and agitation, which do not usually persist beyond the day when treatment is given. In adults, the mortality rate associated with ECT is 2.2/10,000, and the mortality rate associated with anaesthesia is 1.1/10,000. It is thought that in adolescents there is no additional rate of risk for ECT or an increased risk in complications related to anaesthesia during the immediate recovery period<sup>192</sup>.

Nevertheless, the NICE report on ECT published in 2003<sup>193</sup> reports that the risks could be greater in children and adolescents, and therefore doctors should be particularly cautious when considering this treatment in this age group.

#### Contraindications

Even though there is insufficient data, the available literature demonstrates contraindications similar to those found in adults. They include the following: tumours of the central nervous system associated with intracranial hypertension, serious respiratory infection, and a recent myocardial infarction<sup>192</sup>.

#### Summary of the evidence

Combined treatment		
	TADS study (126, 127, 170, 180-183)	
1++	<ul> <li>Combined treatment turned out to be especially effective in moderate major depression. In severe depression, the combination of CBT and fluoxetine did not represent a significant benefit versus fluoxetine alone in the treatment at 12 weeks.</li> </ul>	
	In the long term, a convergence of results was observed, with considerable improvement percentages in the three treatment groups, although the treatment with fluoxetine alone or in combination with CBT produced faster improvement than CBT alone. Patients treated with fluoxetine alone were twice as likely to show suicidal behaviour than those who also received CBT, which could indicate that CBT has a protective effect or that it increases patient safety.	
	– Combined treatment obtained the best maintenance outcome over time. The fact that fluoxetine obtains better outcomes than CBT in the short term but not in obtaining a sustained response indicates the importance of maintaining long-term psychotherapeutic treatment.	
1	The ADAPT study (184)	
	<ul> <li>Adding CBT to drug treatment does not improve the clinical variables in adolescents with moderate or severe major depression, and no differences were observed between treatment groups according to the HoNOSCA, CDRS-R, MFQ, and CGAS scales.</li> </ul>	
	- SSRIs, specifically fluoxetine, together with the usual standard care, are a reasonable option for treating adolescents with moderate or severe major depression.	
	- The clinical response to treatment can take up to two weeks in some patients. After seven months of treatment, only one out of 10 adolescents showed a small or no response to treatment with fluoxetine.	
	– Combined fluoxetine and CBT therapy was not associated with an increase in suicidal ideation or behaviour, and it was not found that adding CBT to treatment with fluoxetine had a protective effect on suicidal behaviour.	
	<ul> <li>If standard clinical care is given, the likelihood that the disinhibition syndrome produced by fluoxetine might increase self-injuries or violence towards others is almost unnoticeable.</li> </ul>	
Strate	jies for resistant depression	
1+	TORDIA study (189)	
	– In adolescents with moderate-severe depression who do not respond to initial treatment with an SSRI, the combination of CBT and switching to another antidepressant shows a greater likelihood of a response than only switching antidepressants.	
	<ul> <li>The effectiveness of switching to a second SSRI was similar to switching to venlafaxine, although with fewer adverse effects.</li> </ul>	
Electro	convulsive therapy	
2+	The evidence of the efficacy of ECT in major depression in adolescents is limited due to a lack of controlled studies. Case studies suggest that it could be effective in certain situations of major depression in adolescents. There is no evidence on pre-adolescent children (62, 190, 192).	
2⁺	The most frequent secondary effect of ECT is the loss of memory. The effects that it could have on a developing brain are unknown (62, 190, 192).	
2⁺	ECT is an intervention that is reserved only for patients who have severe and persistent symptomatology and who have not responded to another type of treatment or in whom there is a situation of a serious threat to their lives (62, 192).	

#### Recommendations

1	With a patient who does not improve after initiating treatment, it is advisable to review the diagnosis and verify compliance with the therapy. Whenever treatment is pharmacological, it must be confirmed that the drug is being taken at the appropriate time and in the appropriate dose.
1	When a patient does not improve after psychological treatment, it must be verified that the suitable time and number of sessions have been given.
В	For patients with moderate major depression who do not respond to specific psychological therapy, it is advisable to combine cognitive behavioural therapy with pharmacological treatment from the SSRI group.
1	If there is a response to treatment, it should be continued for at least six months (recommendable between 6 and 12 months) after remission of the depressive symptoms.
В	For adolescents with moderate-severe depression who do not respond to initial treatment with an SSRI, it is advisable to combine cognitive behavioural therapy with switching to another antidepressant of the SSRI group.
C	Electroconvulsive therapy will be indicated for adolescents who have severe and persistent major depression and who have severe symptoms that place their lives in danger or who do not respond to other treatments.
C	The use of electroconvulsive therapy in adolescents should be exceptional and be given by an experienced professional (child and adolescent psychiatrist) after a physical and psychiatric assessment and in a hospital environment.

# 8. Other therapeutic interventions

#### **Questions to be answered:**

- Are self-help techniques and other alternative treatments effective at treating depression in children and adolescents?
- Is physical exercise effective at reducing symptoms in children and adolescents with major depression?
- Are family, social, and environmental interventions effective?

## 8.1. Self-help techniques

The objective of self-help is to give patients knowledge and skills that help them to overcome or manage their health problems, with minimum participation by a therapist<sup>194</sup>. It includes the use of written materials (bibliotherapy, informative brochures), computer programmes, material recorded in audio/video, or web pages that may help to modify attitudes and behaviours and succeed in solving or improving problems. Written self-help material for depression in childhood and in adolescence is scarce<sup>195</sup>.

Guided self-help is a more complete mode that uses self-help material, but it adds minimum orientation by a professional, who monitors progress, clarifies procedures, responds to general questions, and provides support or stimulus in follow-up on the self-help recommendations<sup>194</sup>. The NICE<sup>62</sup> guideline includes a small trial on guided self-help, and it clearly shows that this therapy can improve depressive symptoms when compared with a wait-list control group (for 4 weeks).

## 8.1.1. Bibliotherapy and the use of self-help materials

Jorm *et al.*<sup>196</sup> performed a systematic review in which the efficacy of different self-help techniques and of other interventions in childhood and adolescent depression was assessed. The authors excluded all low-quality studies, such as case series and expert opinions. With respect to bibliotherapy, they included only one study with a small sample size that was performed on adolescents with depression, in which it was observed that bibliotherapy reduced dysfunctional thoughts but not automatic thoughts<sup>197</sup>.

Ahmead and Bower<sup>198</sup> performed a systematic review and a meta-analysis for the purpose of determining the efficacy of different self-help techniques for treating different ranges of severity of depression and anxiety in adolescents from 12-25 years of age. They included 6 RCTs and 8 quasi-experimental studies of low methodological quality. The self-help materials consisted of computer programmes (four studies), bibliotherapy (eight studies), and audio or video recordings (two studies). No significant changes were observed in the patients' self-esteem, in social cognition (self-efficacy and locus of control), or in emotional symptoms.

# 8.1.2. Other techniques or interventions

This section includes:

- Relaxation and distraction techniques, which, even though they can be used independently, are frequent components of treatments that have proved their efficacy, such as CBT.
- Complementary or alternative techniques, such as massage, music therapy, or the use of certain diets or nutrients. In many cases, these techniques are not fully supported by the healthcare systems, or they are not included in those systems' portfolio of services.
- Participation in volunteer organisations, the formation of peer support groups, social networks, and family support.

The main outcomes of the systematic review by Jorm et al.<sup>196</sup> are summarised below:

- **Relaxation**: in two randomised trials, the efficacy of relaxation in adolescents with depression was studied. In the first one<sup>199</sup>, and in comparison with massage, relaxation had effects on anxiety but not on depression. In the second trial<sup>130</sup>, relaxation was compared with CBT, and it obtained a worse outcome than CBT. In two non-randomised studies, lower depression scores were observed in patients of the relaxation training group, the restructuring group, and the control group. Both relaxation and watching a relaxing video generated improvement regarding anxiety but not regarding depression<sup>200,201</sup>.
- **Distraction techniques:** a single study<sup>202</sup> measured the self-reported depressive symptoms in 75 patients with depression, in 26 psychiatric patients without depression, and in 33 healthy controls. The three groups were exposed to induced rumination or to distraction techniques, and a greater depressive symptomatology was observed after rumination than after distraction techniques.
- **Massage**: in three trials with a small sample size, it was observed that massage reduced depressive symptomatology in the short term and that it produced effects on the asymmetry of EEG waves (a marker of the vulnerability for depression).
- Art therapy: in a single study, no differences were observed between this technique and informal recreational activities in a group of 39 patients who were hospitalised due to suicidal behaviour<sup>205</sup>.
- **Music therapy**: one randomised trial with a small sample size<sup>206</sup>, in which music therapy was compared with cognitive behavioural therapy, observed a greater reduction of depressive symptoms among the participants assigned to music therapy, although the methodological quality of the study prevents the efficacy of the treatment from being assured.
- Omega-3 fatty acids: a single trial was included, which included 28 children from 6-12 years of age with depression, who were randomly distributed to receive omega-3 fatty acids or placebo<sup>207</sup>. Out of the 20 analysed patients, 7 out of 10 children who received omega-3 fatty acids showed a decrease of greater than 50% according to the CDRS scale, while no child of the placebo group showed improvement. Even though giving omega-3 fatty acids seems to improve depressive symptomatology, the methodological quality of the study prevents the efficacy of the treatment from being assured.
- Light therapy: in one study in which light therapy was compared with relaxation in 9 patients with winter depression and non-seasonal depression, improvement was only observed in the winter depression group<sup>208</sup>. In another study, 28 patients who received light therapy or placebo were compared, and improvement was observed in the symptomatology reported by the parents, but not in the self-report<sup>209</sup>.

Finally, a systematic review performed by Morgan and Jorm<sup>210</sup> covered different alternative self-help treatments and techniques for the treatment of depression (borage, carnitin, chromium, ginkgo biloba, ginseng, lavender, lecithin, saffron, selenium, St. John's wort, vitamins, caffeine, and a diet low in proteins and rich in carbohydrates). Since it was performed without age restrictions, most of the studies were on adults, in general with low-quality methodology and without finding significant changes with respect to the control group.

# 8.2. Physical exercise

Another form of self-help is promoting activities directed at maintaining good health through physical exercise, a healthy diet, and other healthy lifestyles, such as avoiding tobacco, alcohol, and other drugs and maintaining an adequate sleep pattern. These aspects are usually altered by the depressive disorder itself, wherefore it is important to have an impact on them.

In general, exercise and physical activity are associated with a better quality of life and with better outcomes on health, both physical and mental<sup>211</sup>. However, studies on children and adolescents are scarce and not always conclusive, and they are usually performed on the general population or a population with mild depression.

In 2006, Larún *et al.*<sup>212</sup> performed a systematic review for the purpose of determining if physical exercise reduces or prevents anxiety or depression among children and young people. They included 16 randomised trials with a total of 1191 participants between 11 and 19 years of age. The interventions included different aerobic exercises, such as walking, running, aerobics, or weight lifting. The intervention period varied from 6 to 40 weeks, and exercise was compared with the following: no intervention (no treatment, wait list, or regular physical activity provided by the school or institution), low intensity exercise, or psychosocial interventions (discussion or orientation group).

In the general population, the authors observed a statistically significant difference in depression scores in favour of the group that did aerobic physical exercise or weight lifting, even though the trials were generally of low methodological quality and were highly heterogeneous. In children and adolescents being treated for depression, no statistically significant differences were found. Differences also were not found, either in the general population or in children under treatment, when aerobic or anaerobic physical exercise was compared with low intensity exercise or relaxation, or when physical exercise in general was compared with psychosocial interventions.

Nabkasorn *et al.* (2006) performed a randomised cross-over trial on 49 young women from 18 to 20 years of age with mild-moderate depression. The participants were randomised to follow a group physical exercise scheme (five weekly sessions of 50 minutes each at a slow jog) or activities of daily life for 8 weeks. They subsequently participated in the alternative scheme for another 8 weeks, and a statistically significant association was observed between participating in physical exercise and a decrease in the score obtained according to a depression scale<sup>213</sup>.

Finally, the study performed by Johnson *et al.* on 1721, twelve-year-old adolescent girls did not observe any significant correlation between depressive symptoms and physical activity<sup>214</sup>.

The evidence regarding the efficacy of physical activity is limited, wherefore the suitability of recommending it as part of a therapeutic strategy will be assessed individually, and as long as the severity of the symptoms does not make it difficult to do physical exercise.

# 8.3. Family, social, and environmental interventions

In a narrative review, the NICE guideline covers the role of family support and of social and environmental interventions in treating depression in children and adolescents<sup>62</sup>. Its authors considered that, despite the fact that family interventions could be useful preventive strategies, there are few studies in this regard, and those that do exist were mainly in the United States, wherefore it is difficult to extrapolate their outcomes to our context. Nevertheless, the limited available evidence suggests that preventive intervention in children or adolescents who have psychosocial risk factors could be beneficial.

Social and environmental factors could have an impact on the mental health of children and young people, which factors include relationships with peer groups, the parents' labour situation, financial matters, neighbourhood problems, harassment by peers, or school problems. There are studies that consider bullying to be a predisposing factor and a possible cause of depression in children and adolescents, and they point out the effectiveness of some school interventions against bullying. However, the evidence about a direct relationship between these factors and the appearance of depression is scarce.

#### Summary of the evidence

1-	The evidence on the efficacy of self-help techniques and on alternative treatments in major depression in children and adolescents is very limited, because there are few studies of methodological quality (196).
1-	Exercise seems to reduce the depression scores in the general population of children and adolescents, although the heterogeneity of the participants and of the interventions used and the different measurement methods limit the possibility of establishing any conclusions (212).
2+/3	The limited evidence that is available suggests a beneficial effect by preventive interventions in the family, social, and environmental areas (62).

#### Recommendations

1	It is recommendable that all health professionals involved in managing depression in children and adolescents have suitable training that allows them to advise about all forms of self-help that are potentially useful for patients, parents, or carers.
1	Recommending self-help interventions should form a part of a comprehensive treatment strategy.
DGPC	It is recommendable to offer information about the advantages of regular physical exercise for children or youths with depression, as long as the severity of the depression does not hinder this activity.
1	It is recommendable to also provide information about the benefits of balanced nutrition and maintaining a pattern of adequate sleep.
1	When assessing children or adolescents with major depression, the family and social context must be taken into account. The quality of the patient's interpersonal relationships must also be assessed, both the relationships with their family members and with their friends and peers.
1	It is recommendable to always ask a patient and their family members about the consumption of alcohol and other drugs and about the existence of a history of school harassment, abuse, or self-injurious behaviour.

# 9. Suicide in childhood and adolescence

### **Questions to be answered:**

- What are the risk factors of suicide in childhood and adolescence?
- What are the fundamental aspects of treating suicidal ideation and behaviour?
- What interventions are effective at preventing suicidal behaviour in children and adolescents with major depression?

# 9.1. Suicide: conceptualisation

The WHO defines suicide as "an act with fatal outcome, which was deliberately initiated and performed by the deceased, in the knowledge or expectation of its fatal outcome, and through which the deceased aimed at realising changes he/she desired" and parasuicide as "an act with nonfatal outcome, in which an individual deliberately initiates a nonhabitual behaviour that, without intervention by others, will cause self-harm, or ingests a substance in excess of the prescribed or generally recognized therapeutic dosage, and which is aimed at realizing changes which he/she desired via the actual or expected physical consequences"<sup>215</sup>.

In order to work with concepts and terminology about suicide, a distinction is frequently made between the following<sup>216</sup>:

- **suicidal behaviour:** a spectrum of behaviours, with a fatal conclusion or not, which include a suicide attempt or suicide.
- **suicidal ideation:** thoughts that can vary from ideas such as life is not worth it to wellstructured plans about how to die, or intense, self-injurious concerns.

It has also been proposed that suicidal behaviour could be considered a continuum that goes from cognitive aspects such as suicidal ideation and planning to behavioural aspects such as a suicide attempt or suicide<sup>216-220</sup>.

A key aspect of suicidal behaviour is its intent, wherefore some definitions that are usually used for specifying the type of suicidal behaviour make reference to the intention of the behaviour:

- **frustrated suicide**: there is genuine self-injurious intent, and some circumstances unforeseen by the subject prevent the suicide from being completed<sup>221</sup>.
- **self-injurious behaviour**: self-inflicted injuries that cause manifest bodily harm, without putting the life of the patient in jeopardy<sup>221</sup>. This self-injurious behaviour consists of inflicting bodily harm without suicidal intent.
- **threat of suicide**: it is used to define those manifest expressions that indicate to others the intention to carry out suicide. They can be accompanied by actions to initiate suicide<sup>222</sup>.

A term that is also frequently used is contagion, which is used to define suicides that occur in a brief period of time in a certain sector, generally in a community or school<sup>216</sup>.

# 9.2. Epidemiology of suicide

Suicide in adolescence has become a serious public health problem<sup>223</sup>. Despite this fact, the majority of epidemiological studies do not cover adolescence separately, and there is a certain overlap of ages with respect to the established groups. Moreover, suicide is an exceptional event in childhood, so some studies do not count minors under the age of 15 because of the scarce number of cases<sup>224,225</sup>. According to estimates of the WHO (Table 21), globally one data of major concern is the increase in suicide rates that is occurring among young people (15-24 years old), which places it as one of the three most frequent causes of death in this age group. The majority of national and international studies have clearly shown this increase in young ages, above all in males.

Spain is among the countries with the lowest suicide rates in Europe<sup>36,226</sup> (Tables 21 and 22), although one characteristic of Spain is the existence of an overall rising trend (Table 23), while in the majority of countries there is a decrease or stabilisation of the rates<sup>224</sup>.

In one comparative study on the evolution of suicide, it was observed that countries of the previous Soviet Union and Finland show the highest suicide rates in the world, while Greece shows the lowest suicide rates<sup>227</sup>.

				5-14			15-24	
Region	Country	Year	Total	Male	Female	Total	Male	Female
Africa	Mauritania	2004	0.0	0.0	0.0	8.2	11.2	5.2
AIIICa	Zimbabwe	1990	0.5	0.5	0.5	12.5	13	12.1
North America	Canada	2002	0.9	0.9	0.9	11.5	17.5	5.2
NOTULI AITIEFICA	USA	2002	0.6	0.9	0.3	9.9	16.5	2.9
South America	Argentina	2003	0.9	1.1	0.7	12.4	19.2	5.5
SUUIT AMERICA	Cuba	2004	0.5	0.6	0.3	5.4	7.7	3.1
	Spain	2004	0.3	0.5	0.1	4.3	6.4	2.1
	Finland	2004	0.8	1.2	0.3	21.7	33.1	9.7
	France	2003	0.4	0.7	0.2	8.1	12.5	3.7
Europe	Greece	2004	0.2	0.4	0.0	1.7	3.0	0.3
Europe	Italy	2002	0.2	0.2	0.2	4.1	6.5	1.5
	Lithuania	2004	1.6	2.7	0.5	25.5	42.9	7.4
	Sweden	2002	0.6	0.7	0.5	9.7	14.6	4.5
	United Kingdom	2004	0.1	0.1	0.1	5.2	8.0	2.3
Eastern	Iran	1991	0.0	0.0	0.0	0.3	0.4	0.2
Mediterranean	Kuwait	2002	0.0	0.0	0.0	0.6	1.2	0.0
Western	China	2004	0.6	0.5	0.8	12.2	15.4	9.0
Pacific	Japan	2004	0.4	0.4	0.4	12.8	16.9	8.4
O a utha a a t-A a i a	Sri Lanka	1991	2.5	3	2	50.5	59	42
Southeast Asia	Thailand	2002	0.6	0.6	0.5	8.9	13.8	3.8

Table 21. Suicide rates (per 100,000 inhabitants) according to age, s	ex, and most recent year
available	

Source: own preparation based on WHO data<sup>36</sup>

	Both	Both sexes		Males		Females	
	2005	2006	2005	2006	2005	2006	
All ages	3,399	3,234	2,570	2,504	829	730	
< 15 years old	7	5	4	2	3	3	
15-19 years old	66	50	52	34	14	13	

#### Table 22. Number of suicides in Spain by age and sex. 2005 and 2006

Source: own preparation based on data from the National Statistics Institute (INE)226

# Table 23. Number of deaths by suicide, specific rates (per 100,000 inhabitants) and PCA\* according to sex and age in Spain (1986-2001). Age group: 15-24 years old

	Male	Female
Deaths (n)	3,861	899
Specific rates	7.44	1.81
РСА	0.18 (-0.5 to 0.88)	-0.62 (-2.04 to 0.81)

\*PCA: percentage of change; CI of 95%.

Source: own preparation based on Arán Barés et al.224

One of the most notable characteristics in the epidemiology of suicide in the 20<sup>th</sup> century is its increase in young males of industrialised nations. Thus, the time evolution of suicide in England and Wales shows an increase in suicide rates, above all in the period from 1970 to 1990. However, after this increase, a year-by-year decrease of the rates was observed, mainly in the 15- to 24-year-old age group. In women, the rates remained stable over time, and in the 21<sup>st</sup> century, they are the lowest of the entire analysed period. These fluctuations have been related to variations in risk factors, specifically to favourable changes: to a better health policy and to increases in employment levels<sup>228</sup>.

With respect to suicide attempts, there are problems in compiling the data, so it is difficult to estimate the actual figures<sup>227</sup>. Suicide attempts by females are more common (approximately 1.6:1). It is estimated that every year approximately 2 million adolescents attempt to commit suicide in the United States, for which barely 700,000 receive medical attention<sup>222</sup>. In Spain, there is little data on suicide attempts and their relation to completed suicides. In one recent study in which different variables in adolescents and adults were compared, it was found that suicide attempts by adolescents are more impulsive, that the attempts depend on the availability of methods, and that frequently there is no severe, associated psychopathology or a desire for death or a certainty about it<sup>229</sup>.

# 9.3. Risk factors

Variables of highly different natures have been analysed as risk factors of the vulnerability for developing suicidal ideation and behaviours, and even though neither the weight of each variable separately nor the interactions that can be established between them are known, there is a certain consensus about those that are listed below (Table 24).

### 9.3.1 Individual factors

### Depression:

It has been frequently associated with suicidal behaviour and ideation<sup>216</sup>. Thus, in girls the presence of major depression is the most important risk factor, followed by a previous suicide attempt, while in boys, it is the previous suicide attempt, followed by depression, substance abuse, and behaviour disorders<sup>222</sup>.

The presence of depressive symptomatology increases the risk in both sexes<sup>70,218</sup>, and it has been observed that depressive disorders are present in 49%-64% of adolescents who commit suicide and that this pathology is the most prevalent<sup>219</sup>. One review of the subject states that major depression increases the risk of suicide by up to a factor of 12, especially if hopelessness is one of the symptoms.

In one study performed in Spain with school children from 8 to12 years of age, it was clearly shown that both suicidal ideation and intent are associated with increased depressive symptomatology<sup>230</sup>.

### Other mental disorders:

Close to 60% of children and 90% of adolescents with suicidal behaviour show at least one mental disorder at the time of the attempted or completed suicide<sup>219</sup>. Those that have been listed the most are affective disorders, in addition to substance abuse and anti-social behaviour. Several comorbid disorders<sup>218</sup> are frequently found, and the greater the number of these disorders, the greater the suicide risk<sup>216</sup>.

Suicide attempts have been related to food disorders in female adolescents (above all in those who are older), to behaviour disorders in men, and to substance abuse in both sexes<sup>70</sup>.

Other authors have associated suicidal behaviour with schizophrenia<sup>231, 232</sup>, with bipolar disorder<sup>219</sup>, with personality disorders (Axis II)<sup>233</sup>, and with certain personality traits (self-esteem, impulsiveness, rage, and aggression)<sup>216</sup>.

The findings suggest that the psychiatric diagnosis at the time of the attempt and the psychiatric history are the most important factors for determining suicide risk<sup>216</sup>. It has also been related to previous contact with the mental health service<sup>233</sup>.

### Psychological factors:

Some variables such as cognitive rigidity<sup>216, 219, 233</sup>, deficient problem-solving skills, and being more focussed on the present than oriented towards the future have been related to suicide attempts<sup>232</sup>.

One systematic review found that adolescents with previous suicidal behaviour, in comparison with healthy controls or psychiatric patients, show a greater deficit of problem-solving skills, although these differences disappear when variables such as depression and hopelessness<sup>234</sup> are controlled.

Hopelessness is also a risk factor traditionally related to suicidal behaviour, and it is frequently used in clinical practice due to its utility and easy detection. However, some authors have proposed that hopelessness, by itself and without the existence of depression, does not predict an attempt<sup>219</sup>.

Neuroticism, the tendency to attribute control of one's own life to external factors, and impulsiveness have also been identified as risk factors in adolescents<sup>219,233</sup>.

Regarding attachment, some problematic patterns of attachment, characterised by excessive separation anxiety, are related to suicidal ideation<sup>219</sup>.

### Previous suicide attempt:

Most studies consider this to be one of the most important risk factors, fundamentally in males, as previously stated<sup>219</sup>. Some studies point out that approximately 50% of adolescents who make a serious suicide attempt have made at least one previous attempt<sup>233</sup>.

### Age:

Before puberty, both suicide and suicide attempts are exceptional, possibly due to cognitive immaturity, which makes it difficult to come up with a plan and execute it and due to the fact that some children cannot comprehend suicide as an irreversible event. However, they increase in adolescence, associated with the presence of comorbidity<sup>70, 219, 225, 233</sup>, especially mood disorders and substance abuse<sup>219</sup>.

### Sex:

There are suicide patterns with respect to sex, but they are not the same in all countries<sup>70,219,225,233</sup>. In general, suicide is more common in males, but women make more suicide attempts. In Spain, sex has been considered to be a differential factor, given that suicide rates can be up to three times higher in men than in women in all age groups<sup>224</sup>.

### Genetic and biological factors:

A decrease in homovanillic acid (a precursor of dopamine) in the cerebrospinal fluid<sup>219, 222, 233</sup>, changes in the metabolism of serotonin<sup>218, 219, 231, 233, 235, 236</sup>, and the presence of polymorphisms in the tryptophan hydroxylase gene<sup>219</sup> have been related to suicidal behaviour. In turn, the markers GRIK2 and GRIA3, located in genes that code the iontropic glutamate receptors, have been associated with suicidal ideation. This is consistent with the existing evidence on the effect of antidepressants in glutamate signaling<sup>235</sup>.

# 9.3.2. Family and contextual factors

### Psychopathology of the parents:

A family history of suicide, psychopathology, and substance abuse by the parents have been frequently associated with suicidal behaviour<sup>70, 216, 233, 237</sup>.

### Family structure or functioning:

Living apart from the two parents has been associated with an increase in the prevalence of the suicide phenomenon. However, no association with the death of one or both parents was found<sup>218</sup>. Some studies have suggested that women are less reactive to family stress factors than men<sup>233</sup>, and they have also related low levels of parent-child communication with suicidal ideation and behaviour<sup>70, 219</sup>.

### Stressful life events:

They have been related to suicidal ideation and behaviour<sup>70, 216, 219, 233, 237</sup>.

### Social factors and education level:

An association has been found between suicidal behaviour and both a low socio-economic status and a low education level<sup>216, 233</sup>. Low academic performance has been associated with suicidal ideation, and having a negative attitude about school and school activity has been associated with an increase in the prevalence of the suicide phenomenon<sup>218</sup>.

### Exposure:

Close exposure to suicide cases (the "contagious" effect) or to a certain type of information in the media about suicides has also been associated with suicide<sup>70, 216, 218, 237</sup>.

### Social network:

An association has been found between poor or deficient relations with the peer group and suicidal ideation. An association has also been found between problems in relations with peers and suicide attempts, but not with the degrees of support from the peer group<sup>218</sup>. The presence of sentimental difficulties has also been seen as a risk factor in adolescent women, especially those of a younger age<sup>219</sup>.

### 9.3.3. Other factors

### Physical or sexual abuse:

Children who are subject to situations of physical and sexual abuse have a high incidence of suicidal behaviour. It has been related to physical and sexual abuse, the latter more in males than in women, with differences of 52% in males versus 2% in women. Sexual abuse is related to psychopathological disorders, and it is not clear if the high prevalence of suicidal behaviour is due to the abuse itself or to the pathology<sup>219</sup>.

### Sexual orientation:

Suicidal ideation and behaviour have been associated<sup>216, 218, 222, 233</sup>, but there is no scientific evidence in this regard, basically due to the intervention of other variables<sup>218, 222</sup>.

### Bullying:

It has been related to suicidal behaviour and also to high levels of stress and suicidal ideation<sup>219, 222, 231</sup>.

#### Table 24. Main suicide risk factors

– Major	depression.
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- Presence of other comorbid disorders.
- Previous suicide attempt.
- Adolescent age.
- Masculine sex.
- Psychological factors (hopelessness, cognitive rigidity, etc.).
- Genetic and biological factors.
- History of psychiatric disorders and suicide in the family.
- Stressful life events.
- Exposure (cases close to the person or through the media).
- Difficulties with the peer group or partner.
- Physical or sexual abuse.
- Bullying.

Source: own preparation.

# 9.4. Precipitating factors

It has been seen that certain factors can act as precipitators of suicidal behaviour:

- Stressful life events often precede a suicide and/or suicide attempt. It is infrequent that they might be sufficient cause for a suicide, so their importance stems from the fact that they would act as a precipitating factor in young people who are vulnerable because of their psychiatric condition<sup>216,219,222,236</sup>.
- Crisis with parents<sup>236</sup>.
- Psychological/personal factors<sup>236</sup>.
- Family conflicts<sup>219</sup>.
- Problems with the peer group<sup>219</sup>.
- School difficulties<sup>219</sup>.

In any event, these precipitating factors could change with age. Thus, in pre-adolescent children, bad family relations are a common precipitating factor, and in adolescents, conflicts with the peer group are a common precipitating factor<sup>219</sup>.

# 9.5. Protective factors

The volume of studies that have focussed on protective factors in childhood or adolescence is low when compared with the multiple studies on risk factors<sup>233</sup>.

Some protective factors that have been proposed are the following:

- Cohesion with the family and with the peer group<sup>70, 216, 219, 233</sup>.
- Problem-solving skills and confrontation strategies<sup>70, 216</sup>.
- Positive attitudes and values, particularly regarding suicide<sup>70, 216</sup>.
- Female sex<sup>70</sup>.
- Religious beliefs<sup>70, 219</sup>.
- Skill at structuring reasons to live<sup>70</sup>.
- Education level<sup>219</sup>.
- Internal locus of control<sup>233</sup>.
- Self-esteem<sup>233</sup>.
- Intelligence<sup>233</sup>.
- Support systems and resources: social support, being in therapy, positive school experience, and having hobbies<sup>233</sup>.

# 9.6. Treatment aspects

### 9.6.1. Assessment

Once a child or adolescent has made contact with the healthcare system, either through the emergency service or through primary care, it is necessary to make an on-the-spot psychiatric and psychosocial assessment<sup>238</sup>.

In order to assess a suicide attempt, it is important to consider aspects such as the method used and the medical severity (it is not always a reliable predictor in children and adolescents, given that they can make an erroneous judgement about the potential lethalness of their behaviour), the degree of planning of the suicidal behaviour, and the accessibility to methods (firearms, toxic substances, etc.)<sup>222</sup>. It is also important to differentiate between self-injuries that are caused impulsively from those that are highly lethal and that are highly planned, as well as the existence or not of subsequent regret.

Regarding suicidal ideation, it is necessary to delve into aspects such as the moment it started and how it evolved, the effort made to not be discovered, the formulation of specific plans, the motivation or intent of the behaviour (calling attention, seeking a change of personal relations, perception of experiencing an intolerable situation), and the feeling of hopelessness<sup>222</sup>.

Information must be obtained from the parents or other people who know the child or adolescent, given that the validity of the interviews will depend on the level of cognitive development and the type or degree of severity of the psychological distress. Disparity between the data obtained from the patients and from their parents is frequently found; children and adolescents normally provide better information about their suicidal ideation or behaviour than their parents<sup>238</sup>.

It is also important to evaluate other underlying factors that can indicate a greater risk and provide orientation about those aspects that could require intervention<sup>222</sup>:

- Diagnosis of mental illness.
- Social factors and cognitive function.
- Presence of a family history of psychopathology.
- History of physical or sexual abuse.
- Substance abuse.
- Presence of a stressful life event.

Finally, and with respect to making a clinical decision, it is important to take risk factors into account, such as sex (greater risk in males), age (greater risk in older adolescents), if the patient lives alone, and the existence of delusional ideation<sup>238</sup>.

### 9.6.2. Assessment of suicide risk

In general, psychometric instruments that evaluate suicide could be useful for professionals who have daily contact with children and adolescents. Normally, these types of questionnaires are focussed on collecting information about the most important risk factors, such as a previous suicide attempt or the presence of major depression, wherefore they could help in the decision about when to refer a patient to specialised care. Despite the fact that self-applied tests can help, they can never replace a clinical interview, given that the tests alone lack predictive value<sup>222</sup>.

In clinical practice, there are certain impediments when using these types of methods:

- They are costly, because in some cases they must be applied by specialised personnel.
- On occasions, they have not been adapted to and validated in Spanish.
- They require time and training that is sometimes not available.

#### Risk of Suicide Questionnaire

The Risk of Suicide Questionnaire (RSQ) has recently been validated (with Mexican children and adolescents). This questionnaire was developed by Horowitz in 2001<sup>239</sup> to detect suicidal behaviour in children and adolescents by non-specialised personnel. Its original version in English proved that it was an instrument with high sensitivity and specificity. In its Spanish version, it was found that there was moderate internal consistency and a moderate-high correlation to constructs that are linked to the suicide risk, such as hopelessness, wherefore the RSQ could be a useful tool. It consist of 14, Lickert-type questions using a 7-point scale (the greater the score, the greater the suicide risk), and there is a brief version with only four items, which are those that are related to the current suicidal behaviour, past suicidal ideation, past self-destructive behaviour, and current stress factors<sup>240</sup>.

#### Beck Hopelessness Scale

The Beck Hopelessness Scale<sup>241</sup> is an instrument designed to measure the degree of hopelessness, as a cognitive scheme of negative expectations towards the immediate and long-term future. It has been used as an indirect indicator of suicide attempts in adolescents, and it has turned out to be a valid instrument, with high internal consistency and stability over time. This scale is self-applied, it consists of 20 true or false questions, and it has been adapted to and validated in Spanish<sup>242</sup>.

#### Suicidal Intent Scale

Beck designed the Suicidal Intent Scale (SIS) in 1974 as a scale to measure suicidal intent, but it has not been highly studied for children and adolescents. In Spain, the scale was applied to a study on youths between 15 and 24 years of age after a suicide attempt. In that study, it was observed that adolescents that had an affective disorder with a depressed mood at the time of making a suicide attempt showed a greater suicide intent than those with another type of disorder<sup>243</sup>.

There is another scale that was designed by the same group in 1979 to measure suicidal ideation, the Scale for Suicide Ideation (SSI)<sup>244</sup>, but there is limited evidence of its use in adoles-cents<sup>222</sup>.

### Beck Depression Inventory

The Beck Depression Inventory (BDI) could also be useful for handling depressive symptomatology, given that is an instrument that has proved to be reliable and valid for use both clinically and in research. The BDI is a self-applied scale that is usually used to evaluate the severity of the illness. The original version from 1961 consists of 21 items, and the abbreviated version has 13 items<sup>245</sup>. Two revisions were subsequently published: the BDI-IA in 1979 and the BDI-II in 1996<sup>246</sup>. The scale was adapted to and validated in Spanish in 1975<sup>247</sup>. Despite the fact that this questionnaire has only one item (item 9), which measures the presence of suicidal ideation and behaviour, in a psychotherapy RCT it was the best clinical predictor of the appearance of suicidal thoughts and acts during the trial<sup>248</sup>.

## 9.6.3. Hospitalisation criteria

Children and adolescents who have acute suicidal ideation or who have made a suicide attempt are frequently assessed and treated initially at emergency services<sup>222</sup>.

To determine when hospitalisation is necessary, it is important to assess the patient within their context and the available support systems. Hospitalisation is considered necessary when the patient shows several risk factors or when support in the community is limited<sup>238</sup>.

Some of the factors that could point to the need to hospitalise young people with suicidal behaviour are the following<sup>231, 238</sup>:

- Agitation, mania, or aggression.
- Intoxication.
- Difficult out-patient management.
- Acute psychotic disorder or delusional ideation.
- Psychotic depression.
- Bipolar disorder with irritability or impulsiveness.
- Medical-legal considerations.
- Family history of suicide.
- Male sex (due to presenting a greater risk).
- History of previous suicide attempts.
- Substance abuse.
- Family difficulties (inadequate supervision or care).

### 9.6.4. Outpatient follow-up

Before discharging a patient, it is advisable to assess the severity of the suicidal ideation and/ or suicide attempt and to inform the family about the possible disinhibiting effect of drugs and alcohol and inform them that they should take special precautions with toxic substances (access to medication) or firearms within reach of the child or adolescent. It should be recommended that there always be someone at home (accompaniment), and the importance of follow-up on the patient must be explained<sup>222</sup>.

Once the patient is discharged from emergency services, it is important that primary care professionals perform follow-up and that a child and adolescent mental health professional perform follow-up within 7 to 10 days<sup>238</sup>. Moreover, due to the fact that the state of mental health and suicidal ideation can fluctuate considerably in short periods of time, it is advisable to regularly re-assess the patient, especially if circumstances change.

### 9.6.5. Psychotherapy

The therapies used the most within this scope are cognitive behavioural therapy and the variations thereof, such as dialectical behaviour therapy (DBT). Other therapies such as interpersonal therapy, family therapy, and group therapy are also used, but there are fewer studies that have analysed their efficacy. DBT is a variation of CBT, and it was designed for interventions in personality disorders, but it has been adapted so that it can be used with adolescents with suicidal ideation or behaviour<sup>238</sup>.

In a recent systematic review<sup>217</sup>, studies that used CBT or treatments composed of cognitive behavioural methods for reducing or preventing suicidal behaviour were used. CBT seems to be effective with the adult population, but not with adolescents. The conclusion offered by the study is that suicidal behaviour – when the sample is primarily adolescent – is more difficult to treat. The authors point out that it is necessary to take into account both the scarcity of included studies on adolescents and the heterogeneity of the included studies.

Another systematic review<sup>249</sup> included studies on psychosocial interventions after a selfinjury and their impact on suicide. The therapies used in the psychosocial intervention were CBT, DBT, and IPT. The majority of the studies included in this review basically used group interventions. Statistically significant differences were found in the reduction of repeated self-injuries, but this does not necessarily translate into a decrease in suicide.

In 2008, an RCT<sup>250</sup> performed on adolescents and young adults with antecedents of recent self-injurious behaviour was published. The intervention group received a brief intervention based on a CBT that was especially designed to prevent self-injuries, and it was associated with the usual care. The control group only received the usual care, which consisted of drug therapy, a psychotherapy other than CBT, and hospitalisation, if necessary. The specific type of psychotherapy or psychotropic drug used in the control group was not recorded. The primary measure of the outcome was the number of self-injuries in the last three months, and it was observed that the CBT therapy used in addition to the usual care was more effective at reducing self-injuries and suicidal ideation.

The effectiveness of IPT, and also the effectiveness of other psychotherapies, depends on the capacity of the child or adolescent to establish a therapeutic alliance<sup>222, 249</sup>, given that the alliance depends on whether or not the patient provides comprehensive information about their suicidal ideation.

With respect to supportive therapy and systemic family therapy, there is evidence that, in comparison with CBT, the therapy that had the worst outcomes was supportive therapy, wherefore it should not be used as the only therapy in adolescents with depression or suicidal ideation<sup>238</sup>.

### 9.6.6. Pharmacological treatment

The pharmacological studies in this area have focussed on the treatment of adolescent depression.

Normally, pharmacological RCTs performed on children and adolescents do not consider suicide as an outcome variable. Most commonly, suicidal behaviour is assessed retrospectively, once it has occurred. This fact occasionally makes it difficult to make an association between the variables that could be directly related to suicidal ideation or behaviour<sup>251</sup>.

Ever since the 90s, when suicidal ideation and behaviour started to be related to the use of new-generation antidepressants, there has been controversy about this possible effect. In Spain, the Spanish Agency of Medicines and Healthcare Products (ASEMPS) has adopted the conclusions of the European Medicines Agency (EMEA), and it reports a favourable benefit/risk balance for the use of fluoxetine in child and adolescent depression<sup>252</sup>.

For the AEMPS, the use of fluoxetine in major depression of children and adolescents should be considered under the following conditions<sup>252</sup>:

- In moderate to severe depression.
- In adolescents and children aged 8 or more.
- If the depression does not respond to psychological therapy after 4-6 sessions.
- In combination with psychological therapy.
- At an initial dose of 10 mg/day, which can be increased to 20 mg/day after 1-2 weeks of treatment.
- Monitoring the suicidal behaviour closely, especially during the start of treatment.
- Considering that, if no clinical benefit is obtained at the end of 9 weeks, the treatment must be re-assessed.

Likewise, Spanish authorities have established that the laboratory that holds the marketing permit must perform additional studies to guarantee that the safety of fluoxetine in this population group remains acceptable.

The studies performed to date do not allow drawing definitive conclusions about the use of other SSRIs and other antidepressants in the child and adolescent population. The published outcomes must be interpreted with caution, and the effect of publication bias with respect to unpublished material must be considered<sup>253</sup>.

Lithium and clozapine are effective in adults at reducing suicidal behaviour in the bipolar disorder and schizophrenia, respectively, but they have not been studied in children and adoles-cents<sup>238</sup>. Tricyclic antidepressants, monoamine oxidase inhibitors, and venlafaxine have not been proved to be effective in children and adolescents<sup>251</sup>.

The risk of suicide must be monitored and assessed in all cases, but above all in the initial weeks after the start of treatment with an antidepressant when there has yet to be improvement in the mood state, due to the disinhibitive effect of the behaviour. In order to know the influence of antidepressants on phenomena such as suicide (which rarely appears), specific studies using a suitable methodology must be performed<sup>253</sup>.

### 9.6.7. Other treatments

Electroconvulsive therapy is not used frequently with children and adolescents due to its invasive nature. Nevertheless, in cases of severe depression in which the suicidal behaviour is persistent and quick effectiveness is needed, ECT has been used with good outcomes<sup>238</sup>.

# 9.7. Suicide prevention

Currently, suicide prevention in Europe is a priority, as it was clearly stated in an assembly recently held by the Council of Europe. This assembly established guidelines for member states for the purpose of facilitating the detection of adolescents who are at a high risk and for the purpose of orienting prevention. Among other things, a multidisciplinary approach is proposed, in which the healthcare system must interact with other areas, such as education, the media, and the legal system. It also poses the need to promote scientific research and to train health professionals on identifying adolescents at a high risk. Some examples of suicide prevention strategies that are proposed include the Alliance Against Depression in Germany; and in Finland and Canada a method called "psychological autopsy" is being included in prevention programmes in order to objectively identify the factors that underlie suicidal behaviour<sup>223</sup>.

### 9.7.1. Interventions at school

The main objective of suicide prevention programmes in this area is to optimise the functioning of students and improve their quality of life<sup>238</sup>. In response to the problem of increased suicide rates in adolescents in the USA, prevention programmes have been carried out over the last 20 years, mainly in schools. However, few programmes have been scientifically assessed, and some of them have shown limited impact<sup>254</sup>.

### Prevention programmes based on the curriculum

They can be universal prevention programmes or indicated prevention programmes.

Universal programmes are integrated into the curriculum, but there are few studies published on their efficacy. One example of this type of programme is the SOS (Signs of Suicide) programme, which has obtained a reduction in suicide attempts reported in an RCT. This programme is based on increasing adolescents' knowledge about suicide and on screening for depression and other risk factors such as alcohol consumption<sup>254</sup>.

Indicated programmes are oriented only at high-risk students (for which they would have to be identified first), and they are regularly integrated in the curriculum. There are other examples such as the Personal Growth Class (PGC), which has been implemented in the USA with good outcomes, although the authors themselves point to the need for more studies to determine if these types of programmes should be introduced at schools<sup>237</sup>.

### Programmes based on skill training

They have had good outcomes in schools. There is some evidence that these programmes could reduce suicidal behaviour and improve attitudes, emotions, and coping strategies. The interventions that combine skill training with education about suicide have proved to be more effective, although the specific effect on suicidal behaviour is difficult to quantify<sup>238</sup>.

Despite the fact that there is considerable variability between the different programmes that have been studied<sup>216</sup>, one common element in the programmes that have been successfully implemented is their holistic or global nature (they focus on physical, mental, social, and emotional aspects). Other important aspects have also been pointed out, such as training for professionals who carry out the intervention, suitable support, time, and resources<sup>238</sup>.

#### Screening

Screening of depression, suicidal ideation, and previous suicidal behaviour is a good method for recognising high-risk adolescents, with a good cost/effectiveness ratio. False positives are one of the problems posed by performing this screening, and they would require a second assessment to recognise the real risk.

For some authors, screening at schools would be the best form of prevention. A certain rejection by personnel at schools has been found occasionally, given that screening is usually prescribed as a more invasive technique than other prevention programmes, such as programmes included in the curriculum<sup>238</sup>. Some approaches to this subject recommend that this screening be performed at education centres on adolescents between 15-19 years of age (in the USA, rates increased by 27% in this age group), given that it is the age group with the highest risk, and a more in-depth look must be taken at substance abuse or alcohol consumption<sup>222</sup>.

#### Interventions after a suicide (postvention)

They are directed at reducing the feeling of guilt and at reducing morbidity and mortality in close friends and relatives. Despite the fact that there aren't many studies on the effectiveness of these types of programmes, most experts agree that intervention after a suicide is necessary to provide support and orient relatives of the victim<sup>233</sup>.

These interventions can also be carried out after a serious suicide attempt, given that it could have consequences in other students<sup>255</sup>. They are usually directed at friends, teachers, and family members, and they are usually developed for the purpose of minimising cases of suicide or suicide attempts by vicarious learning<sup>238</sup>.

These programmes are very important, because the fact that a family member, companion, or friend has committed suicide increases the likelihood of suffering from major depression, an anxiety disorder, suicidal ideation, or a post-traumatic stress disorder within the 6-month period after a suicide<sup>222</sup>. They normally have a psychoeducational mission and are based on counselling<sup>216, 222</sup>. They can be performed in individual sessions, with other adolescents, or include parents.

It is well known that it is important to start any intervention immediately and that there be long-term follow-up (some authors have found that, three years after the event, some adolescents frequently present major depression and post-traumatic stress disorder)<sup>222</sup>.

### 9.7.2. Early diagnosis

Currently, it is widely recognised that timely identification of suicide risk can and must be one of the most important measures for prevention.

A primary care professional must investigate contextual factors, individual factors, and stressful life events that could represent psychological distress<sup>233</sup>. It is therefore highly important to train all clinicians who work with children and adolescents (not just mental health professionals) on how to recognise and refer a patient who presents a risk of suicidal behaviour, given that this early diagnosis has a major impact on suicide<sup>222</sup>.

However, suicide risk is frequently not detected, especially in the child and adolescent population<sup>240</sup>. One problem is that many primary care professionals perceive that they are not sufficiently trained on recognising and treating children or adolescents with suicidal behaviour (in Canada, 84% of primary care physicians acknowledge that they think that they would need additional training)<sup>238</sup>.

One study performed in Sweden clearly showed that training primary care professionals on identifying mood state disorders in children and adolescents is related to a decrease in the number of suicide attempts and completed suicides, to an increase in the prescription of anti-depressants, and to the number of hospitalisations<sup>222</sup>.

In the SUPRE (Suicide Prevention) programme, the WHO published some recommendations for primary care professionals on how to investigate the various aspects of suicidal ideation and behaviour (Table 25)<sup>256</sup>. Despite the fact that these recommendations are not specific for children and adolescents, they can provide orientation about how to obtain information when a primary care professional suspects the possibility of suicidal behaviour.

In general, to obtain this information, data must be obtained on suicidal ideation, on suicidal plans, and on the support that the child or adolescent has. It is important to ask the person about their feelings and suicidal intentions, because asking about suicide does not lead to inducing it, contrary to what is usually thought.

#### **Table 25.** WHO recommendations about how, when, and what to ask

#### HOW TO ASK:

It is not easy to ask about suicidal ideation. It is advisable to do so gradually. Some questions that could be useful are the following:

– Do you feel sad?

– Do you feel that you are not important to anyone?

- Do you feel that living is not worth it?
- Do you think about suicide?

### WHEN TO ASK:

- When the person feels empathy from the professional.
- When the person feels comfortable talking about their feelings.
- At the moment when the person talks about feelings of hopelessness or sadness.

#### WHAT TO ASK:

- To discover the existence of a suicide plan: Have you ever made plans to end your life? Do you have any idea about how you would do it?

– To look into the possible method used: Do you have pills, a weapon, insecticides, or something similar?

- To obtain information about whether or not the person has established a goal: Have you decided when you're going to carry out your plan to end your life? When are you going to do it?

Source: WHO256

## 9.7.3. Prevention in patients with mental disorders

Intervention with children and adolescents with mental pathologies can decrease the risk of suicidal behaviour. It would therefore be necessary to perform a diagnosis that determined the suitable intervention strategies. Special care must be taken with comorbid disorders, and it is necessary to regularly review the depressive symptomatology, suicidal ideation, and the presence of any stressful life event, given that the risk of suicide can vary during treatment<sup>238</sup>.

During any treatment, some authors recommend periodic follow-up on suicidal ideation and hopelessness in order to prevent the suicide risk<sup>244</sup>.

### 9.7.4. Other prevention strategies: the media

There is evidence that some forms of media coverage on suicide are associated with a statistically significant increase in suicide rates. The impact seems to be greater among children and adolescents. Handling this subject correctly in the media can help to prevent any imitation of suicidal behaviour; while repetitive and continuous coverage of suicide tends to induce or promote suicidal thoughts, particularly among adolescents<sup>257</sup>.

Along this line, guidelines for the media have been developed, which attempt to prevent contagion (copycat suicide or suicide contagion). For example, the WHO prepared a document of these characteristics for the SUPRE programme (Table 26)<sup>257</sup>, and the Ministry of Health of New Zealand published another one of similar characteristics<sup>258</sup>.

For the WHO, the media can play a proactive role in suicide prevention by publishing news appropriately and by offering the following information<sup>257</sup>:

- List of health services and telephone help lines that are available, including updated telephone numbers and addresses.
- Offering information about the warning signs of suicidal behaviour.
- Transmitting messages about the association frequency between depression and suicidal behaviour and about the fact that depression is a treatable condition.

- Offering a message of solidarity to relatives and providing telephone numbers of available support groups. This increases the possibility that mental health professionals, friends, and family members might take part in prevention programmes designed for this purpose.

VHAT TO DO: • Work closely with the public health authorities on presenting the facts. • Refer to a suicide as an event that has occurred, not as a successful one. • Present only relevant information on the interior pages. • Highlight alternatives to suicide. • Provide information about help lines and community resources. • Publish risk factors and alarm signals.
VHAT TO AVOID: Do not publish photographs or suicide notes. Do not report specific details of the method used. Do not give simplistic reasons. Do not glorify or sensationalise suicide. Do not use religious or cultural stereotypes. Do not place blame.

Source: WHO257

The influence of the Internet on suicidal behaviour is less known than that of other media. In one recent study<sup>259</sup>, it was clearly shown how information on suicide methods and chats can have an impact on suicidal behaviour, especially in young people with a mental illness. The most important strategies in this regard involve the regulation of Internet service providers and the use of software filters by parents. Some countries already control this type of content. In the United Kingdom, the Internet Watch Foundation<sup>260</sup> is an example of the control exercised on the Internet. In Japan and Korea, service providers exercise active control, and in Australia the subject was legislated in 2006<sup>259</sup>. For its part, the European Council recommends controlling the content that can promote suicide, given that, even though this type of information occasionally may not be illegal, it is an obligation of the member states to protect children and adolescents according to the European Convention on Human Rights<sup>223</sup>.

### Summary of the evidence

3	Suicide among young people between 15 and 24 years of age is one of the three most frequent causes of death in this age group (36).
2**	<ul> <li>The risk factors that have been associated the most with suicidal behaviour and ideation are the following:</li> <li>Major depression (216).</li> <li>Psychological factors (216).</li> <li>Presence of comorbid psychiatric disorders (216).</li> <li>Genetic and biological factors (216).</li> <li>Psychiatric antecedents (including suicide) in the parents (216).</li> <li>Stressful life events (216).</li> <li>Social factors and education level (216).</li> </ul>
2*	<ul> <li>The male sex (225).</li> <li>Previous suicide attempt (225).</li> <li>Age-related factors (225).</li> <li>Physical or sexual abuse (225).</li> <li>Family de-structuring and dysfunction (225).</li> </ul>
3	<ul> <li>Difficulties with the peer group and sentimental break-ups (219).</li> <li>Bullying (219).</li> </ul>

2**	Some <b>protective factors</b> that have been proposed are the following: - High family cohesion and good relations with the peer group (216). - Problem-solving skills and confrontation strategies (216). - Positive attitudes and values (216).
2+	<ul> <li>High intelligence, self-esteem, and social support (233).</li> <li>Religious beliefs (217, 228).</li> <li>The female sex (217, 218).</li> <li>Skill at structuring reasons to live (217, 228).</li> </ul>
3	– Medium-high education level (217, 219).
2**	Some factors that can act as <b>precipitating factors</b> of suicidal behaviour are the following: — Stressful life events (216).
3	<ul> <li>Family conflicts (219).</li> <li>Problems with the peer group (219).</li> <li>School difficulties (219).</li> </ul>
4	– Having serious problems with parents (239). – Psychological/personal factors (239).
2**	Exposure to suicide cases close at hand or to a certain type of information in the media has been associated with suicide (216).
3	Once a child or adolescent has made contact with the healthcare system, either through an emergency service or through primary care, there must be a psychiatric and psychosocial assessment on the spot. The assessment must include the medical severity of the suicide attempt, the method used, the degree of planning of the suicidal behaviour, the motivation or intent of the behaviour, and the presence of the feeling of hopelessness (238).
3	It is important to assess other underlying factors that can indicate a greater risk, for which it will be necessary to obtain information from the parents or other people who know the child or adolescent (238).
4	There are various psychometric instruments that can help to assess the suicide risk, such as the Risk of Suicide Questionnaire (RSQ) (240), the Beck Hopelessness Scale (BHS), (241) or the Beck Depression Inventory (BDI) (247), although they cannot replace the clinical interview, because alone they lack predictive value (219).
3	It is important for primary care and mental health professionals to perform periodic follow-up on children and adolescents with suicidal behaviour (238).
2**	There is limited evidence of the efficacy of specific psychotherapies as treatment for suicidal ideation and behaviour in adolescence, although those that have obtained the best outcomes are those that include cognitive behavioural techniques (217, 250).
3	The pharmacological studies that focus on treating adolescent depression do not consider suicide to be an outcome variable, and they assess it retrospectively. This fact makes it difficult to associate variables related to suicide (29).
3	Electroconvulsive therapy (ECT) is not frequently used on children and adolescents. Nevertheless, in cases of severe depression in which suicidal behaviour is persistent and quick effectiveness is needed, ECT has been used with good outcomes (238).
4	Suicide prevention is a priority, and a series of guidelines have been established in Europe for the purpose of facilitating the detection of adolescents at a high risk and for orienting prevention (222).
1⁺	The main prevention methods are the following: — Interventions at school (254).
3	<ul> <li>Early diagnosis (238).</li> <li>Prevention in patients with mental disorders (238).</li> </ul>
4	– Appropriate handling of information about suicide by the media (257, 258).
4	Interventions after a suicide are very important, given that having a close friend or relative who has committed suicide increases the likelihood of suffering from major depression, an anxiety disorder, suicidal ideation, and post-traumatic stress disorder (222).
4	Some forms of journalistic and television coverage are associated with an increase in suicide rates (257, 258).
3	The influence of the Internet is less known, but some web sites with information that promote suicide could favour it, above all in adolescents (259).

### Recommendations

1	Primary care professionals should have suitable information about the main risk factors of suicidal behaviour and ideation in children and adolescents and about the assessment of their risk profile.
1	In patients with depression and/or a suicide risk profile, questions should always be asked about suicide ideas or plans, and the clinical history must include all aspects related to the method, planning, and intent.
1	After a suicide attempt by a child or adolescent, there must always be an immediate psychiatric or psychosocial assessment, if possible by a professional specialising in these age groups.
1	Guidelines will be given to parents or carers regarding accompaniment and control of direct access to medication by children and adolescents.
D	The clinical history should include the medical severity of the suicide attempt, the method used, the degree of planning of the suicidal behaviour, the motivation or intent of the behaviour, and the presence of the feeling of hopelessness.
D	The information will come from the patients themselves, and it is also recommendable to use multiple sources, if possible, such as parents or carers, teachers, and friends.
D	While the various psychometric instruments that exist, such as the Risk of Suicide Questionnaire, the Beck Hopeless Scale, or the Beck Depression Inventory, can help to assess the suicide risk, they cannot substitute the clinical interview, given that alone they lack predictive value.
D	Hospitalisation is recommended for all children or adolescents who have attempted suicide and who show several risk factors and limited family and community support.
D	After a suicide attempt, and if hospitalisation has not been considered, there must be a re-assessment within 7 to 10 days. Subsequently, there must be periodic follow-up by primary care professionals and by child and adolescent mental healthcare professionals.
D	Suicide prevention in children and adolescents should be considered a priority and should fundamentally establish measures that allow early diagnosis of the suicide risk.
D	Measures designed to reach a consensus about suicide coverage by the media and about the content of Internet web pages must be established.

# 10. Legal aspects in Spain

# 10.1. Informed consent and Law 41/02

The purpose of Law 42/2002, the Basic Regulatory Act of Patient Autonomy and of Rights and Obligations regarding Clinical Information and Documentation, is to regulate the rights and duties of patients, users, and professionals, as well as those of both public and private health centres and services regarding patient autonomy and clinical information and documentation.

# What does Law 41/2002 say about the right to information?

Article 2 sets forth the basic principles, including the principle of consent, which every patient and user has to give prior to any action in the healthcare area, and including the right to be adequately informed in writing in the events provided for in the law. It should be highlighted that patients have the right to freely decide among the available clinical options and to refuse treatment, except in the cases determined by law. A patient's refusal of treatment will be recorded in writing.

Both the information provided and the consent given will be verbal as a general rule, and they will be given in writing in the cases of surgery, diagnostic procedures, and invasive therapies and in general in the case of procedures that involve notable risks or inconveniences and that have a foreseeable negative repercussion on the patient's health.

Giving informed consent is a patient's right and a physician's duty.

The physician will provide the patient with the following basic information, before getting the patient's written consent:

- The relevant or important consequences of the intervention.
- The specific risks related to the personal or professional circumstances of the patient.
- The probable risks under normal conditions, according to experience and the state of the art, or those directly related to the type of intervention.
- The contraindications of the action or intervention.

Every patient or user has the right to be advised about the possibility of using the prognostic, diagnostic, and therapeutic procedures that are applied to them in a teaching or research procedure, which in no event can involve an additional risk to their health.

Appendix 6 includes two models of informed consent.

### Who has a right to healthcare information?

The holder of the right to information is the patient, who will be adequately informed according to their comprehension ability, even in the event of incapacity, and there must be compliance with the duty to also inform the patient's legal representative.

When a patient, according to the opinion of the attending doctor, lacks the ability to understand the information due to their physical or mental state, the information will be provided to the people related to the patient by blood or in fact. A patient's right to healthcare information can be limited by the proven existence of a state of therapeutic need. Therapeutic need will be understood as the doctor's authority to act professionally without previously informing the patient when, for objective reasons, a patient's knowledge of their own situation may seriously jeopardise that patient's health. Having reached this case, the doctor will leave reasoned record of the circumstances in the medical history and will notify his decision to persons related to the patient by blood or in fact.

# When is informed consent granted by representation or substitution?

- When the patient is not capable of making decisions, in the opinion of the attending physician, or when the patient's physical or mental state does not allow him to take charge of his situation. If the patient lacks a legal representative, consent will be given by the persons related to the patient by blood or in fact.
- Whenever a patient who is a minor may not be intellectually or emotionally capable of understanding the scope of the intervention. In this case, consent will be given by the minor's legal representative, after having listened to the patient's opinion if he has turned twelve years of age.
- If the decisions of the legal representative were contrary to the interests of the minor, the competent public authority must be made aware of the facts, pursuant to the provisions set forth in civil legislation.
- Whenever it may concern minors who are not incapable or incapacitated but who are emancipated or have turned sixteen years of age, consent given by representation is not applicable. However, in the event of actions that involve a serious risk, in the physician's opinion, the parents will be informed and their opinion will be taken into consideration for making the corresponding decision.

## What are the limits of informed consent?

- A patient's waiver of the right to receive information is limited by the health interests of the patient himself, of third parties, and of the community and by the therapeutic requirements of the case.
- Whenever a patient may expressly state his desire to not be informed, his desire will be respected and his waiver of said right will be recorded in writing, without prejudice to obtaining his consent prior to the intervention.

Physicians can carry out indispensable clinical interventions in favour of the patient's health, without the patient's consent, in the following cases:

- When there is a risk to public health because of health reasons established by law. In any event, and once the appropriate measures have been adopted, in accordance with the provisions set forth in Organic Law 3/1986, the legal authority will be notified within a maximum of 24 hours whenever the mandatory commitment of a person is ordered.
- Whenever there is a serious, immediate risk to the physical or mental integrity of the patient and it is not possible to obtain their authorisation, thereby consulting – when circumstances allow – the patient's relatives or the persons related to the patient in fact.

# Who gives consent in the case of separated parents?

Chapter one of Title VII of parent-child relations of the Civil Code includes Article 156. This article states the following:

"Parental authority will be exercised jointly by both parents or by only one with the express or tacit consent of the other. All acts that either of them may perform according to social use and according to the circumstances, or in situations of urgent need, will be valid." The second paragraph states the following: "in the event of disagreement, either of the two can resort to a Judge who, after hearing them both and the child, if he had sufficient judgement and, in any event, if he were holder than 12 years of age, will attribute the authority to decide to the father or the mother, without a subsequent right to appeal..."

The last paragraphs states the following: "if the parents live separately, the parental authority will be exercised by the one with whom the child lives. However, the Judge may, upon reasoned request by the other parent and in the interest of the child, attribute parental authority to the requesting parent so that said authority can be exercised jointly with the other parent or so that the functions inherent in the exercise thereof may be distributed between the father and the mother."

Decisions in the case of separated parents:

- Regarding ordinary decisions that may have to be made regarding the minor, they will be taken by the parent who has guardianship and custody.
- Regarding extraordinary decisions, such as those related to the minor's health, the decision will be made jointly. In the event of disagreement, the parent who has guardianship and custody of the minor will resort to a judge. In this case, it is advisable to provide a medical report that records the need to apply a certain treatment or treatments in order to help the court make a decision.

# 10.2. Psychiatric hospitalisation of minors

Article 211 of Organic Law 1/1996 of 15 January, on the Legal Protection of Minors and Partially Amending the Civil Code and the Civil Procedure Act, contained provisions relating to "commitment due to a mental disorder of persons who are not in condition to decide for themselves". This article has been repealed, and the precepts pertaining to the commitment procedure are contained in Law 1/2000 of 7 January, on Civil Procedure, and are set forth in Article 763. This article is also applicable to the hospitalisation of minors for reasons of a mental disorder, but in this case Article 763.2 states that commitment will take place at a mental health institution that is suitable to the minor's age, subject to a report on the minor from the healthcare services.

Hospitalisation requires court authorisation, which will be prior to commitment, unless there are urgent reasons that make it necessary before receiving authorisation, in which case the head of the centre will, within a period of 24 hours, report to the competent court, which will have to ratify the measure within 72 hours after having become aware of the commitment.

### Who can request involuntary hospitalisation?

The law does not make provisions about who can request involuntary commitment, and the fact is that anyone can inform the public prosecutor's office or the court about the existence of an individual for whom this measure may be required because they put themselves or third parties at risk. Nevertheless, the law establishes two groups of people who are bound to request involuntary commitment: guardians with respect to their wards and parents with respect to their children subject to parental authority.

The most recent medical documentation available is submitted with the request for involuntary commitment. It is not necessary for the reporting doctor to be a specialist in psychiatry, but he must state the need for the measure.

#### Summary of legal aspects

**Informed consent** is understood as a patient's free, voluntary, and conscientious agreement, manifested in full use of the patient's faculties, after having received suitable information so that an action affecting the patient's health can take place.

**Informed consent by representation** must be obtained for minors, although taking into account the opinion of a minor who is age 12 or older.

For **adolescents who have turned 16 years of age**, it will not be necessary to provide informed consent by representation, although in serious situations the parents will be informed and their opinion will be taken into account for taking decisions.

#### It will not be necessary to obtain informed consent:

- When there is a risk to public health because of health reasons established by law.

- When there is serious, immediate risk to the physical or mental integrity of the patient and it is not possible to get their authorisation.

The **holder of the right to information** is the patient, and the patient will be informed appropriately according to their ability to comprehend.

When a patient lacks the ability to understand the information due to their physical or mental state, the information will be provided to the people related to the patient in fact or by blood.

A patient's right to healthcare information can be limited by the proven existence of a state of therapeutic need.

Consent will be **verbal** as a general rule. However, it will be given **in writing** in the following cases: surgical intervention, invasive diagnostic or therapeutic procedures, and, in general, for applying procedures that involve risks or inconveniences of evident and foreseeable negative repercussion to the patient's health.

Court authorisation will be **required for hospitalisation because of a mental disorder** of a person who is not capable of deciding for themselves, even though they may be subject to **parental authority**.

This authorisation **will be prior to commitment**, unless for urgent reasons, it is necessary to take the measure immediately, which must be reported as soon as possible to the court and in any event within a period of 24 hours.

In any event, minors will be committed at a mental health institution that is suited to their age, subject to a report on the minor from the healthcare services.

Decisions in the case of **separated parents**:

- Ordinary decisions: the parent who has guardianship and custody.
- Regarding extraordinary decisions, such as those related to the minor's health, the decision will be made jointly.

In the event of disagreement, the parent who has guardianship and custody of the minor will resort to a judge. In this case, it is advisable to provide a medical report that records the need to apply a certain treatment or treatments in order to help the court make a decision.

# 11. Quality indicators

### Questions to be answered:

• What indicators allow monitoring quality in the management of depression in children and adolescents?

After drafting a CPG, it is important to know if the expected objectives are reached by complying with its recommendations. A series of indicators of apparent validity, reliability, and feasibility have therefore been designed for the purpose of evaluating both the healthcare that is given to a patient with depression and the possible impact of implementing the guideline.

The proposed indicators are listed and described below. They are quantitative measures that can be used as a guide and that, obtained with certain frequency, will allow clinicians and managers to analyse their evolution over time.

Area	Focus of the assessment	Indicator name
Diagnosis	Process	Diagnostic confirmation of major depression.
Treatment	Process	Psychotherapeutic treatment in mild major depression.
Treatment	Process	Pharmacological treatment in mild major depression.
Treatment	Process	Initial treatment with an SSRI in moderate or severe major depression.
Treatment	Process	Initial treatment with psychotherapy in moderate major depression.
Treatment	Outcome	Maintenance of pharmacological treatment in moderate or severe major depression.
Treatment	Outcome	Monitoring of the appearance of adverse effects with pharmacological treatment.
Diagnosis	Process	Specialised assessment after suicidal behaviour.
Diagnosis	Process	Assessment of the risk of suicide in primary care.

### **Proposed indicators:**

Indicator name	1. DIAGNOSTIC CONFIRMATION OF MAJOR DEPRESSION
Justification	Before starting treatment for major depression, the diagnosis must be established through a clinical interview and must not be derived solely from questionnaires or semi-structured interviews. Specific techniques should occasionally be used, both verbal and non-verbal, due to the existence of cognitive limitations and verbal limitations at these ages. This indicator allows monitoring the degree of treatment of non-confirmed episodes of major depression.
Formula	Total of children and adolescents in treatment with diagnostic confirmation of major depression made in specialised mental healthcare. 
	No. of children and adolescents in treatment due to a diagnosis of major depression.
Description of terms	Child: for the purpose of this guideline, children are considered those between 5 and 11 years of age.
	Adolescent: for the purpose of this guideline, adolescents are considered those between 12 and 18 years of age.
	<b>Diagnosis of major depression</b> : written record of the diagnosis in the patient's medical history that he suffered from an episode of a major depressive disorder in the time period of reference (prevalent cases).
	Diagnostic confirmation: made by clinical diagnosis and according to appropriate diagnosis criteria at a specialised mental healthcare service.
	Patients in treatment: the patient receives any of the duly validated treatments.
	Patient's medical history: it will be considered the information coming from the medical history of primary and/or hospital care and on paper support and/or in electronic format.
Geographic area and time period of reference	The geographic area of reference will be indicated, and the patients diagnosed in the period of reference will be included, generally less than 12 months.
Exclusion criteria	Patients over 18 years of age, patients who do not reside in the geographic area of study, patients who do not receive treatment, and those who, despite having a recorded history of diagnosed major depression, have not had an active episode in the period of study will be excluded.
Type of indicator	Process.
Data sources	Patient's medical history.

Indicator name	2. PSYCHOTHERAPEUTIC TREATMENT IN MILD MAJOR DEPRESSION
Justification	Some psychotherapeutic treatments have proved that they play a relevant role in the treatment of mild major depression. Psychological therapy is recommended for a period of 8 to 12 weeks. This indicator allows monitoring the degree of coverage of psychotherapeutic treatment in mild major depression.
Formula	Number of children and adolescents diagnosed with mild major depression who receive psychotherapeutic treatment.
	Total number of children and adolescents diagnosed with mild major depression recorded in their medical history.
Description of terms	Child: for the purpose of this guideline, children are considered those between
	5 and 11 years of age.
	Adolescent: for the purpose of this guideline, adolescents are considered those between 12 and 18 years of age.
	Recorded diagnosis of major depression: written record in the patient's medical history that a new diagnosis of a mild major depressive disorder was made in the time period of reference. New episodes in patients with a prior history of major depression will also be counted.
	Patients treated with psychotherapy: those who receive any of the duly validated treatments during a period of 8 to 12 weeks.
	Patient's medical history: it will be considered the information coming from the medical history of primary and/or hospital care and on paper support and/or in electronic format.
Geographic area and time period of reference	The geographic area of reference will be indicated, and the patients diagnosed in the period of reference will be included, generally less than 12 months.
Exclusion criteria	Patients under 18 years of age and patients not residing in the geographic area of the study are excluded.
Type of indicator	Process.
Data sources	Patient's medical history.

Indicator name	3. PHARMACOLOGICAL TREATMENT IN MILD MAJOR DEPRESSION
Justification	In general, antidepressant drugs should not be used for the initial treatment of children and adolescents with mild depression. This indicator allows monitoring the degree of coverage of pharmacological treatment in mild major depression.
Formula	Number of children and adolescents diagnosed with mild major depression who are treated with antidepressant drugs in the initial treatment. 
	Total number of children and adolescents diagnosed with mild major depression.
Description of terms	Child: for the purpose of this guideline, children are considered those between 5 and 11 years of age.
	Adolescent: for the purpose of this guideline, adolescents are considered those between 12 and 18 years of age.
	Diagnosis of recorded mild major depression: written record in the patient's medical history that a new diagnosis of a mild major depressive disorder was made in the time period of reference. New episodes in patients with a prior history of major depression will also be counted.
	Patients with pharmacological treatment: those who receive any of the drugs recommended for the treatment of depression.
	Patient's medical history: it will be considered the information coming from the medical history of primary and/or hospital care and on paper support and/or in electronic format.
Geographic area and time period of reference	The geographic area of reference will be indicated, and the patients diagnosed in the period of reference will be included, generally less than 12 months.
Exclusion criteria	Patients under 18 years of age and patients not residing in the geographic area of the study are excluded.
Type of indicator	Process.

Data sources	Patient's medical history.
Indicator name	4. INITIAL TREATMENT WITH AN SSRI IN MODERATE OR SEVERE MAJOR DEPRESSION
Justification	Of the different antidepressive drugs that exist, SSRIs have been shown to be the most effective in the treatment of depression in children and adolescents. This indicator allows monitoring the degree of coverage of initial treatment with an SSRI in moderate or severe major depression.
Formula	Number of adolescents diagnosed with moderate or severe major depression who are treated with SSRIs in the first attempt.
	x 100
	Total number of adolescents diagnosed with moderate or severe major depression.
Description of terms	Adolescent: for the purpose of this guideline, adolescents are considered those between 12 and 18 years of age.
	Recorded diagnosis of moderate or severe major depression: written record in the patient's medical history that a new episode of a moderate or severe major depressive disorder was diagnosed in the time period of reference. New episodes in patients with a prior history of major depression will also be counted.
	Patients on pharmacological treatment with an SSRI: those who receive any of the SSRI drugs recommended for the treatment of depression.
	Patient's medical history: it will be considered the information coming from the medical history of primary and/or hospital care and on paper support and/or in electronic format.
Geographic area and time period of reference	The geographic area of reference will be indicated, and the patients diagnosed in the period of reference will be included, generally less than 12 months.
Exclusion criteria	Patients under 18 years of age and patients not residing in the geographic area of the study are excluded.
Type of indicator	Process.
Data sources	Patient's medical history.

Indicator name	5. INITIAL TREATMENT WITH PSYCHOTHERAPY IN MODERATE MAJOR DEPRESSION
Justification	Whenever possible, it is advisable to start treatment for moderate major depression in children and adolescents using psychotherapy for at least 8 to 12 weeks. Cognitive behavioural therapy is the psychotherapeutic mode that has demonstrated the best outcomes. This indicator allows monitoring the degree of coverage of initial treatment with psychotherapy for moderate major depression.
Formula	Number of children and adolescents diagnosed with moderate major depression who are treated with psychotherapy in the initial treatment.
	Total number of children and adolescents diagnosed with moderate major depression.
Description of terms	Child: for the purpose of this guideline, children are considered those between 5 and 11 years of age.
	Adolescent: for the purpose of this guideline, adolescents are considered those between 12 and 18 years of age.
	Recorded diagnosis of moderate or severe major depression: written record in the patient's medical history that a new episode of a moderate major depressive disorder was diagnosed in the time period of reference. New episodes in patients with a prior history of major depression will also be counted.
	Patients treated with psychotherapy: those who receive any of the duly validated treatments.
	Patient's medical history: it will be considered the information coming from the medical history of primary and/or hospital care and on paper support and/or in electronic format.
Geographic area and time period of reference	The geographic area of reference will be indicated, and the patients diagnosed in the period of reference will be included, generally less than 12 months.
Exclusion criteria	Patients under 18 years of age and patients not residing in the geographic area of the study are excluded.
Type of indicator	Process.
Data sources	Patient's medical history.

Indicator name	6. MAINTENANCE OF PHARMACOLOGICAL TREATMENT IN MODERATE OR SEVERE MAJOR DEPRESSION
Justification	In major depression, pharmacological treatment with fluoxetine should be continued for at least 6 months as from remission of the depressive symptoms, at the same dose at which the remission was achieved. This indicator allows monitoring the degree of maintenance of pharmacological treatment after remission of the depressive symptoms in moderate or severe major depression.
Formula	Number of adolescents with moderate or severe major depression who maintain treatment with an SSRI during at least six months after remission of the depressive symptoms.
	x 100 Total number of adolescents diagnosed with moderate or severe major depression in treatment with an SSRI.
Description of terms	Adolescent: for the purpose of this guideline, adolescents are considered those between 12 and 18 years of age.
	Recorded diagnosis of moderate or severe major depression: written record in the patient's medical history that a new episode of a moderate or severe major depressive disorder was diagnosed in the time period of reference. New episodes in patients with a prior history of major depression will also be counted.
	Patients on pharmacological treatment with an SSRI: those who receive any of the SSRI drugs recommended for the treatment of depression.
	Maintenance of treatment: it will be considered that a patient has maintained treatment for 6 months and that the treatment has been adequate if it is thus recorded in the medical history.
	Patient's medical history: it will be considered the information coming from the medical history of primary and/or hospital care and on paper support and/or in electronic format.
Geographic area and time period of reference	The geographic area of reference will be indicated, and the patients diagnosed in the period of reference will be included, generally less than 12 months.
Exclusion criteria	Patients under 18 years of age and patients not residing in the geographic area of the study are excluded.
Type of indicator	Outcome.
Data sources	Patient's medical history.

Indicator name	7. MONITORING OF THE APPEARANCE OF ADVERSE EFFECTS WITH PHARMACOLOGICAL TREATMENT
Justification	Adverse effects can appear at the start of pharmacological treatment. These effects include suicidal ideation or behaviour, which have special significance. This indicator allows monitoring the degree of vigilance of the appearance of adverse effects during the first four weeks of treatment with an SSRI.
Formula	Number of adolescents with moderate or severe major depression who start treatment with an SSRI and who are monitored for the appearance of adverse effects during the first four weeks.
	Total number of adolescents diagnosed with moderate or severe major depression who start treatment with an SSRI.
Description of terms	Adolescent: for the purpose of this guideline, adolescents are considered those who are between 12 and 18 years of age.
	<b>Recorded diagnosis of depression</b> : written record in the patient's medical history that a new diagnosis of a mild major depressive disorder was made in the time period of reference. New episodes in patients with a prior history of major depression will also be counted.
	Patients on pharmacological treatment with an SSRI: those who receive any of the SSRI drugs recommended for the treatment of depression.
	Adverse effect: any undesirable disorder or unexpected toxic disorder that is included in the patient's medical history and that is derived from pharmacological treatment with an SSRI and not from the patient's depressive disorder. Suicidal ideation or behaviour require special mention.
	Patient's medical history: it will be considered the information coming from the medical history of primary and/or hospital care and on paper support and/or in electronic format.
Geographic area and time period of reference	The geographic area of reference will be indicated, and the patients diagnosed in the period of reference will be included, generally less than 12 months.
Exclusion criteria	Patients under 18 years of age and patients not residing in the geographic area of the study are excluded.
Type of indicator	Outcome.
Data sources	Patient's medical history.

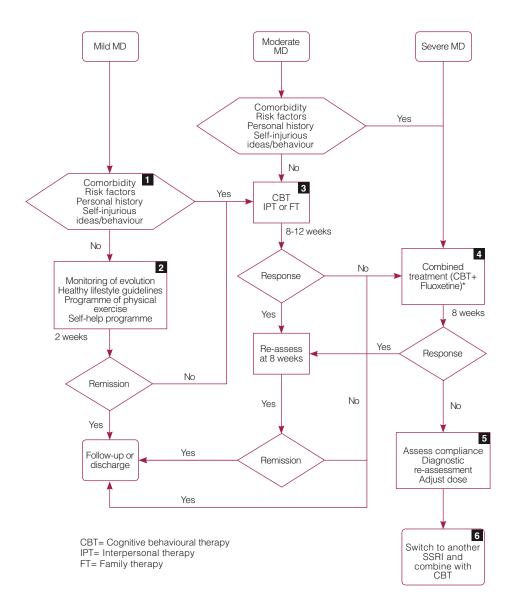
Indicator name	8. SPECIALISED ASSESSMENT AFTER SUICIDAL BEHAVIOUR
Justification	After suicidal behaviour, once the child or adolescent has made contact with the healthcare system, a psychiatric or psychosocial assessment must be performed on the spot, thereby assessing aspects such as the method used, the medical severity, the degree of planning of the suicidal behaviour, or the existence or not of subsequent regret. This indicator allows monitoring the degree of specialised assessment (psychiatric or psychosocial) of children and adolescents who have shown suicidal behaviour.
Formula	Number of children and adolescents given care after suicidal behaviour, with immediate and suitable, specialised psychiatric and psychosocial assessment.
	x 100
	Total number of children and adolescents given care after suicidal behaviour.
Description of terms	Child: for the purpose of this guideline, children are considered those between 5 and 11 years of age.
	Adolescent: for the purpose of this guideline, adolescents are considered those who are between 12 and 18 years of age.
	Suicidal behaviour: a spectrum of behaviours, with a fatal outcome or not, which include a suicide attempt or suicide.
	<b>Immediate assessment</b> : that which takes place within the first twenty-four hours as from the start of healthcare, as long as the patient's condition allows.
	Patient's medical history: it will be considered the information coming from the medical history of primary and/or hospital care and on paper support and/or in electronic format.
Geographic area and time period of reference	The geographic area of reference will be indicated, and the patients diagnosed in the period of reference will be included, generally less than 12 months.
Exclusion criteria	Patients under 18 years of age and patients not residing in the geographic area of the study are excluded.
Type of indicator	Process.
Data sources	Patient's medical history.

Indicator name	9. ASSESSMENT OF SUICIDE RISK IN PRIMARY CARE
Justification	Primary care professionals should know the main risk factors of suicidal behaviour and ideation in children and adolescents, and it would be advisable to assess the risk profile in those patients with depression, always asking about suicidal ideas and plans and including in the medical history all aspects related to the method, the planning, and the intent. This indicator allows monitoring the number of children and adolescents diagnosed with major depression in which the risk of suicide is assessed in primary care.
Formula	Number of children or adolescents diagnosed with major depression in which the risk of suicide is assessed in primary care and is recorded in the medical history.
	x 100
	Total number of children and adolescents diagnosed with major depression.
Description of terms	Child: for the purpose of this guideline, children are considered those between 5 and 11 years of age.
	Adolescent: for the purpose of this guideline, adolescents are considered those who are between 12 and 18 years of age.
	Recorded diagnosis of depression: written record in the patient's medical history that a new diagnosis of a major depressive disorder was made in the time period of reference. New episodes in patients with a prior history of major depression will also be counted.
	Assessment of the suicide risk: by using psychometric assessment instruments, validated in our context.
	Patient's medical history: it will be considered the information coming from the medical history of primary and/or hospital care and on paper support and/or in electronic format.
Geographic area and time period of reference	The geographic area of reference will be indicated, and the patients diagnosed in the period of reference will be included, generally less than 12 months.
Exclusion criteria	Patients under 18 years of age and patients not residing in the geographic area of the study are excluded.
Type of indicator	Process.
Data sources	Patient's medical history.

# 12. Diagnostic and therapeutic strategies

The algorithm for handling major depression in childhood and adolescence is presented, divided into mild, moderate, and severe. Those aspects that have been considered to be most relevant are summarised in the algorithm notes.

# Therapeutic algorithm



\* According to the patient's clinical profile, another SSRI could be selected (sertraline, citalopram, or escitalopram).

# Algorithm notes

### GENERAL

- The management of depression must always include standard clinical care:
  - Psychoeducation.
  - Individual and family support.
  - Problem-solving techniques.
  - Coordination with other professionals.
  - Attention to other comorbidities.
  - Regular monitoring of the mental state.
- Hospital admission must be assessed in the following cases:
  - High risk of suicide.
  - Severe depression accompanied by psychotic symptoms.
  - Severe comorbidity.
  - Severe depression with the absence of social/family support.

## MILD MAJOR DEPRESSION

• The presence of comorbidity and of risk factors has to be assessed, as well as personal antecedents for referral to specialised mental healthcare.

Comorbidity	Risk factors and personal history
<ul> <li>Separation anxiety</li> <li>Other anxiety disorders</li> <li>ADHD</li> <li>Dysthymia</li> <li>Substance abuse</li> <li>Behaviour disorders</li> <li>Social phobia</li> </ul>	<ul> <li>Genetic factors, family history.</li> <li>Parental mental illness.</li> <li>Female sex and post-puberty age.</li> <li>History of depressive symptoms.</li> <li>History or situation of physical, emotional, or sexual abuse.</li> <li>Negative affectivity.</li> <li>Ruminative thoughts.</li> <li>Parental conflicts.</li> <li>Family de-structuring.</li> <li>Bullying at school.</li> <li>Consumption of toxic substances.</li> </ul>
Suicidal ideation/behaviour	
<ul> <li>Always ask about possible pas</li> </ul>	t and present self-injurious ideation or behaviour

Iways ask about possible past and present, self-injurious ideation or behaviour.

If applicable, include in the medical history all aspects related to the method, planning, and intent; the presence of the feeling of hopelessness; and the medical severity of the attempt.

In the absence of criteria for referral to specialised mental healthcare, it is advisable to monitor the clinical evolution in primary care during a period of two weeks:

### 2. Monitoring of evolution in primary care

Offer active support to the child/adolescent and to their families (appendix of information for the patient and relatives).
 Inform about the benefits of a balanced diet, about maintaining a pattern of suitable sleep, and about regular exercise.
 Other self-help interventions.

# MODERATE MAJOR DEPRESSION

- Every child or adolescent with moderate depression must be referred to a healthcare unit specialised in child and adolescent mental health.
- In the absence of comorbidity, depression risk factors, personal history, and self-injurious ideas/behaviour, it is advisable to start treatment with psychotherapy:

3. Psychological treatment

- Performed by trained professionals.

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- Number of sessions and duration of suitable treatment: 8 to 12 weeks (weekly sessions).
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- Regular follow-up on the clinical evolution of the child or adolescent.

- In children under 12 years of age, CBT or FT is recommended; in children over 12 years of age CBT, FT, or IPT.

- For those patients with moderate major depression who do not respond to specific psychological therapy, it is advisable to combine CBT with an SSRI.
- In moderate major depression associated with comorbidity, risk factors, personal history of psychiatric illness, or self-injurious ideas or behaviour, it is advisable to start combined treatment: CBT plus an SSRI.

## SEVERE MAJOR DEPRESSION

• It is advisable to start combined treatment:

### 4. Combined treatment

- Fluoxetine treatment and suitable CBT sessions.

- Especially indicated for cases in which there is a personal or family history of suicidal ideation and/or behaviour.

– In individual cases, pharmacological treatment alone could be used, always associated with standard clinical care. According to the patient's clinical profile, another SSRI could be selected (sertraline, citalopram, or escitalopram).

– Inform about the reason for the prescription, about the expected benefits, about a possible delay in the therapeutic effect, about secondary effects, and about the duration of the treatment.

- Monitor the possible appearance of adverse effects, especially suicidal ideation or behaviour, above all during the first four weeks of pharmacological treatment.

### • In the event of no therapeutic response, assess the following factors:

5. Factors to assess when there is no therapeutic response

- Duration and frequency of the psychotherapy sessions.

- Use of the maximum, effective dose of a therapeutic drug for a suitable period.

– Diagnosis.

- Comorbidity with other mental illnesses or disorders: anxiety, dysthymia, abuse of addictive substances, or personality disorders.

- After reviewing these factors, assess making a switch to another SSRI in combination with CBT.
- 6. Switching to another SSRI and combining with CBT
- Switch to sertraline, citalopram, or escitalopram and combine with CBT.
- Continue with pharmacological treatment for at least 6-12 months as from remission, at the same dose at which remission was achieved.
- Suspend the antidepressant gradually. If symptoms reappear, start pharmacological treatment again.

## 13. Dissemination and implementation

# Formats of the guideline, dissemination and implementation

The CPG consist of two versions, the complete and the summarised versions, in addition to information for patients and a document with methodological material. The complete version, the information for patients, and the methodological material can be accessed through the web pages of avalia-t and GuíaSalud. The dissemination and implementation strategies would be the following:

- Official presentation of the guideline by public health authorities and individual delivery to professionals who are potential users.
- Distribution of the patient guideline.
- Presentation of the guideline in Primary and Specialised Care through interactive chats.
- Dissemination of the guideline electronically on the web pages of the public health services and of the companies involved in the project.
- On-line and/or attended training activities on managing patients with depression.
- Presentation of the guideline in scientific activities (workshops, conferences, meetings).
- Publication of the guideline in medical and psychological journals.
- Establishment of good care criteria for patients with depression in programme contracts and clinical management contracts.
- Establishment of support systems for clinical decisions, which incorporate the guideline and the indicators selected in the computer programme used in primary care.

## 14. Recommendations for future research

Depressive disorders in children and adolescents have been little studied, so during the process of preparing the guideline we have found gaps in knowledge that require future studies.

General recommendations

- Studying the health impact of incorporating help tools in the electronic medical history for diagnosing and treating major depression in children and adolescents.
- Performing epidemiological studies that allow accurately learning about the prevalence of major depression among these age groups in our environment and estimating the percentage of possible undertreatment of the illness.
- Performing studies to determine the degree to which the care that should be considered "standard care" for children and adolescents is implemented in clinical practice.

Etiopathology

- More accurate identification of the processes of vulnerability to and protection from depression, including family history, environment, and family support, as well as stressful life events.
- Promoting studies in the field of molecular genetics in order to increase knowledge about genetic contribution in depressive disorders in children and adolescents.
- Performing studies in order to specify temperamental traits and personality characteristics in children and adolescents with a depressive disorder.

Diagnosis and evolution

- Developing valid and reliable questionnaires that are specifically developed for evaluating depression in children under the age of six and perfecting more accurate assessment instruments.
- Performing research studies on the evolution of depressive disorders in children and adolescents that would allow specifying the interconnections between depression in childhood and the development of disorders in adult life.
- Developing educational programmes so that health professionals (primary care) can detect the presence of a depressive disorder and thus make the necessary interventions or referrals.

Screening

• Studying to see if the introduction of major depression screening programmes for children and adolescents considered to be at risk would facilitate early diagnosis of the illness and improve long-term results.

Suicide

• Studying the possible effect by the media and the Internet on suicidal behaviour in children and adolescents.

• Performing specific studies using suitable methodology to have a better understanding of the influence of antidepressants on suicidal behaviour.

#### Psychotherapy

- Studying the economic impact and the outcome on health from introducing psychotherapeutic educational activities for managing mild depression in primary care.
- Evaluating the efficacy of the different types of psychotherapy in comparison with other therapeutic options, in the long and medium term, by performing comparative studies on patients with different degrees of severity of the illness.
- Identifying the keys or most effective components of psychological therapies.
- Evaluating if there are profiles of depressive symptoms or clinical characteristics that might predict the response to different modes of psychotherapy.
- Performing studies that allow determining the most appropriate duration of psychotherapeutic treatment.
- The need for research on jointly treating parents and youths with depressive disorders.

#### Drugs

- Emphasising independent studies that evaluate the efficacy, the adverse effects, and the optimum duration of the different pharmacological treatments that exist, through studies with long-term follow-up using different age and dose subgroups and with sufficient statistical power to detect relevant clinical differences.
- Performing more studies that allow obtaining definitive conclusions for making clinical decisions, including pharmacological treatment, thereby considering the type and severity of the depression, evolution aspects, suicide risk, and comorbidity, in which the evaluation variables and instruments are more uniform.

Depression that does not respond to treatment

- Studying the most effective therapeutic strategies for depression that does not respond to treatment, including both pharmacological and psychotherapeutic treatments.
- Assessing the efficacy of combining pharmacological treatment with psychotherapeutic treatment for managing resistant depression.

#### Relapses

• Studying the characteristics of patients at a high risk of relapses and performing studies to accurately determine the optimum duration of treatment to prevent them.

#### Self-help

• Developing materials that are adapted to children and adolescents for self-help programmes and testing their efficacy in controlled studies.

#### Support groups

• Determining the role of family support and social support in children and adolescents with major depression.

#### Exercise

• Clinical trials that, differentiating the subgroups of mild, moderate, and severe depression, compare the effects of different forms of physical exercise and clarify the amount and appropriate intensity of the same.

## 15. Appendices

### Appendix 1. Severity criteria according to ICD-10 and DSM-IV-TR

#### Severity criteria of a depressive episode according to ICD-10

#### A. General criteria for depressive episode:

- 1. The depressive episode must last at least two weeks.
- 2. The episode cannot be attributed to the abuse of psychoactive substances or to an organic mental disorder.

#### B. Presence of at least two of the following symptoms:

- 1. Clearly abnormal depressive mood for the subject, present during most of the day and almost every day, which is altered very little by environmental circumstances and which persists for at least two weeks.
- 2. Marked loss of interest or ability to enjoy activities that were previously pleasurable.
- 3. Lack of vitality or increase of fatigability.

#### C. Moreover, one or more symptoms of the following list must be present so that the sum total is at least 4:

- 1. Loss of confidence and self-esteem and feelings of inferiority.
- 2. Disproportionate self-reproaches and feelings of excessive guilt or inadequacy.
- 3. Recurrent thoughts of death or suicide or any suicidal behaviour.
- 4. Complaints about or decrease of the ability to concentrate and think, accompanied by a lack of decision and vacillation.
- 5. Changes of psychomotor activity, with agitation or inhibition.
- 6. Sleep alterations of any kind.
- 7. Changes of appetite (decrease or increase), with the corresponding weight change.

#### D. There may or may not be the somatic syndrome\*:

**Mild depressive episode:** Two or three of the symptoms of criteria B are present. A person with a mild episode is probably capable of continuing with the majority of their activities.

**Moderate depressive episode:** At least two of the symptoms of criteria B are present, in addition to symptoms of criteria C until there is a minimum total of 6 symptoms. A person with a moderate episode will probably have difficulties continuing with their ordinary activities.

**Severe depressive episode:** There must be 3 symptoms of criteria B, in addition to symptoms of criteria C until there is a minimum of 8 symptoms. People with this type of depression have symptoms that are marked and distressing, mainly the loss of self-esteem and feelings of guilt or worthlessness. Suicidal thoughts and acts are common, and a number of somatic symptoms are present. Psychotic symptoms can appear, such as hallucinations, delusions, psychomotor retardation or severe stupor. In this case, it is called a severe depressive episode with psychotic symptoms. The psychotic phenomena such as hallucinations or delusion may or may not be mood-congruent.

Source: WHO. Tenth Revision of the International Classification of Diseases. ICD-10. Mental and behavioural disorders. Madrid: Meditor 1992

\*Somatic syndrome: see Table 4 (page 42).

## DSM-IV-TR criteria for severity/psychotic/remission specifiers for current (or most recent) major depressive episode

Note: Coding in the fifth digit. Mild, moderate, severe without psychotic features and severe with psychotic features can be applied only if the major depressive episode criteria are currently met. In partial remission and in complete remission, they can be applied to the most recent major depressive episode of the major depressive disorder and to a major depressive episode of bipolar I or II disorder only if it is the most recent type of mood episode.

**Mild:** Few, if any, symptoms in excess of those required to make the diagnosis, and the symptoms result in only minor impairment of occupational functioning or in the usual social activities or relationships with others.

Moderate: Symptoms or functional impairment between "mild" and "severe"

**Severe without psychotic features:** Several symptoms in excess of those required to make the diagnosis, and symptoms that markedly interfere with occupational functioning or the usual social activities or relationships with others.

Severe with psychotic features: Delusions or hallucinations. If possible, specify whether the psychotic features are moodcongruent or mood-incongruent.

- a) Mood-congruent psychotic features: Delusions or hallucinations whose content is entirely consistent with the typical depressive themes of personal inadequacy, guilt, disease, death, nihilism or deserved punishment.
- b) Mood-incongruent psychotic features: Delusions or hallucinations whose content does not involve typical depressive themes of personal inadequacy, guilt, disease, death, nihilism or deserved punishment. Included are such symptoms as persecutory delusions (not directly related to depressive themes), thought insertion, thought broadcasting and delusions of control.

**In partial remission:** There are symptoms of a major depressive episode, but the full criteria are not met, or there is a period without any significant symptoms of a major depressive episode lasting less than 2 months following the end of the major depressive episode. (If the major depressive episode was superimposed on dysthymic disorder, the diagnosis of dysthymic disorder alone is given once the full criteria for a major depressive disorder are no longer met.).

**In full remission:** During the past 2 months, no significant signs or symptoms of the disturbance were present. **Unspecified.** 

Source: American Psychiatric Association. DSM-IV-TR. Diagnostic and statistical manual of mental disorders, 4<sup>th</sup> ed. Barcelona: Masson 2003.

#### DSM-IV-TR diagnostic criteria for major depressive disorder, recurrent

A.	Two or more major depressive episodes. Note: to be considered separate episodes, there must be an interval of at least 2 consecutive months in which criteria are not met for a major depressive episode.
B.	The major depressive episodes are not better accounted for by schizoaffective disorder and are not superimposed on schizophrenia, schizophreniform disorder, delusional disorder or psychotic disorder not otherwise specified.
C.	There has never been a manic episode, a mixed episode or a hypomanic episode. Note: This exclusion does not apply if all the manic-like, mixed-like or hypomanic-like episodes are substance or treatment induced or are due to the direct physiological effects of a general medical condition.
lf th	<ul> <li>he full criteria are currently met for a major depressive episode, specify its current clinical status and/or features:</li> <li>Mild, moderate, severe without psychotic features/severe with psychotic features.</li> <li>Chronic.</li> <li>With catatonic features.</li> <li>With melancholic features.</li> <li>With atypical features.</li> <li>With postpartum onset.</li> </ul>
dis	<ul> <li>he full criteria are not currently met for a major depressive episode, specify the current clinical status of the major depressive order or features of the most recent episode: <ul> <li>In partial remission, in full remission.</li> <li>Chronic.</li> <li>With catatonic features.</li> <li>With melancholic features.</li> <li>With atypical features.</li> <li>With postpartum onset.</li> </ul> </li> <li>becify: <ul> <li>Longitudinal course specifiers (with and without interepisode recovery).</li> <li>With seasonal pattern.</li> </ul> </li> </ul>

Source: American Psychiatric Association. DSM-IV-TR. Diagnostic and statistical manual of mental disorders, 4<sup>th</sup> ed. Barcelona: Masson 2003.

Appendix 2. Information for patients and relatives

## DEPRESSION OM CHILDHOOD AND ADOLESCENCE

Information for patients, relatives, and the general public

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The development group of the Clinical Practice Guideline would like to thank everyone who has cooperated on preparing this material.

This information has been prepared using knowledge based on the scientific literature available at the time of publication.

Illustrations by Jose Luis Iglesias Diz.



#### 1. Introduction

## This information is designed for people who want to know what depression is and what to do about it.

Depression is one of the most frequent mental disorders. It is estimated that it affects 3.4-5% of adolescents in Spain.

Young people who need treatment and their relatives end up not seeking help because of unfamiliarity with depression in childhood and adolescence and because of a lack of open communication about this subject.

## If you think that you or someone you know has depression, take it seriously and seek help.

This document provides you with information and useful help. The guide focuses on depression (major depressive disorder) in children and adolescents, and it encompasses mild, moderate, and severe depression.

#### 2. What is depression?

#### Depression is much more than being down.

Although most of us experience feelings of sadness once in awhile, for some people these feelings do not disappear, and they are accompanied by other symptoms that cause distress or difficulties at managing a person's daily life: it interferes with a person's ability to think, to learn, and to socially and academically develop. These people may have an illness called depression.

#### What are the symptoms of depression?







The symptoms of depression can vary from one child to the next. The basic symptoms are the following:

- A "down" mood, feeling sad most of the time, or having feelings of hopelessness.
- Loss of interest in activities that used to be enjoyed, such as playing with a favourite toy or with friends, and wanting to be alone and becoming bored.

Other possible symptoms that can arise in children and adolescents are the following:

- Irritability (become easily angered).
- Feeling like crying for no apparent reason.
- Loss of energy or tiredness.
- Sleep problems: having problems falling asleep at night or not wanting to get up in the morning.
- An increase or decrease in appetite.
- Difficulty concentrating or memory problems, which affect school performance.
- Feelings of uselessness or guilt.
- Negative thoughts, excessive self-criticism.
- Suicidal ideas: wanting to die or go away forever.
- Physical symptoms such as headaches, heart palpitations, or abdominal pain. Sometimes these symptoms are the only reason for seeing a doctor.
- Constant worrying, which can cause anxiety or unfounded fears.

**Depression can make the smallest task seem like climbing a mountain.** However, many children or adolescents with depression are going to deny being sad, or they won't even be aware of being sad, which does not mean that they are not depressed.

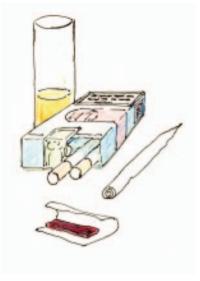


#### 3. What causes depression?

Various events can act as triggers of depression. Conversely, sometimes depression appears without any apparent external cause. In some cases, there are families in which several members suffer from depression. In these cases, hereditary factors are considered to be important.

The brain uses messengers called neurotransmitters to send signals to different parts of our body. They are also used by different parts of the brain to communicate with each other. An alteration of neurotransmitter function has an influence on mood, and it is at this level where medication works.

#### Some circumstances that increase the risk of depression are the following:



- School problems.
- Depression in parents.
- Experiences of loss or stress, including the death of loved ones (parents), loneliness, changes in lifestyle (moving to another country), or problems with interpersonal relations (friends).
- Conflictive situations in the surrounding environment (for example, at school, with the family, or different treatment because of race).
- Having suffered physical or psychological traumas: harassment, abuse, negligent care.
- Serious physical illness or chronic health problems.
- Some medicines (you can consult your doctor about this).
- Alcohol abuse or consuming other drugs does not help: it worsens depression.

Having depression is no one's fault.

## Positive experiences such as a close relationship with friends, family, or companions tend to help prevent depression.

#### 4. Types of depression

Some people have an episode of major depression only once in their life. However, about half of the people who have had one episode of depression have at least one more. The duration of the depressive episode is variable, although most feel better after 4 to 6 months. In some cases, the symptoms can last for much longer.

#### The severity of depression varies enormously.

Some people only have a few symptoms that partially affect their daily life or limit it in only a specific aspect. This is called mild depression. Other people can have many more symptoms that eventually prevent them from leading a normal life; in this case, the depression is qualified as moderate or severe.

#### What's the difference between depression in children and in adults?

Children or adolescents are more frequently prone to be irritable rather than sad or without energy. It is likely that they will go to a doctor's visit because of physical complains (somatisation disorder/change in appetite) or a decrease in school performance. Parents complain about a loss of interest in playing and friends. They frequently refer to the facial expressions or posture of their children: they see them as having a "worried", "haggard", or "sad" look. In adolescents, depression can coincide with recent changes in personality and behaviour, increased rebelliousness, disobedience, the onset of consuming drugs and alcohol, and other risky behaviour.

#### 5. What can I do if I think that I have depression?

## If you think that you may be depressed, ask for help as soon as possible.

There's no reason why you have to face depression alone. You can do any of the following things:

- Talk with someone you trust about your feelings. For example, with your parents, someone in your family, a friend, or a teacher.
- Talk with your doctor or another healthcare professional. This is how you can get a suitable diagnosis, learn about the treatment options, and participate in the decision-making process about treatment.



- If you have thoughts related to hurting yourself, it is a good idea to talk with someone you trust who can be with you until you feel better. You can also call an emergency telephone number (061, 112), seek medical help at the nearest location, or request specific telephone support for patients with suicidal ideas (consult the additional information section).
- Learn more about depression so that you can better understand your symptoms and their meaning.

## If you talk with someone and feel that they don't understood you, seek out someone else with whom you can talk.



It can also help if you improve your overall health through daily physical exercise and a healthy diet.

Some forms of self-help are described on the following pages. It can be very hard to make some of these changes when you are depressed, so turn to friends and family to get their support.

#### Don't think that it's simply a question of getting tough, and don't resort to alcohol or drugs; instead of helping you, these things just sink you lower.

Alcohol and drugs can imitate or cause symptoms of a mental disorder. Substance abuse can even make diagnosis difficult, and it can be difficult to separate the problems caused by alcohol or drugs from those caused by depression.

6. What can the healthcare system offer me if I have depression? **Information and support** 

If you suffer from depression, healthcare professionals can provide you with information and support. This information refers to the nature, course, and possibilities of treatment, as well as information regarding community and self-help resources.



Given the existence of different therapeutic options, it is a good idea to have sufficient information about the illness and the proposed treatment before starting it.

It is important that you feel involved in any decision and that you communicate your preferences to the professional who takes care of you so that those preferences can be taken into account. Professionals will use language that you can understand, and they will avoid medical jargon as much as possible. If you don't understand something, it is preferable to ask rather than to have any doubts.

#### Confidentiality

Meetings between a patient with depression and healthcare professionals are governed by rules that protect confidentiality, except when you place your life or others' lives in danger. It is important that you be sincere and that there be fluid communication between a professional you trust and you.

#### Your family doctor

Your family doctor is probably the first person in the healthcare service whom you can contact due to your depression.

He or she will ask you about the following:

- How you feel.
- Other illnesses that you might have.
- How you are doing at home and at school.
- How you get along with your parents, other family members, and friends.

You will both also talk about your feelings, thoughts, behaviours, recent changes in your life or physical health, and any family history of mental disorders.

He will ask you and your parents about problems with alcohol and other drugs, if you have been subject to bullying or abuse, if you hurt yourself, and if you think about death.

The healthcare professional will interview you and your family to offer everyone the opportunity to express their feelings, but he will give you the possibility of talking in private and confidentially.

It is important that you be as open as possible about the things that you consider important in order to understand what is happening to you.

As we have already seen, due to the fact that depression has different causes and different symptoms, every person with depression receives personalised treatment.

#### Specialised mental health services



Your doctor may think that you need care from a mental health specialist, especially if your depression is moderate or severe, if it does not respond to treatment, or if there have been repeated episodes. Only very occasionally are people with depression hospitalised.

#### Can I choose my treatment for depression?

Yes, you can normally choose the treatment. But it depends on your age and whether or not you understand the information about treatment that the healthcare professional gives to you.

After explaining the treatments and explaining which one is the best for you, you can state which one you prefer.

Your parents' approval may be required if you are very young or if you don't understand the information about the treatments.

Sometimes professionals and your parents may think that you need a treatment that you particularly don't want.

Medication cannot be mixed with drugs and alcohol. Taking drugs and alcohol will cause medication to be ineffective and cause the appearance of new symptoms or adverse effects, including serious injury or death.

#### 7. How is depression treated?

## There are several treatments that can help you and that have proved to be effective in depression

They include the following:

- Self-help techniques.
- Psychological therapies.
- Pharmacological therapy.

**Mild depression** can improve on its own without treatment or with counselling on how to face problems. Self-help and psychological therapies are effective.

**For moderate-severe depression**, the most recommendable treatment is medication in combination with psychological therapy.

The most adequate treatment depends on each specific case and on your preferences. The main thing is to use a treatment that works and to give it the necessary time for that to happen.



It is important for you to be in touch with your primary care physician, especially if the treatment doesn't seem to help you improve. The first treatment proposed does not always produce the expected results.

#### **SELF-HELP TECHNIQUES**

#### Day planning

When someone experiences feelings of sadness or depression, it can be truly difficult to get going to do anything. Nevertheless, the more active you are, the greater the likelihood that you will feel better.

The following advice is frequently useful:

- You can make a list of the activities that you propose to do every day (with someone's help, if necessary).
- Keep this list handy.
- At the beginning, don't be very demanding on yourself.
- It is important to do a gratifying activity at least once a day.
- Plan on doing some physical activity every day.
- If you miss an item in your plan, jump to the next activity.
- If you don't feel like doing anything at all, plan on doing an activity with other people.
- Observe how your mood changes as you progress, and share these observations with others.

#### Stress management

- If problems seem to suffocate you, think about one at a time.
- Enjoy the small things, and save time for yourself.
- Learn to recognise when you need to stop; we all have a limit.
- Don't be too harsh on yourself.



#### **Physical activity**

- Increase your physical activity, and get fresh air and natural light every day.
- A regular routine of vigorous exercise is ideal, but any physical activity is better than none.
- It's possible that a group activity may make it easier to meet this objective.
- If you have doubts about the most appropriate physical exercise for you, check with your doctor.

#### **Sleep problems**

- Keep a routine for your sleep times.
- Do something relaxing before going to bed.
- Avoid naps or sleeping during the day; they can aggravate the problem.
- Avoid or reduce stimulants (coffee, energy drinks, or drinks with cola, in addition to tobacco or alcohol, especially after sundown).
- If you can't sleep, get up and go to another room (you can watch television or read) until you feel sleepy. If you stay in bed, you can concentrate on listening to the radio at a very low volume and with the light off.
- Don't fall asleep on the sofa.

#### Abuse of alcohol and other drugs

- Alcohol abuse or consuming other drugs can make your depression get worse and cause other problems. Don't choose to consume alcohol or drugs to escape your problems. Ask for help.
- Ask for help from your friends, family, or doctor in order to decrease consumption or reach abstinence.
- There are healthcare aids that are specialised in treating these problems, if you need them.



#### **PSYCHOLOGICAL THERAPIES**

Mental health specialists can propose treatments that have been specifically designed for people with depression, such as cognitive behavioural therapy and interpersonal therapy. Research has shown that these therapies are effective and can help to reduce the appearance of new episodes in the future (recurrence).

In psychological therapy, you will work with a specialist who will listen to you and help you with strategies to improve the depression, and the specialist will teach you to have realistic thoughts, how to solve problems, how to make goals to reach, and how to improve relationships with others.

**Cognitive behavioural therapy** focuses on modifying negative thinking styles and behaviour that contribute to triggering and maintaining depression.

**Interpersonal therapy** helps people with depression to identify and manage specific problems in relationships with family, friends, colleagues, and other people.

These therapies are provided by professionals who are trained on these techniques and who are experts at using them, normally clinical psychologists and/or psychiatrists.

#### DRUG THERAPY

The main drugs used in treating depression are called antidepressants. These medicines work by increasing the activity and levels of certain substances in the brain, called neurotransmitters, which help to improve your mood.



#### Most treatments require some time before results are obtained

Before a person starts taking antidepressants, they must take into account that medication requires a certain time to work (several weeks are normally required to experience any improvement and to determine if a drug is useful).

Therefore, you must continue to take the medication as it has been prescribed for you, even if at the beginning you have doubts about its benefits.

Remember that if you are having sexual relations, you should use some type of birth control. Ask your doctor.

#### About the symptoms that are affected

The first symptoms that improve are sleep and appetite problems, then interest in activities and the ability to concentrate. The last symptom to improve is sadness and despondency, which can take several weeks as from the start of treatment (usually, 15 days).

#### What are the possible side effects?

Your doctor can inform you about the side effects that can be expected from the medication: dryness of the mouth, sleep problems, headaches, blurred vision, abdominal complaints, and restlessness. Most are tolerable by almost everyone.

A psychiatrist will see you regularly to check that no other, more serious side effects appear.

In some cases, your doctor may advise you to modify the dose or to switch antidepressants.

Even though antidepressants do not cause an addiction, certain symptoms can be experienced when they are withdrawn. These symptoms can consist of dizziness, nausea, anxiety, and head-

aches. They normally have a mild intensity, although the intensity can sometimes be greater, above all if the medication is interrupted abruptly.

#### How long will you need to take it?

The time period during which treatment with antidepressants is received varies from one person to the next. Normally, it is recommended that medication be maintained for a minimum of 6 months at the same dose at which you reached improvement. It will be withdrawn gradually.

#### What is the risk of not receiving treatment?

Some depressions are especially severe, and not treating them adequately can have very serious consequences such as the following: suicide, school failure, problems in the family and in relations with friends, consumption of alcohol and drugs, and other risky behaviours and food disorders.

Untreated depression is the greatest suicide risk factor.

#### Will medication change me?

You may think that medication is going to make you different from other children your age or that it will change how you are. But this isn't true. Medication will help you to be the same as you were before the depression.

Taking medication is no different from wearing glasses or braces; it's just a tool to help you.

8. How can I help someone with depression?

#### It can be very hard to see that a loved one is depressed. It wouldn't be strange for you to feel very overwhelmed, confused, or embarrassed about what is happening.

Family and friends of people with depression have found the following strategies to be useful:

- Learn about depression, its treatment, and what you can do to help their recovery.
- Consider yourself to be part of the support and treatment team.



- Don't think that a person with depression does not want to improve, even though it may seem like it. Try to see the symptoms for what they are: part of an illness.
- Help them to recognise the sources of stress and to find the most suitable way to take it on. Your cooperation might be necessary to solve some of the problems that especially worry your family member or friend.
- Encourage them to be more active, but without doing so excessively and without being critical or reprimanding, because this can cause things to get worse.
- Help them to lead a healthy life, to do some physical exercise, and to have fun.
- Dedicate part of your time to being with him or her.
- Praise each one of their advances, especially at the beginning and for however small they may be.

- Encourage them to maintain the prescribed treatment and to avoid alcohol and other toxic substances.
- From the outset, take any suicidal thought seriously. Don't be afraid to talk with them openly about this subject. If your family member feels insecure about hurting themselves, stay with him or her. You can contact healthcare professionals or use an emergency service telephone number (061, 112).
- If you are caring for someone with severe depression, it is essential to find time for yourself without feeling bad or guilty. Living with a family member who has depression can wear you down, and it is therefore important to take care of yourself as best as possible and to stay well psychologically.



#### More information

- Emergency phone numbers: 061 or 112.
- Confederación Española de Agrupaciones de Familiares y Personas con Enfermedad Mental [Spanish Confederation of Groups of Relatives and People with a Mental Illness] (they offer information and support and have some psychosocial resources available). www.feafes.com.
- "Hope" telephone line (they have a 24-hour crisis line in major Spanish cities) www.telefonodelaesperanza.org.

• www.suicidioprevencion.com

9. Information for individual distribution.

#### WHAT IS DEPRESSION?

#### **Depression is not...**

It is normal to not be able to avoid feeling sad at some point; it's part of life.

Especially when something goes wrong, such as when you argue with a friend, you get bad notes, or you get upset at your parents.

During these times, at some point:

- You may feel sad or irritable.
- You'll sleep little.
- You won't want to see your friends.
- Your appetite will change.

It will pass in 1 or 2 weeks, or before, if the situation that caused it improves.

Being down does not mean that you have depression.



#### Depression is...

But imagine that weeks go by and you don't improve and that you feel very sad and have no interest in anything **every day, then you may have depression**. You might also experience:

- Changes in weight and appetite.
- Sleep problems.
- You might be uneasy or slow.
- You feel that you have no energy or feel guilty.
- You feel tired or empty.
- You can't concentrate at school.
- You think about death or suicide.



#### DEPRESSION AND FAMILY

Having a child with depression affects the whole family.

#### **Repercussions of depression on the family:**

- Routines or rules can change, and the family may cease to participate in activities that get everyone out of the house.
- Contact with friends or social events start to be avoided because the family feels embarrassed or worried about being judged. Friends might also avoid the family. This leads to isolation at a time when the family needs the greatest support.
- The child might be pampered to avoid making the illness worse, or conversely, the family might become resentful of the child because of the disruption that the depression has caused to the family.
- Parents might be more strict or harsh with those who don't have depression.
- Some members of the family might be irritable or upset, while others might want to draw attention to themselves because of the attention they think they aren't receiving.
- There might be more arguments among family members, especially about how to treat the patient.
- Individually, they are frustrated and incapable of changing things or the patient, and they might even feel guilty about the depression.

• Signs of stress or even depression might appear.

#### Care of the family and surrounding environment:

- Take care of yourself and encourage others to do the same. You can help if you feel healthy and rested. Recognise when you need to stop, or better yet, seek time for yourself and rest before needing it.
- Consider that nobody is capable of being nice all the time. You can have a bad day, but keep going positively.
- Try to do activities as a family, even though the patient may not participate.
- Encourage everyone to continue with their daily activities. Try to spend time with every member of the family. Don't let the child with depression monopolise all the attention.
- The family can benefit from education about the illness and how it is treated and from working with a specialist about specific problems. Participate in the treatment. Consider joining support groups. It will help you to talk with others who have had similar experiences.
- Members of the family must recognise if they have depression and must ask for help. Depression can affect several members.
- Remember that depression is an illness. No one is at fault.

#### FAMILY SUPPORT PLAN

#### How can I help my child?

- Help your child to establish goals that are simple and realistic and that adapt to the child's style and personality.
- Acknowledge their successes.
- Remember the things that helped the child in the past.
- Work on one goal at a time.

#### **1.** Compliance with treatment:

- Remind your child to take their medication.
- Participate in the treatment.
- Try to be their support.

#### 2. Enjoyable relations and activities:

- When your child is depressed, he or she may avoid contact with other people.
- Good relations with friends and family are a significant part of recovery.
- Example: encourage the child to speak with their friends and take care of their social relations (birthdays, sports, music, field trips, etc.). Minimise the significance if the child is unable to at first; the important thing is to try. Help the child to progressively recover their activities.
- Spend time with and talk with the child.

#### 3. Nutrition and exercise:

- Be sure that the child is well nourished and exercises regularly.
- For example: drinking plenty of water and eating fruits and vegetables; take a walk or ride a bike with the child every day.



#### SLEEP PROBLEMS

We all need to sleep.

#### If you don't sleep:

- It's hard to concentrate at school.
- You fall asleep during the day.
- You feel irritable and are in a bad mood.
- You feel slow and tired.

Sleep problems can form a part of depression. Even though there are sleep problems that require medication, there are things that

#### YOU CAN DO TO IMPROVE:

- 1. ALWAYS GO TO BED AND GET UPAT THE SAME TIME; routine is the best thing for going to sleep.
- 2. AVOID NAPS.
- **3. DON'T STUFF YOURSELF OR GO TO BED HUNGRY**. A glass of warm milk may help.
- 4. DON'T DRINK STIMULATING DRINKS (coffee, sodas, tea, hot chocolate, etc.).
- 5. DON'T DRINK ALCOHOL OR SMOKE.
- 6. FIND A RELAXING ACTIVITY FOR BEFORE GOING TO BED: such as a hot bath, listening to relaxing music, or chatting with a friend. You should not use a mobile phone or chat or play on the computer before going to bed.
- 7. USE THE BED ONLY FOR SLEEPING OR RESTING. It is not a place for watching television or doing homework.
- **8. PREPARE THE BEDROOM FOR SLEEPING**: avoid noise and light, and make the temperature comfortable.

#### 9. EXERCISE REGULARLY.

**10. GET OUT OF THE HOUSE AND GET SOME SUN**. Sunlight helps to control the biological clock.

#### DON'T BECOME OBSESSED, SLEEP WILL COME.



### Appendix 3. Glossary

- Adolescent: for the purpose of this guideline, an adolescent is considered to be between 12 and 18 years of age, regardless of the sex.
- Art therapy: also called artistic or creative therapy, it consists of using the visual arts for therapeutic purposes. It is based on the idea that visual representations, put into objective terms through plastic material, contribute to constructing the meaning of mental conflicts and favour the resolution thereof. From this point of view, plastic representation is a process of thought construction.
- **Self-help:** learning or empowering behavioural repertoires or abilities for taking on negative situations and emotional states, with no intervention or minimum participation by a therapist. Its objective is to give patients knowledge and skills that help them to overcome or manage their health problems.
- **Guided self-help:** it is a more complete mode of self-help. It uses self-help materials together with minimum orientation by a professional.
- **Self-modelling:** it is a technique that consists of repeatedly viewing a recording of the subject performing the desired behaviour, directed at achieving a goal.
- **Beck Depression Inventory (BDI):** a self-applied self-evaluation scale that fundamentally assesses the clinical symptoms of melancholia and intrusive thoughts that are present in depression.
- **Bibliotherapy:** it is a form of therapy in which written material is selected for a patient to read in order to treat their emotional and behavioural problems. Intervention by a professional is minimal, and reading the texts gives rise to a process of self-help through the patient's own reflection.
- Cochrane Library Plus: a Spanish version of the Cochrane Library electronic journal, the main information vehicle of the Cochrane Collaboration. It is consulted through the Internet, and it is updated every three months. It appeared in 2002, and it is the only non-English version of the Cochrane Library.
- **Comorbidity:** a clinical situation in which two or more illnesses or conditions coexist at the same time, such as depression and anxiety.
- **Suicidal behaviour:** a spectrum of behaviours that may or may not have a fatal ending, including suicide attempts and suicide.
- **Counselling:** it attempts to discover the conflicting emotional factors that condition personality problems. As a result, its goals include helping to understand the obstacles that prevent normal development of the personality and learning the means to overcome those obstacles in order to favour the functioning of constructive psychological processes. It is psychological therapy that offers information and an exchange of experiences, and it is based on four pillars: 1) assertive communication skills, 2) emotional support, 3) a problem-solving model, and 4) self-control.
- Usual care: the care that patients receive according to the area where it is given. The definition of usual care or usual treatment varies in the various studies, and it includes psychotherapeutic and/or pharmacological interventions.

- **Standard care:** in this guideline, standard care includes the following: psychoeducation, individual and family support, problem-solving techniques, coordination with other professionals, care of comorbidities, and regular follow-up on the mental state.
- **Major depression:** a set of symptoms, which includes a predominance of the affective type (pathological sadness, lassitude, irritability, a subjective feeling of distress, and impotence in the face of life's demands). Given that, to a greater or lesser extent, symptoms of a cognitive, volitional, or even somatic type are present, we could also talk about an overall impairment of personal functioning, with special emphasis on the affective sphere.
- **Hopelessness:** cognitive schemes that have the common theme of negative expectations about the future, whether the immediate or more remote future. The measurement of the hopelessness construct was initiated by Beck and his colleagues with the preparation of the Beck Hopelessness Scale, BHS.
- Efficacy: the degree to which a certain intervention under ideal conditions produces a beneficial outcome. Randomised clinical trials are the gold standard for assessing efficacy.
- Effectiveness: the degree to which an intervention produces a beneficial outcome under ordinary circumstances.
- **Randomised clinical trial:** an experimental study in which the participants are randomly assigned to receive a treatment or intervention from among 2 or more possible options. One of the groups usually receives conventional treatment (control group), which serves as the standard of comparison, while the other group receives the treatment under study (experimental group).
- **Cohort study:** it consists of follow-up on one or more cohorts of healthy individuals who show different degrees of exposure to a risk factor and in whom the appearance of an illness or a study condition is measured.
- **Case-control study:** an observational and analytical study in which the subjects are selected according to whether they have (cases) or don't have (control) a certain illness or, in general, a determined effect. Once selected, they are studied to see if they were exposed to a characteristic of interest, and the proportion of exposures in the case group is compared to that of the control group.
- Embase (*Excerpta Medica data BASE*): a bibliographical database produced by the company Elsevier, which specialises in the field of biomedicine and pharmacology. It contains over 12 million records and can be consulted as from 1974.
- **Expressed emotion:** a set of variables that refer to family communication. This construct has been used as an indirect index of interactions between a patient and the patient's family members in studies on the prognosis of relapses. The expressed emotion index refers to criticism, hostility, and emotional over-involvement.
- Scheme: a scheme, within the framework of cognitive therapy, is "a structure for the selective perception, coding, and assessment of the stimuli that have an impact on the body, and it serves to structure and organise the environment into relevant psychic units".
- **Support groups:** they tend to be put together by a professional and are composed of people who share some type of problem that alters or modifies aspects of their normal functioning. These groups can occasionally be guided by para-professionals who are trained or supervised by professionals.

- **Heterogeneity:** the quality of a heterogeneous thing, or something formed by elements of a different class or nature. Contrary to homogeneity.
- Suicidal ideation: thoughts that can vary from ideas such as life is not worth it to well-structured plans about how to die, or intense, self-injurious concerns.
- Selective serotonin reuptake inhibitor: a class of antidepressant drugs that prevent the reuptake of serotonin by the presynaptic neurone, thereby increasing the neurotransmitter level that is available for joining with the postsynaptic receiver.
- **Insight:** it is the ability to realise or become aware of an internal reality that had normally remained unconscious.
- Locus of control: it is the degree to which a subject perceives the origin of events and of his own behaviour as either internal or external to him. An internal locus of control is the perception that events occur mainly as an effect of one's own actions, while an external locus of control is the perception that events occur as a result of randomness, destiny, fate, or the power and decisions of others.
- **Contingency management:** a variety of Skinnerian techniques or operands that share the common goal of controlling behaviour by manipulating its consequences.
- **Medline:** a bibliographical database produced by the National Library of Medicine of the United States. It includes the bibliographical references of articles published in over 4500 medical journals since 1966. Each Medline record contains the basic data of the bibliographical reference so that it can subsequently be recovered. PubMed is an information recovery system based on world wide web technology that allows searching databases, including Medline.
- **Meta-analysis:** a statistical method that combines the outcomes of different studies in order to assess heterogeneity and generate global outcomes.
- **NICE** (National Institute for Health and Clinical Excellence): an independent British organisation that provides guidelines on promoting health and the prevention and treatment of illnesses to the National Health Service.
- Child: for the purpose of this guideline, a child is only considered to be between 5 and 11 years of age, regardless of the sex.
- **Psychoeducation:** individual or group programmes that establish explicit and educational interaction between a professional, the patient, and the patient's caregivers.
- **Relapse:** a worsening of an apparently controlled episode, until criteria of diagnostic level are reached again, and it occurs during remission and before recovery.
- **Recovery:** it is the duration of the remission period that is required for determining if there is complete recovery of a depressive episode. According to DSM-IV criteria, this period would be two months.
- **Recurrence:** the development of a depressive disorder in a person who had previously suffered from depression. A new depressive episode is usually considered to have occurred after six months have elapsed.
- **Reinforcement:** positive reinforcement is understood as the stimuli that increase the likelihood of expressing the behaviour that causes the appearance of said stimuli. When the behaviour increases as a consequence of withdrawing certain stimuli, it is said that the behaviour that eliminates those stimuli is negatively reinforced.

- **Remission:** remission requires that a patient be asymptomatic and not suffer from anything beyond the minimum residual symptoms, and it must furthermore produce the total restoration of functioning.
- **Response:** the absence of symptoms or a significant decrease of the symptomatology of depression during at least two weeks. Improvement of at least 50% with respect to the initial values in a depression measurement scale is also considered to be a response.
- **Systematic review:** a form of research that provides a summary of existing studies regarding a specific question, for which the research uses explicit and systematic methods of identification, critical assessment, and synthesis of scientific literature.
- **Problem-solving techniques:** training on resources that facilitate the confrontation of conflictive or stressful situations.
- **SIGN** (Scottish Intercollegiate Guidelines Network): it was formed in 1993 for the purpose of drafting and disseminating clinical practice guidelines based on the best available scientific evidence.
- Size of the effect: it is an estimate of the effect of a treatment when compared with a control group (for example, another active treatment, no treatment, or usual treatment). An example of the size of the effect is relative risk (used for dichotomous variables) and the difference of weighted and standardised means (both for continuous variables).
- **Cognitive behavioural therapy:** it focuses on the modification of dysfunctional behaviours, distorted negative thoughts associated with specific situations, and disadaptive attitudes related to depression.
- **Behavioural therapy:** it is an approach of clinical psychology that is based on the psychology of learning to explain psychological disorders and the development of strategies directed at therapeutic change. Another characteristic is that it is based on the experimental study of the principles and laws of learning.
- **Dialectical behaviour therapy:** it is psychosocial treatment developed specifically for treating people with borderline personality disorder, but it is also used for patients with other diagnoses. DBT uses techniques that focus on behavioural change, with acceptance or validation strategies, and it underscores that acceptance does not exclude change (the dialectical component).
- Electroconvulsive therapy: a technique that consists of inducing generalised seizure activity, for a therapeutic purpose, through electrical stimulation of the central nervous system.
- Family therapy: it makes family relations the main focus of its intervention due to the fact that some authors have pointed out that there is strong evidence of association between child and adolescent depression and factors such as weak affective links, high levels of criticism, family hostility, or parental psychopathology.
- **Interpersonal therapy:** it deals with interpersonal relationships and intervenes in the immediate social context of the patient. It assumes that interpersonal problems can activate or exacerbate depression, wherefore it focuses on these problems to favour adaptive changes, thereby causing improvement in the depressive symptomatology.
- **Nondirective therapy:** a procedure in which the psychotherapist reflects back to the client what the latter has said as a procedure to refrain from directing the client. Its distinctive characteristic would be the therapist's attitude, who promotes the conditions of the therapeutic relationship that favour the processes of psychological change.

- **Supportive therapy:** intervention based on emotional support, nondirective problem solving, and a review of the patient's condition (depressive symptoms, school performance, suicidability, social activities) for the purpose of assessing the need for intervention by specialised professionals.
- **Psychodynamic therapy:** it is derived from psychoanalysis and is based on the Freudian theory of psychological functioning that the nature of conflicts can be unconscious, to a large extent, wherefore the therapeutic objective is to resolve these conflicts.

### Appendix 4. List of abbreviations

- AACAP: American Academy of Child and Adolescent Psychiatry.
- ADAPT: Adolescent Depression Antidepressant and Psychotherapy Trial.
- AEMPS: Spanish Agency of Medicines and Healthcare Products.
- AGREE: Appraisal of Guidelines Research and Evaluation.
- AHRQ: Agency for Healthcare Research and Quality.
- **APA:** American Psychiatric Association.
- BDI: Beck Depression Inventory.
- CAMHS: Child and Adolescent Mental Health Services.
- **CDRS:** Children's Depression Rating Scale.
- CGAS: Children's Global Assessment Scale.
- **ICD-10:** International Classification of Diseases, 10<sup>th</sup> edition.
- MD: major depression.
- DSM-IV: Diagnostic and Statistical Manual of Mental Disorders.
- **RCT:** randomised clinical trial.
- BHS: Beck Hopelessness Scale.
- EMEA: European Medicines Agency.
- FDA: Food and Drug Administration.
- CPG: clinical practice guideline.
- HoNOSCA: Health of the Nation Outcome Scales.
- MAOI monoamine oxidase inhibitor.
- SNRI: serotonin and norepinephrine reuptake inhibitor.
- SSRI: selective serotonin reuptake inhibitor.
- **Kiddie-SADS-P:** Schedule for Affective Disorders and Schizophrenia for School-aged children-Present episode version.
- **K-SADS-P/L:** Schedule for Affective Disorders and Schizophrenia for School-Aged Children-Present and Lifetime Version.
- MADRS: Montgomery-Asberg depression rating scale.
- MFQ: Mood And Feelings Questionnaire.
- NICE: National Institute for Clinical Excellence.
- NIMH: National Institute of Mental Health.
- WHO: World Health Organization.
- PQ-LES-Q: Paediatric Quality of Life Enjoyment and Satisfaction Questionnaire.
- RSQ: Risk of Suicide Questionnaire.
- SIGN: Scottish Intercollegiate Guidelines Network.

- SIQ-Jr: Suicidal Ideation Questionnaire. Junior High School version.
- SIS: Suicidal Intent Scale.
- **TADS:** Treatment for Adolescents With Depression Study.
- **CBT:** cognitive behavioural therapy.
- **DBT:** dialectical behaviour therapy.
- ECT: electroconvulsive therapy.
- **FT:** family therapy.
- **IPT:** interpersonal therapy.
- **IPT-A:** interpersonal therapy for adolescents.
- MST: multi-systemic therapy.

### Appendix 5. Declaration of interests

### Coordinators and members of the development group

Gerardo Atienza Merino, Elena de las Heras Liñero, Rafael Fernández Martínez, Ernesto Ferrer Gómez del Valle, Ana Goicoechea Castaño, Jose Luis Iglesias Diz, Arturo Louro González, Belén Martínez Alonso, José Mazaira Castro, Aurea Paz Baña, Lucinda Paz Valiñas, María Isabel Roca Valcárcel, and Yolanda Triñanes Pego declared no conflicts of interest.

María Álvarez Ariza declared having received financing for meetings or conferences (AstraZeneca and Pfizer) and for attending courses (Janssen).

### External reviewers

Antonio Agüero Juan, Victoria del Barrio Gándara, Amparo Belloch Fuster, María del Carmen Bragado Álvarez, Juan José Carballo Belloso, Sergio Cinza Sanjurjo, María Dolores Domínguez Santos, Aranzazu Fernández Rivas, Montserrat García González, María Paz García Vera, María Elena Garralda Hualde, María León-Sanromá, Germán López Cortacáns, María José Parellada Redondo, Ana Pascual Aranda, Pedro Javier Rodríguez Hernández, Patricio José Ruiz Lázaro, María Isabel Salvador Sánchez, Manuel Sampedro Campos, Carmen Senra Rivera, Josep Toro Trallero, Víctor Manuel Torrado Oubiña, and Fernando Lino Vázquez González declared no conflicts of interest.

Enric Aragonés Benaiges declared having received financing for meetings, conferences, or attending courses (Almirall) and having received financial aid for research funding from Lilly.

Pedro Benjumea Pino declared having received financing for meetings, conferences, or attending courses (Lilly, Glaxo).

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Josefina Castro Fornielles declared having received financing for meetings, conferences, or attending courses (Lilly); having received financing for her participation in research from Novartis laboratories; and having performed consulting work for Lilly laboratories.

Josep Cornellá Canals declared having received financing for meetings, conferences, or attending courses (Juste) and having performed advising work for the laboratory, Rubió, on the product, Rubifen.

Inmaculada Escamilla Canales declared having received financing for meetings, conferences, or attending courses (Lilly, Janssen, Juste); having received professional fees from Janssen and AEPIJ as a speaker; having received financing of educational programmes or courses from the Fundación Alicia Koplowitz; and having received financial aid for financing research from Lilly.

María Jesús Mardomingo Sanz declared having received financing for meetings, conferences, or attending courses (Lilly) and having received financing for her participation in research (Lilly, Janssen).

César Soutullo Esperón declared having received financing for meetings, conferences, or attending courses (Lilly, Janssen-Cilag, Esteve, Pfizer); having received professional fees as a speaker from Asociación Navarra ADHI, ACANPADAH, APNADAH, AstraZeneca, ASTTA, Regional Governments (Asturias, Castilla y León, Madrid), Eli Lilly, Fundación Innovación Social de la Cultura, GlaxoSmithKline, Grupo Aula Médica, Janssen-Cilag, Novartis, SEP-SEPB,

Sociedad Vasco-Navarra Psiquiatría, and Solvay; as well as having performed consulting work for Bristol-Myers Squibb, Editorial Médica Panamericana, Eli Lilly, Juste, EINAQ (European Interdisciplinary Network ADHD Quality Assurance), Fundación Alicia Koplowitz, Janssen-Cilag, Pfizer, Shire and Otsuka. He has also declared financial interests as an employee of Clínica Universitaria de la Universidad de Navarra and financial aid for funding research from Abbott, Bristol-Myers Squibb, Eli Lilly, the Government of Navarra, Fundación Alicia Koplovitz, Instituto de Salud Carlos III (FIS): Redes Temáticas de Investigación Cooperativa, Pfizer, PIUNA, Stanley Medical Research Institute-NAMI Shire, and Solvay.

### Appendix 6. Models of informed consent

### GENERAL INFORMED CONSENT

The patient, Mr./Msa native of
residing at
City Province
with an age of and holder of National Identity Document number; a
minor, and the undersigned, has been INFORMED IN DETAIL ABOUT
The prescribed medication/intervention or test to which he/she is going to be subject
and which, in summary, consists of
He/she has been informed about the risks and side effects inherent in the aforementioned and
explained medication/intervention or test, which are the following:
The patient has likewise been informed of the probable risks, which are the following:
All of the aforementioned in accordance with Law 41/2002 in force, on Patient Autonomy, where-
fore the patient understands and accepts the aforementioned points and signs this INFORMED
CONSENT.

On..... in the year 20...

Attending physician

The patient

\*Modified from: Fuertes Rocañín et al., 2007

## Appendix 6. Models of informed consent

### INFORMED CONSENT BY REPRESENTATION

The legal representative, Mr./Ms.
of the minor, Mr./Ms
anativeofresidingat
City Province
with an age of and holder of National Identity Document number; a
minor, and the undersigned, has been INFORMED IN DETAIL ABOUT
The prescribed medication/intervention or test to which he/she is going to be subject
and which, in summary, consists of
He/she has been informed about the risks and side effects inherent in the aforementioned and
explained medication/intervention or test, which are the following:
The patient has likewise been informed of the probable risks, which are the following:
All of the aforementioned in accordance with Law 41/2002 in force, on Patient Autonomy, where-
fore the patient understands and accepts the aforementioned points and signs this INFORMED
CONSENT BY REPRESENTATION.

On..... in the year 20...

Attending physician

Legal representative

<sup>\*</sup> If the parents are separated, the legal representative is the parent who has guardianship and custody and who must agree with the other parent.

### Appendix 7. Psychotherapeutic techniques

Psychotherapy can be defined as the psychological treatment of emotional, behavioural, and personality disorders, and it involves communication between a patient and a therapist and uses theoretically-based methods. All psychotherapies are based on the relationship between the therapist and the patient, as well as the use of procedures and specific techniques.

Psychotherapies can be offered in different formats (individual, family, group), and they can differ in specific dimensions such as the frequency of the sessions, the degree of the structuring, the duration, and the proposed objectives.

Moreover, there are different forms of psychotherapy that are derived from particular explanations or theories of psychopathology. Occasionally, this diversity is probably due to interests that are unrelated to scientific rigour or conceptual precision. In this regard, in 1993 Guattari pointed out that "psychotherapeutic practices and their theoretical formulations are currently in a state of almost total dispersion. This situation cannot be considered a sign of freedom, a stimulus to invention and to creativity, but rather it is the consequence of the sectarianism that reigns in this area and is the consequence of unawareness, which at times reaches irritating extremes, about everything that is happening inside each one of these restricted preserves."<sup>261</sup>

Despite the dispersion in this field, the various psychotherapeutic practices could be framed within five main groups: the behavioural approach, the cognitive approach, the psychodynamic approach, the humanistic approach, and the family approach. There are also other therapies that traditionally have not been included in these five groups but that have acquired great importance, such as interpersonal therapy.

As a starting point, before describing each one of the modes of psychotherapy, it should be pointed out that all of them, regardless of the theoretical model on which they are based, start with an assessment and a clinical formulation or conceptualisation of the problem or problems presented by the patient as a guide to the psychotherapeutic strategy. It must also be pointed out that all psychotherapeutic approaches share general principles, such as the need to establish a therapeutic alliance with the patient or a cooperative relationship that heads towards the proposed objectives of change.

The psychotherapeutic approaches on which controlled studies have been performed to assess their efficacy in childhood and adolescent depression and which have been reviewed in this guideline will be described.

### BEHAVIOURAL PSYCHOTHERAPY

Behavioural psychotherapy or behaviour therapy is an approach of clinical psychology that is based on the psychology of learning to explain psychological disorders and the development of strategies directed at therapeutic change. Another, central characteristic of this approach is that it is based on the experimental study of the principles and laws of learning, whose main processes are the following:

Classical conditioning. It is based on the work of Pavlov and other Russian physiologists
who performed experimental studies with dogs. They observed that when an initially neutral stimulus (for example, the sound of a bell) was paired with a stimulus, such as food,
that was capable of causing unconditioned, automatic physiological responses, and after
repeating the pairing a number of times, it began to cause a response (salivation) that was
similar to what was caused by the unconditioned stimulus, even without the presence
of the unconditioned stimulus. The principle of classical conditioning, in addition to its

involvement in the acquisition of simple conditioned responses, can be involved in the acquisition of complex responses, such as those of anxiety and other emotional states in certain environmental conditions, which is highly relevant to explaining and psychologically treating diverse emotional problems.

- Operant or instrumental conditioning refers to the learning of behavioural responses due to the environmental consequences or changes that they cause. When behaviour is associated with environmental changes or favourable consequences, this behaviour is positively reinforced and increases its likelihood of occurrence in the future. Conversely, negative consequences or no consequences would be associated with a decrease of the likelihood of occurrence of the behaviour in the future. In brief, a subject would learn to respond behaviourally under particular environmental conditions (discriminative stimuli) due to the consequences of the subject's responses throughout their biographical history.
- *Observational or vicarious learning* refers to the learning of behavioural patterns that are derived from the observation of others. In this case, the likelihood of the behaviour increases when it is observed that execution of the behaviour by others under certain stimulus conditions leads to favourable consequences.

Likewise, the likelihood would decrease when it is observed that the behaviour in question is punished or is not followed by any consequence.

The relevance of language in human functioning is reflected in the development (from the behaviourist framework) of concepts such as "derived relations" or "rule-governed behaviour", which are highly important to understanding a psychopathology and the treatment thereof.

Psychological disorders are understood as the result of problematic learning experiences throughout one's biographical history. Psychological symptoms would therefore be responses that have been learned through processes such as the aforementioned.

Therapy is based on a behavioural assessment in which a functional analysis of the specific episodes of the problem is central to identifying both the antecedent conditions and the consequences of the problem behaviour. It is thus possible to establish a hypothesis about the main influences that maintain the behaviour and, based on this, apply the pertinent therapeutic procedures based on the psychology of learning. However, contrary to a simplistic vision of behavioural therapy, it should be pointed out that, according to Marino Pérez<sup>262</sup>, "problems are presented and help is offered in the natural social context, which must be recognised as being complex with respect to the multitude of nuances that are continuously present. This therefore means that the development of the behaviour can result in a list of scarce and inflexible forms with respect to the infinite nuances of the context. The issue according to behaviourist criteria is to stick to classes of behaviours that are defined precisely for generic purposes (not in the sense of being vague, but rather generalist)". In this same sense, it should be added that the context within which there is interaction must be understood in the broad sense, given that a person not only relates with external stimuli but also with private stimuli, such as verbal thoughts or images, emotions, and bodily sensations. At the same time, more than a linear relationship in which the subject reacts to various stimuli, the subject-environment relationship is understood dialectically. In other words, not only does the context induce various behaviours or is an occasion for various behaviours, but these behaviours are also involved, at the same time, in moulding the context.

Some therapeutic techniques of behavioural treatment are the following:

• *Exposure techniques*. This therapeutic strategy involves getting the patient to come into repeated and prolonged contact with those situations that trigger states of anxiety and that the patient systematically avoids. Through repeated and prolonged exposure to these situations, the anxiety responses are progressively extinguished. The specific therapeutic proce-

dures in which the principle of exposure is present are diverse. For example, exposure can be done in the imagination or live (confrontation with life situations that trigger states of anxiety). On the other hand, exposure to avoided situations can be done gradually. In other words, exposure to progressively more anxiety-inducing situations would be planned in advance so that the attenuation of anxiety in the initial situations of the hierarchy facilitates exposure to situations that are associated with more elevated levels of anxiety within the hierarchy. Another variant of exposure is the technique known as systematic desensitisation. In this case, exposure to situations associated with anxiety responses is done in the imagination. Exposure takes place gradually (a hierarchy of situations that cause progressively more intense anxiety responses), while at the same time inducing a response that is incompatible with the anxiety (for example, a state of relaxation). The experience of contact with situations that initially cause anxiety under these conditions would give rise to debilitating their association with the anxiety.

- *Relaxation training*. Although various relaxation procedures exist, the one most frequently used in behaviour therapy is the one developed by Jacobson, which is known as "progressive muscular relaxation"<sup>263</sup>. This method consists of learning exercises for tensing and relaxing different muscle groups. Repeatedly practising the procedure helps the patient to discriminate the stressful experience and to use relaxation responses against it. Characteristically, the number of muscle groups on which exercises are practised is decreased in successive sessions until the muscular tension exercises are dispensed with and relaxation is induced by evocation. The ultimate objective is to be able to apply relaxation to daily life situations that are associated with anxiety.
- Aversive techniques. The procedure involves pairing the stimuli, thoughts, or behaviours associated with a response to be eliminated with a stimulus that causes unpleasant or aversive responses so that the likelihood of the undesired response would decrease. One variant of this procedure is covert sensitisation. In this case, the undesired responses are elicited in the imagination and are also associated in the imagination with an aversive stimulus.
- *Reinforcement programmes*. They are directed at increasing certain behaviours. Therefore, after specifying the behaviours to be increased, some form of positive reinforcement that is contingent upon the expression of these behaviours is used. Positive reinforcement is an especially important strategy, for example, in training parents for the purpose of modifying problematic behaviours of children and promoting adaptive behaviours.
- *Modelling*. It consists of presenting a behaviour that has to be imitated in order to facilitate the learning of that behaviour. Modelling is an essential element in learning certain abilities, such as social skills.
- *Behavioural trial.* It consists of practising the responses or competencies that the patient has to learn. Practice can take place in simulated or real-life situations.

Finally, the importance of the therapeutic relationship itself, as the context within which problematic behavioural-emotional patterns are revealed, can become an important focal point of the therapeutic process, such as what happens in the behaviourist therapy called functional analytic psychotherapy.

## COGNITIVE PSYCHOTHERAPY

Cognitive Psychotherapy is understood as the application of the cognitive model to specific psychological disorders through the use of a variety of techniques that are designed to modify dysfunctional beliefs and erroneous modes of information processing that are characteristic of a disorder.

Within this framework, particular learning experiences throughout development are considered to be important in the formation of cognitive schemes or beliefs that increase vulnerability to psychological alterations. Dysfunctional schemes or beliefs can be activated in life conditions that are related to them and that therefore have special significance for the person. The activation of dysfunctional schemes or beliefs leads to cognitive biases in the processing of information, of which the following are examples:

- Arbitrary inference: it refers to the process of reaching a certain conclusion without evidence that supports it or when the evidence is contrary to the conclusion.
- Over-generalisation: it involves reaching a general conclusion based on one or several isolated facts and applying the conclusion to both related situations and unrelated situations.
- Selective abstraction: it refers to focussing on a specific detail while ignoring other, more relevant characteristics of the situation.
- Magnification and minimisation: it refers to errors committed when evaluating the significance or magnitude of an event.
- Personalisation: it is the tendency of a patient to attribute external events to himself when there is no basis for establishing that connection.
- Absolutist dichotomous thinking: it refers to the tendency to classify all experiences to an extreme, without considering the graduations thereof.

These cognitive errors or biases translate into assessments or interpretations of special relevance in the emotional and behavioural response to a situation. In other words, emotional and behavioural reactions would be a direct consequence of said assessments. Dysfunctional assessments or interpretations can occur automatically in the sense of arising unconsciously in the stream of consciousness, with no consideration by the patient as to whether they are suitable or valid. The patient would assume that these negative automatic thoughts are a true reflection of reality.

Another important aspect of the cognitive model is the consideration given to the interactions between the different elements of the presentation of a disorder in the perpetuation of that disorder. For example, avoidance behaviours can make it difficult to acquire social skills, which in turn increases anxiety in these types of situations, thereby increasing the tendency towards avoidance, increasing negative thoughts about oneself, and so on.

Therapy is based on a clinical assessment and a formulation of the problem. It includes predisposition factors (for example, trait anxiety, deficits in certain skills, dysfunctional beliefs, or a poor social network), trigger factors (for example, a disturbing life event), and maintenance factors (for example, automatic negative thoughts or avoidance behaviours). The clinical formulation or understanding of the problem or disorder orients the specific therapeutic procedures.

The main therapeutic strategies used in cognitive therapy are the following:

• *Cognitive restructuring*. It consists of a careful analysis of the automatic thoughts that are communicated by the patient and that are relevant to the problem. This analysis attempts to specify the subjective meaning of the thought and the evidence on which it is based. More than trying to refute problematic assessments, the therapist asks questions that are focused

on the thought and the evidence on which it is based, as well as on evidence that could challenge the thinking. The goal is to help the patient consider more realistic or adaptive interpretations or assessments. It is important to point out that the challenge of automatic negative thoughts is to try to generalise the changes of these problematic cognitive patterns, through repeated practice, into daily life contexts so that the changes are strengthened.

- *Training on problem-solving*. This strategy is understood as a resource that facilitates the confrontation of conflictive or stressful situations. It consists of various phases that are learned over the course of the therapy sessions in order to be used in problematic situations that the person has to confront. Specifically, the training phases in problem-solving are the following:
- Orientation towards the problem.
- Specific definition of the problem.
- Generation of possible solutions.
- Examination of the advantages and disadvantages of each solution that is generated.
- Selection of the preferred solution.
- Putting the solution into practice.
- Assessing the results.
- Behavioural experiments. The patient could make certain negative predictions that lead to
  problematic behaviours such as avoidance behaviours or excessive safety-seeking behaviours. Planning during the therapy session and putting changes in these types of behaviour
  into practice could help the patient to see the appropriateness of the negative predictions
  and, if they are inappropriate, could lead to changes in the dysfunctional cognitive pattern.

A central characteristic of cognitive therapy is its emphasis on changing problematic cognitive patterns such as automatic negative thoughts and, ultimately, dysfunctional beliefs or schemes that are the basis of those thoughts. The objective is to facilitate coping with situations that are associated with the emotional disturbance and, as a result, improve quality of life and long-term emotional and psychosocial adjustment.

Even though the cognitive model and the behavioural model are based on different assumptions for explaining psychological disorders<sup>1</sup>, cognitive therapy – together with the stated cognitive techniques – systematically uses behavioural techniques (for example, scheduling gratifying activities or training on certain skills). Therefore, the therapy is commonly called cognitive behavioural therapy.

Finally, despite the fact that initially the cognitive model and cognitive therapy were preferably applied to emotional disorders (for example, mood state disorders, generalised anxiety disorder, and panic disorder), over time other disorders have been the objective of research and analysis from within this framework, which has resulted in clinical interventions applied to them also (for example, personality disorders, somatoform disorders, and positive psychotic symptoms with a poor response to psychopharmacological treatment).

<sup>&</sup>lt;sup>1</sup> Basically, behavioural formulations consider symptoms to be a consequence of learning processes. For example, from an absence of control over the environment (or learned helplessness) or from a lack of a positively reinforced repertoire of behaviours. From this approach, characteristic negative thoughts of depression would be another aspect derived from those learning processes, and they would not have a causal role in depressive manifestations. Conversely, cognitive theory – in its explanation for depression – considers learning processes such as the aforementioned to be implicated in the formation of dysfunctional schemes or beliefs, with a causal role in the origin of the disorder.

Thus, dialectical behaviour therapy is a therapy derived from cognitive and behavioural techniques developed by Linehan<sup>264</sup>. It was specifically designed for treating people with borderline personality disorders, although it has been successfully used in adolescents with depression and suicidal behaviour and in other pathologies. There are two essential parts in the treatment: individual therapy sessions, in which skills are worked on, and group sessions, where patients learn to use specific skills.

Dialectical behaviour therapy, together with other therapies such as acceptance and commitment therapy or functional analytic therapy, have been called third-generation therapies, given that they are the most recent variants of CBT.

#### PSYCHODYNAMIC PSYCHOTHERAPY

The term psychodynamic psychotherapy refers to a heterogeneous set of psychological interventions that are derived from psychoanalytical theory. Several implementations of this form of treatment emphasise various aspects, which include the following: a) notions of the psychic conflict as a common aspect of the human experience; b) the internal organisation of the mind for avoiding the displeasure that arises from the conflict and maximising the experience of security; c) the use of defensive strategies for the adaptive manipulation of ideas and experience for the purpose of minimising displeasure; d) an evolutionary approach of psychopathology, understood as a product of the long-term consequences of adaptations in the initial phases of development; e) the organisation of experience in terms of internal representations of the relationships between the self and others throughout the life cycle; and f) the expectable re-emergence of these experiences in the relationship with the therapist. Psychodynamic psychotherapies are, above all, verbal and interpretative, and they are directed at restructuring the representations of relationships, predominantly (though not exclusively) through the use of insight<sup>265</sup>.

According to Coderch<sup>266</sup>, we could distinguish technical instruments that are characteristic of supportive psychotherapy and technical instruments that belong to psychoanalytical psychotherapy, which present a gradation regarding the patient's knowledge and awareness of their intrapsychic conflict and of the unconscious processes that are at the basis of their disorders.

Of the psychotherapy techniques that are described below, the first three belong to supportive psychotherapy and the last three belong to psychoanalytical psychotherapy<sup>266</sup>:

- *Suggestion*: it is a technical procedure that tries to generate certain ideas, impulses, and forms of behaviour in the patient; or conversely, make other ideas, etc. disappear, regardless of their logical or rational opinion, supported only on the prestige and authority that the therapist holds before the patient.
- *Abreaction*: it consists of providing the patient with an emotional purge of the effects through verbalisation of the events or circumstances that are linked to the effects, either consciously or unconsciously.
- *Counselling*: it is mixed with suggestion. The therapist offers indications about new guidelines of behaviour, alternatives, ways of resolving difficult situations, paths to follow, etc.
- *Confrontation*: in confrontations, the therapist tries to direct the patient's attention towards situations, conflicts, and alternatives that, even when they are not unconscious, the patient may not consider at a given time or may overlook too quickly. It is also used to focus the patient's awareness towards certain circumstances that merit more in-depth and careful thought than what the patient gives them, or to promote in the patient a more accurate study of his own attitudes towards others, towards himself, and towards various environ-

mental situations, or to more precisely weigh the quality and content of his experiences and his responses to them.

- *Clarification*: in clarification, the therapist tries to help the patient to be more aware of his feelings, of how he relates to himself and to others, and of the meaning of his behaviour in order to obtain a more precise understanding of the organisation of his personality and of the structure of his response systems to the world in which he lives. Technically, the therapist, in the attempt at clarification, more precisely and intelligibly summarises what the he considers to be essential from the material offered by the patient.
- *Interpretation*: based on communication with the patient, the therapist tries to explain to the patient those unconscious mental processes that are expressed through such communication and that are the true driving force of his behaviour and, especially, of the clinical symptoms and personal difficulties.

Over time, the psychodynamic approach and psychoanalytical theory have been developed, and they have given rise to disagreements with respect to some of the assumptions and principles initially proposed by Freud. As a result, models that differ to a greater or lesser extent have been developed, and they have given rise to particular forms of psychodynamic psychotherapy (for example, Adlerian individual psychotherapy, interpersonal psychodynamic psychotherapy based on Sullivan's contribution, Lacanian psychoanalysis, and psychodynamic psychotherapy based on object relations theory). On the other hand, some forms of psychotherapy, although based on traditional psychodynamic (psychoanalytical) assumptions, place the emphasis on specific technical procedures, such as the case of brief psychodynamic psychotherapies or supportive psychodynamic psychotherapy. These psychodynamic psychotherapies can be considered to be an extension of psychoanalysis in which greater direction and focus is given to more specific goals of a more limited scope. Unlike traditional psychoanalysis, the approach of psychotherapy is short term.

#### FAMILY THERAPY

Even though the different psychotherapeutic approaches can be used in a family format when applicable, the family therapy approach places the emphasis of its explanation of psychopathology on patterns of dysfunctional family communication and on the notion of system, based on the theory of human communication and on general systems theory.

The theory of human communication<sup>267</sup> identifies behaviour with communication: every behaviour has message value and every message is a behaviour that can be modified.

General systems theory<sup>268</sup> sustains the impossibility of understanding a system through a separate examination of the elements of which it is composed. To understand systems, it is necessary to consider the relationships between the individual elements and the underlying rules that govern them.

Applied to psychopathology, systems theory alludes to concepts such as mutual causality in the development and perpetuation of a problem; the inflexibility of the rules that govern a system, which makes it difficult to adapt to changes and stressful events and which leads to imbalances that are manifested as a form of psychopathology; and the function that the symptomatic behaviour can fulfil in regulating the family system.

The way that psychopathology is conceived means that this psychotherapy is preferably applied in a family format. Gotlib and Colby<sup>269</sup> indicate the general principles of this approach to therapy:

- 1. The central goal of therapy is to promote changes in the patterns of family communications and in the behaviours that interrupt the sequences involved in the problems that led the family to therapy.
- 2. The therapeutic approach is the here and now rather than the family history.
- 3. The therapist is an active participant in the therapeutic process.
- 4. The therapist adopts a problem-solving approach.
- 5. The therapist explores the patterns of family interaction involved in maintaining the problem.
- 6. Therapy is generally short term.
- 7. The therapist expands the focus to the family, without limiting it to the symptomatic behaviour.
- 8. The emphasis of the therapy sessions is the process more than the content.

In the family approach of psychotherapy, four main modes can be distinguished, which – even based on shared principles (derived from communication and systems theories) – place special emphasis on certain conceptual aspects, and they have distinctive characteristics or variants in the specific therapeutic procedures:

- 1. Strategic communication therapy.
- 2. Strategic family therapy.
- 3. Structural family therapy.
- 4. Systemic family therapy.

### INTERPERSONAL THERAPY

Interpersonal therapy is a form of treatment that is of particular interest to this guideline, given that its efficacy has been proved in several controlled studies with depressed patients, and it arose specifically as maintenance therapy for major depression. Its founders are Klerman and Weissman<sup>143</sup>, and it has been adapted for use with adolescents.

Interpersonal therapy focuses on four, clinically relevant aspects in depressive disorders:

- 1. Grief. Therapeutic intervention in this area involves helping the patient to reconstruct the relationship with a lost person by facilitating emotional expression and the formation of sorrow, as well as emphasising the establishment of new relationships.
- 2. Interpersonal conflicts in different scopes (marital, family, social, and work). They occur when a patient and other people have different expectations of a situation and the resulting conflict is of a sufficient magnitude to cause significant distress. Intervention involves identifying the sources of misunderstanding the other's point of view, which occurs due to communication problems, as well as unreasonable or invalid expectations that can exist. As from this point, procedures are applied to provide training on communication, problem-solving, or other techniques that help to facilitate a change in a conflictive situation.
- 3. Role transitions. This refers to situations in which a patient has to adapt to a change in his life or circumstances. These changes can be derived from a development crisis, adjustments to changes at work or socially, as well as the occurrence of disturbing life events

such as situations of attachment and loss. In interpersonal therapy, the sources of difficulty in adapting to a new role are identified, and new ways to confront them are sought.

4. Deficits in personal relations. It refers to aspects of interpersonal behaviour such as excessive dependency or hostility, which contribute to poor social adjustment. Within the framework of the therapeutic relationship, adaptive changes in these behavioural patterns would be attempted.

Obviously, in this psychological treatment, the interpersonal aspect of the behaviour is prioritised, but it is not family therapy. At the same time, the focus is on the problems that can explain the depression, but it also isn't problem-solving therapy. It is an approach that takes ideas and techniques from other schools and organises them in an original way. Thus, concepts and techniques of cognitive behavioural therapy, experiential therapy, and supportive therapy are characteristically used.

Therefore, interpersonal therapy does not ascribe to a specific theoretical school, although the interpersonal psychiatry of Sullivan and Meyer and Bowlby's attachment theory would have to be pointed out as the main influences in its development.

Over time, since interpersonal therapy arrived on the scene as a form of treatment for depressive disorders, it has adapted to the peculiarities of other psychopathologies such as bulimia nervosa, somatisation, substance abuse, or post-traumatic stress disorder.

Therapy lasts approximately 12 to 16 weeks in one-hour sessions on a weekly basis, which are structured by an initial evaluation phase (normally the first interviews are the evaluation phase). The evaluation phase is followed by the therapeutic intervention phase, which focuses on the indicated interpersonal areas throughout the following sessions. The last two sessions are centred on ending the therapy.

### BIBLIOTHERAPY

It is a form of therapy in which the patient is given carefully selected material to read in order to treat their emotional and behavioural problems. It is characterised by using an especially applied format and mode and not by belonging to a specific school.

Bibliotherapy can be oriented from any psychotherapeutic approach. Intervention by the professional is considered to be minimal, and reading the texts gives rise to a process of self-help through the patient's own reflection. These reflections are only occasionally discussed with the professional.

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