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Emotional Problems in Spanish Children and Adolescents during the COVID-19 Pandemic: A Systematic Review

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ABSTRACT

The COVID-19 pandemic has particularly affected the mental health of children and adolescents. In Spain, numerous studies have been carried out about the emotional impact on this population. The objective of this paper is to examine, through a systematic review, the most immediate psychological effects of the pandemic on Spanish children and adolescents and the related variables. A search was conducted, obtaining 356 articles of which 27 met the inclusion criteria. The studies reviewed address emotional problems, emotion-regulation problems, anxiety, depression, and stress in Spanish children and adolescents. An increase in emotional problems during confinement was observed. Differences were found in emotional problems, being generally more common in girls and older children and adolescents. Related variables of a family nature and referred to the pandemic, coping styles, and other psychological problems were examined. These results are relevant to design interventions that can prevent the impact of other similar situations.

Los problemas emocionales de los niños y adolescentes españoles durante la pandemia del COVID-19: una revisión sistemática

RESUMEN

La pandemia del COVID-19 ha afectado de forma particular a la salud mental infanto-juvenil. En España se han llevado a cabo numerosos estudios acerca de las repercusiones emocionales en esta población. El objetivo de este trabajo es examinar, mediante una revisión sistemática, los efectos psicológicos más inmediatos de la pandemia en niños y adolescentes españoles y las variables relacionadas. Se realizó una búsqueda, obteniéndose 356 artículos de los que 27 cumplieron los criterios de inclusión. Los estudios revisados abordan problemas emocionales, de regulación emocional, ansiedad, depresión y estrés en niños y adolescentes españoles. Se encontraron diferencias en estos problemas emocionales, siendo generalmente más comunes en chicas y en niños mayores y adolescentes. Se revisaron variables relacionadas de carácter familiar, relativas a la pandemia, estilos de afrontamiento y otros problemas psicológicos. Estos resultados son relevantes para el diseño de intervenciones que puedan prevenir la repercusión de otras situaciones similares.

As a result of the COVID-19 pandemic, the population has been exposed to a high level of stress. The alarm state decreed in Spain in March 2020 limited movement and suspended various activities such as school attendance (Real Decreto 463/2020). From that moment on, a particularly restrictive and lasting confinement began compared to other European countries, with Spanish children not being allowed to leave home until six weeks later (Orgilés, Morales, et al., 2021).

Confinement during the pandemic has had effects on various aspects of children's lives, such as the decrease of physical activity, an increase of sedentary behaviour, poorer sleep quality, and reduced self-regulation (Alonso-Martínez et al., 2021). The closure of schools

also had negative consequences for children, owing to increased periods of loneliness and self-care (Araújo et al., 2021).

Based on the study of other pandemic situations, Sprang and Silman (2013) indicate the increase in children's demand for mental health services, both during and after pandemics. According to these authors, the most frequent diagnoses derived from these situations were acute stress disorder, adjustment disorder, grief and, to a lesser extent, post-traumatic stress disorder (PTSD). Even so, it has been observed that children who have lived through quarantine during pandemics are more likely to develop PTSD than other children who have not, reaching the clinical score that identifies this disorder (30%).

With the outbreak of the COVID-19 pandemic, several studies

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were initiated worldwide to explore its impact on children's and adolescents' mental health. These studies include the one reported by Jiao et al. (2020), which found an increase in irritability and fear of asking about COVID-19 in children and adolescents in the Shaanxi province (China). In turn, these studies have been collected in different reviews, which have revealed a high incidence of anxiety and depression symptoms in children and adolescents from different countries as a result of the situation (Deolmi & Pisani, 2020; Imran et al., 2020; Ma et al., 2021; Marques et al., 2020; Meherali et al., 2021; Nearchou et al., 2020). Factors related to these emotional problems have also been reviewed, including gender (Meherali et al., 2021), development stage, educational and socioeconomic status (Singh et al., 2020), pre-existence of health problems, COVID-19 infection, and exposure to domestic violence at home (Marques et al., 2020).

Considering the great emotional impact of the pandemic on children and adolescents from different countries and the diversity of studies, the aim of this study is to examine the impact level, the variables studied, and the factors showing a relationship with the emotional problems in Spanish children and adolescents during the early phases of the pandemic. For this purpose, a systematic review of studies has been carried out to facilitate the integration of data available so far.

Method

Search Strategy

A search was conducted in the Scopus and Web of Science (WOS) databases in June and July 2021 with terms related to children and adolescents, the COVID-19 pandemic, and emotional problems and mental health. Concretely, the following search equation was used for Title, Summary, and Keywords (in Scopus) and Topic (in WOS): (emot* OR anxi* OR depress* OR stress* OR mental) AND (child* OR adolescen*) AND (sars OR pandem* OR covid OR coronavirus OR lockdown OR quarantine* OR confine*). The search was restricted to 2020 and 2021, and to Spain as country of origin. The same search equation was used in OpenGrey and Proquest to find grey literature, without results meeting the inclusion criteria.

Inclusion and Exclusion Criteria

A number of criteria were established. As for the type of document, empirical research articles were included. The studies were to be conducted between March and July 2020, to reflect the early stages of the pandemic. As for the content of the studies, the PICOS strategy was used:

- Participants: children and adolescents under 18 years of age, whether the results were self-reported or reported by the parents or legal guardians. The nationality of the participants (or at least part of them) had to be Spanish, and they needed to belong to the general population, excluding studies focused on specific groups and clinical population.
- Intervention: assessment of emotions, emotional problems, emotion-regulation problems, depression, anxiety and/or stress related to the COVID-19 pandemic.
- Comparison: differences according to age and gender, or no comparisons between groups.
- Outcomes: levels of the studied variables and/or factors related to them.
 - Study design: quantitative, qualitative or multimodal.

Article Screening and Quality Assessment

After the search, the article screening process described in Figure 1 was performed. The authors reviewed, together, the references

exported in the bibliographic manager RefWorks, to carry out a screening by title. After that, the screened articles were searched, finding all of them, and their summary and full text were reviewed. At least two of the team members reviewed each article, studying whether they met the inclusion criteria. Journals related to the subject of study were examined manually, as well as publications by leading authors in the field, finding three articles. Of these, as well as those examined by summary and full text, the reference lists were reviewed, adding one more article. A discussion was held and the 27 final articles were selected. Their quality was assessed with the Mixed Methods Appraisal Tool (MMAT; Hong et al., 2018), which has two general screening questions and five specific to the study design. Quality scores were not obtained for each article, but an overall analysis was performed, as recommended by the authors of the MMAT. Two of the reviewers carried out the assessment separately and, after that, the results were shared. All studies were considered eligible and of good quality. After that, two team members reviewed each article in full text, extracting the information of interest – emotional problems, emotional variables and related factors. Once the results were selected, they were collected in table format for qualitative analysis.

Results

The studies included in this review were conducted during the first months of the pandemic. All studies administered the questionnaires through online platforms. Twelve studies were conducted with children (between 0 and 13 years), two studies with adolescents (13 to 18 years, although one study did not specify the age range), and the remaining thirteen with children and adolescents (ages 0-18). In some articles, the results were self-reported (n = 10) while in other articles they were reported by parents or legal guardians (n = 16). Only one study used both methods of data collection. Finally, the sample size of the studies ranged from 71 to 2,292 participants.

Concerning the measures used in quantitative and multimodal studies, 17 studies used scales and questionnaires validated before the pandemic, which assess variables related to emotional problems, such as the SDQ (Goodman, 1997; Rodríguez-Hernández et al., 2014). Another 10 studies used questionnaires with specific content about the emotional state in the COVID-19 pandemic situation. In addition, qualitative studies used techniques such as the Reinert method (Reinert, 1983). In Table 1, the characteristics of the 27 studies included in the review are presented. Furthermore, factors that have obtained statistically significant differences and correlations (p < .05) with emotional problems are presented.

Emotional Problems

The variables studied were emotional problems (n=8), anxiety (n=12), depression (n=5), emotion-regulation problems (n=3), mood problems (n=4), and stress (n=2). In two studies, emotional problems were examined altogether with other psychological problems.

Twelve studies found a relationship between emotional problems and changes caused by the outbreak of the pandemic and confinement. Nine of these studies concluded that emotional problems increased during the lockdown (Andrés-Romero et al., 2021; Berasategi et al., 2021; Erades & Morales, 2020; Gómez-Becerra et al., 2020; Lavigne-Cerván et al., 2021; Liébana-Presa et al., 2020; Orgilés, Francisco, et al., 2021; Pizarro-Ruiz & Ordóñez-Camblor, 2021; Romero et al., 2020). Thus, two studies found that emotional problems decreased as confinement ended (Ezpeleta et al., 2020; Orgilés, Francisco, et al., 2021). Only one study reported that scores obtained in depression were similar to those before the pandemic (Castillo-Martínez et al., 2020).

The transcultural studies included in the review reveal greater emotional problems in Spanish children and adolescents than in

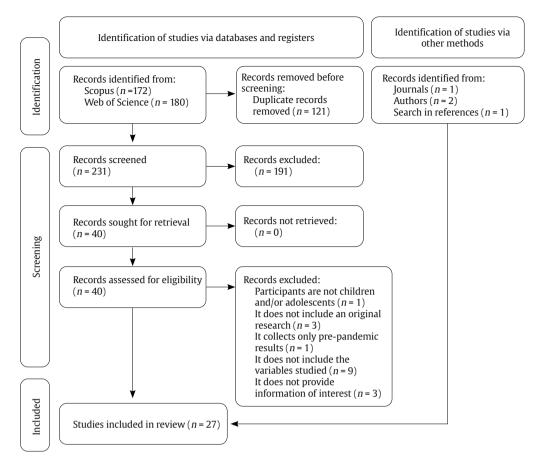


Figure 1. PRISMA Flow Diagram (Page et al., 2021) with the Followed Screening Process.

children from other countries. In the study by Orgilés, Morales, et al. (2020), Spanish youth had more emotional problems compared to Italians. In studies carried out with children and adolescents from Italy and Portugal, it was observed that Spanish children and adolescents presented fewer mood problems than Portuguese, but more symptoms of anxiety than Italians (Francisco et al., 2020) and higher levels of anxiety were found in Spanish children and adolescents, as well as of depression in Spaniards and Italians (Orgilés, Espada, et al., 2021).

Emotional Variables

Three studies analysed emotions during confinement qualitatively. Tíscar-González et al. (2021) found higher scores in sadness, fear and boredom, while Serrano-Martinez (2020) observed higher levels of joy. In another study, children were found to present mixed emotions during confinement due to COVID-19, that is, emotions of fear, nervousness, loneliness, sadness, boredom and anger, as well as security, tranquility and happiness for being in the family (Idoiaga et al., 2020).

Age Differences

Of the 27 studies that make up this review, seven concluded that age could be considered a risk factor for different emotional problems. Of these seven studies, three found that children over the age of 7, pre-adolescents, and adolescents scored higher in anxiety (Castillo-Martínez et al., 2020; García-Adasme et al., 2021; Lavigne-Cerván et al., 2021). Thus, Pizarro-Ruiz and Ordóñez-Camblor (2021) concluded that adolescents had higher rates of

anxiety, depression, and emotion-regulation problems. Another study found that children aged between 6 and 11 years had more emotion-regulation problems than 3-year-old children (Giménez-Dasí et al., 2020). However, two studies found that younger children had more emotional problems than older children (Domínguez-Álvarez, López-Romero, Gómez-Fraguela, et al., 2020; Gómez-Becerra et al., 2020).

Gender Differences

Eight of the studies examined gender differences in the variables analysed. Six of them concluded that girls were more emotionally affected than boys. Specifically, one of them found that girls had more emotional problems (Berasategi et al., 2021). In two studies, it was reported that girls scored higher in anxiety (Carrillo-López et al., 2021; Carrillo-López & García-Prieto, 2020). Girls also had higher depression scores (Castillo-Martínez et al., 2020) and a higher stress level (Liébana-Presa et al., 2020). Another study found that adolescent girls had higher levels of depression, anxiety, and stress (Tamarit et al., 2020). However, in contrast to this information, two studies concluded that boys had higher anxiety scores (Francisco et al., 2020; García-Adasme et al., 2021).

Family Variables

There is a relationship between the emotional problems of children and adolescents and some parental and family variables. First, parents' low resilience has been associated in three studies with emotional problems in their children during the confinement (Andrés-Romero et al., 2021; Domínguez-Álvarez, López-Romero, Gómez-Fraguela, et

Table 1. Characteristics of the Reviewed Articles

| Study | Study Design | Sample | Objectives | Measures | Results |
|---|--|------------------------------|---|--|--|
| Andrés-Romero et al. (2021) | Descriptive- correlational and cross-sectional | N = 883 3-18 years | To study the relationship between youth's adjustment and parental stress and resilience at different times of confinement | Strengths and Difficulties Questionnaire (SDQ) Ad hoc questionnaire of 7 items $(\alpha = .67)$ | Emotional problems: - Increase between the 3rd and 6th weeks Related factors: - Parental stress, low parental resilience and changes in routines (Emotional problems) |
| Berasategi et al. (2021) | Exploratory and cross-sectional | N = 1,225 2-12 years | To analyse the well- being of children in various areas and related variables | Well-being of Children in Lockdown (WCL) | Emotional problems: - Increased crying, nerves, anger and sadness Related factors: - Gender: female and having access to an outdoor space at home (Emotional problems) |
| Carrillo-López and García- Prieto (2020) | Descriptive and cross-sectional | <i>N</i> = 116 8-12 years | To analyse the relationship between anxiety, weight and diet quality | Spence Children Anxiety Scale (SCAS) | Related factors: - Gender: female (Anxiety) |
| Carrillo-López et al. (2021) | Descriptive and cross-sectional | <i>N</i> = 116 8-12 years | To study the anxiety experienced by the students of Primary Education | Spence Children Anxiety Scale (SCAS) | Related factors: - Gender: female (Anxiety) |
| Castillo-Martínez et al. (2020) | Descriptive and cross-sectional | <i>N</i> = 397 8-18 years | To detect risk of relational problems and depression in minors | Children's Depression Inventory (CDI) | Emotional problems: - Depression scores similar to pre- pandemic ones Related factors: - Gender: female and age: over 12 years (more depression than those under 12 years) |
| Domínguez-Álvarez, López- Romero, Isdahl-Troye, et al. (2020) | Descriptive- correlational and longitudinal | <i>N</i> = 874 5-9 years | To analyse the relationship between emotional regulation skills and positive adjustment, and the role of parenting practices in this relationship | Emotion Regulation Skills subscale of the Social Competence Scale | Related factors: - Low socioeconomic status, difficulty in calming down, low-structured and low-focused parenting styles, little prosocial involvement, little social orientation and few routines (Emotion-regulation problems) |
| Domínguez-Álvarez, López- Romero, Gómez-Fraguela, et al. (2020) | Descriptive- correlational and cross-sectional | N = 1,123 3-12 years | To explore coping strategies and their outcomes, as well as the influence of stressors, context and age in this relationship | Strengths and Difficulties Questionnaire (SDQ) | Related factors: - Age: Pre-schoolers (more emotional problems than those older than 7 years) - Close COVID-19 contagions, low parental resilience, disengagement coping style, fear of the future, behavioural problems, hyperactivity, poor routine maintenance and low prosocial involvement (Emotional problems) |
| Erades and Morales (2020) | Descriptive- correlational and cross-sectional | N = 113 3-13 years | To assess emotional and behavioural reactions and sleep habits, as well as variables that facilitated adaptation and parental factors associated with symptoms | Ad hoc questionnaire of 15 items (α = .84) | Emotional problems: - Increase or appearance of emotional reactions Related factors: - Greater use of screens, less physical activity and greater safety measures of parents (Emotional problems) |
| Ezpeleta et al. (2020) | Descriptive- correlational and longitudinal | N = 226 Adolesc. | To know the state of mental health and its relationship to living conditions in confinement | Strengths and Difficulties Questionnaire (SDQ) | Emotional problems: - Decreased emotional problems after confinement Related factors: - Fear of contagion, concern for health, family stress, family conflicts, sleep problems, frustration, feeling overwhelmed and bored (Emotional problems) |

Table 1. Characteristics of the Reviewed Articles (continued)

| Study | Study Design | Sample | Objectives | Measures | Results |
|------------------------------|--|--------------------------------|---|--|---|
| Francisco et al. (2020) | Descriptive- correlational and cross-sectional | N = 1,480 3-18 years | To explain and contrast the psychological symptoms linked to confinement in children and adolescents from three countries with different restrictions (Spain, Italy and Portugal) | Spence Children Anxiety Scale-Parent Version (SCAS-P) Short Mood and Feelings Questionnaire-Parent Version (SMFQ-P) | Emotional problems: - Fewer mood problems than in Portugal - More symptoms of anxiety than in Italy Related factors: - Gender: male and not having an exit to the outside at home, such as terrace or garden (Anxiety) ² - Few people living at home (Mood problems) ² - Alterations: sleep, behavioural, cognitive and feeding (Mood problems and anxiety) ² |
| García-Adasme et al. (2021) | Observational and cross- sectional | <i>N</i> = 2,292 0-17 years | To study the consequences of confinement in the paediatric population, specifically on anxiety, behavioural problems and somatic symptoms | Revised Children's Manifest Anxiety Scale (CMAS-R) (for children under 7 years) Assessment of Stress in Children and Adolescents Exposed to COVID-19 Pandemic (ad hoc questionnaire for children aged 7 years and older) | Emotional problems: - 56.3% of children under 7 years of age presented 4 or more anxiety-related symptoms Related factors (in children over 7 years of age): - Gender: male, having a familiar who had suffered from COVID-19, parents directly involved in the pandemic, fear of contagion and unemployed parents (Anxiety) |
| Giménez-Dasí et al. (2020) | Descriptive and longitudinal | N= 167 3-11 years | To study the impact of confinement on psychological wellbeing | Sistema de Evaluación de Niños y Adolescentes (SENA) | Related factors: - Age: 6-11 years of age (more emotion-regulation problems than children of 3 years) |
| Gómez-Becerra et al. (2020) | Descriptive- correlational and cross-sectional | N = 972 3-18 years | To study the relationships between the psychological state and the fear of contagion in minors and to analyse these relationships during confinement and according to age | Strengths and Difficulties Questionnaire (SDQ) | Emotional problems: - Emotional symptoms from the beginning and increase during confinement Related factors: - Age: children (more emotional problems than adolescents) - Fear of pollution, contagion and social distancing, behaviours associated with fears about the virus, impact of fears about the virus, behavioural problems, hyperactivity, problems with peers and prosociality (Emotional problems) |
| Idoiaga et al. (2020) | Qualitative and cross-sectional | N = 228 3-12 years | To study the emotional coping in the situation caused by COVID-19 | Reinert method using Iramuteq software for lexical analysis | Emotional variables: - Emotions of fear, nerves, loneliness, sadness, boredom and anger, but also security, tranquillity and happiness for being in family |
| Lavigne-Cerván et al. (2021) | Multimodal and cross-sectional | N = 1,028 6-18 years | To study the consequences of confinement on anxiety, sleep and executive functioning | State-Trait Anxiety Inventory for Children (STAIC) | Emotional problems: - More anxiety in confinement than in previous studies Related factors: - Age: pre-adolescents and adolescents (more anxiety than children) - Sleep and executive functioning problems (Anxiety) |
| Liébana-Presa et al. (2020) | Correlational and longitudinal | N = 300 3-17 years | To analyse the relationships between stress, emotional intelligence and the intention to use cannabis, both before and after confinement | Student Stress Inventory-Stress Manifestations (SSI-SM) | Emotional problems: - Increase in the emotional component of stress with confinement Related factors: - Gender: female, attention to emotions and variables related to cannabis use: attitude, intention, social pressure and self-efficacy towards abstinence (Stress) |

Table 1. Characteristics of the Reviewed Articles (continued)

| Study | Study Design | Sample | Objectives | Measures | Results |
|---|--|------------------------------|--|---|--|
| Melero et al. (2021) | Correlational- exploratory and cross-sectional | N = 219 3-18 years | To analyse the relationship between parental variables and the symptomatology of their children | Ad hoc questionnaire of 31 items | Related factors: - Parental stress, little satisfaction with parenting and increased use of the expressive suppression strategy by parents (Anxiety and mood problems) ³ |
| Orgilés, Espada, et al. (2020) | Experimental with control group | N = 96 6-12 years | To contrast the psychological impact and coping styles of children who received the Super Skills for Life program before confinement with those who did not receive it | Impact Scale of the COVID-19 and Home Confinement on Children and Adolescents Coping Inventory to COVID-19 and Home Confinement in Children and Adolescents | Emotional problems: - Increased anxiety and worse mood in the control group during confinement Related factors: - Not having received the Super Skills for Life program, a coping style oriented to emotions and sleep, behavioural and cognitive alterations (Mood problems and anxiety) - Feeding alterations (Mood problems) |
| Orgilés, Morales, et al. (2020) | Descriptive- correlational and cross-sectional | N = 1,143 3-18 years | To study the emotional impact of confinement on children and adolescents in Spain and Italy | Impact Scale of the COVID-19 and Home Confinement on Children and Adolescents | Emotional problems: - More emotional problems in Spaniards Related factors: - Parental stress (Emotional problems) ⁴ |
| Orgilés, Morales, et al. (2021) | Descriptive- correlational and cross-sectional | N = 1,480 3-18 years | To study the coping strategies used and to analyse their differences between Spain, Italy and Portugal, as well as the relationship between different coping styles and adaptation | Impact Scale of the COVID-19 and Home Confinement on Children and Adolescents | Emotional problems: - Spanish children and adolescents used adaptation strategies, but also sought more comfort in their parents Related factors: - Non-task-oriented coping style (Depression) ² - Emotion-oriented and non-avoidance-oriented coping style (Anxiety and depression) ² |
| Orgilés, Espada, et al. (2021) | Descriptive- correlational and cross-sectional | N = 515 3-18 years | To analyse the levels of anxiety and depression in children and adolescents in Spain, Italy and Portugal, in order to find out the variables linked to worse well-being during the COVID-19 pandemic | Spence Children's Anxiety Scale-Parent Version (SCAS-P) Short Mood and Feelings Questionnaire-Parent Version (SMFQ-P) | Emotional problems: - Higher levels of anxiety in Spaniards - Higher levels of depression in Spaniards and Italians Related factors: - Parental stress (Depression and anxiety) ² |
| Orgilés, Francisco, et al. (2021) | Descriptive- correlational and longitudinal | N = 624 3-18 years | To analyse the evolution of the psychological well-being of children and adolescents in Spain, Italy and Portugal | Impact Scale of the COVID-19 and Home Confinement on Children and Adolescents | Emotional problems: - Increase of anxiety from the 2nd week of confinement to the 5th, and decrease in the 8th (no changes in mood problems) Related factors: - Parental stress (Mood and anxiety problems) ² - Living in a home with more square meters (Mood problems) ² |
| Pizarro-Ruiz and Ordóñez- Camblor (2021) | Descriptive- correlational and cross-sectional | <i>N</i> = 590 8-18 years | To analyse the consequences caused by confinement on the mental health of Spanish children and adolescents | Sistema de Evaluación de Niños y Adolescentes (SENA) | Emotional problems: - Emotional disturbances during confinement Related factors: - Age: adolescents (more anxiety, depression and emotion-regulation problems than those under 13 years of age) |
| Romero et al. (2020) | Descriptive- correlational and cross-sectional | N = 1,123 3-12 years | To study the effects of confinement on children and the influence of family variables on them | Strengths and Difficulties Questionnaire (SDQ) | Emotional problems: - Noticeable increase in emotional problems in confinement Related factors: - Parental stress, parental anxiety, parental depression, low parental resilience, soothing parenting style, low-structured parenting style, lack of routines, low prosociality, few social bonds, behavioural problems and hyperactivity (Emotional problems) |

Table 1. Characteristics of the Reviewed Articles (continued)

| Study | Study Design | Sample | Objectives | Measures | Results |
|-------------------------------|--|------------------------|--|---|--|
| Serrano-Martínez (2020) | Qualitative and cross-sectional | N = 682 0-4 years | To study parenting practices and the emotional impact of confinement | Ad hoc survey | Emotional variables: - Highest results in joy (70.7%), followed by anger (37.7%) and sadness (35.8%) |
| Tamarit et al. (2020) | Descriptive- correlational and cross-sectional | N = 523 13-17 years | To study the impact of sociodemographic variables and variables related to COVID-19 on the levels of depression, anxiety and stress in adolescents | Depression, Anxiety and Stress Scale (DASS-21) | Related factors: - Gender: female, to volunteer and to live an important life event in the pandemic (Depression, anxiety and stress) - More time looking for information about COVID-19 (Anxiety) - Not having suffered from COVID-19 and living in a house without a balcony (Depression) - Small house (Stress) - Not being in a romantic relationship (Depression and stress) |
| Tíscar-González et al. (2021) | Qualitative exploratory and cross-sectional | N = 71 7-8 years | To study the experiences of children in a situation of health alert with confinement | Graphic expression using illustration and self-report of 3 feelings | Emotional variables: - Increased results in sadness, fear and boredom |

Note. ¹Relationship studied in conjunction with behavioural and sleep problems. ²Relationship studied in conjunction with children and adolescents from Italy and Portugal. ³Relationship studied in conjunction with behavioural, sleep, cognitive and eating problems. ⁴Relationship studied in conjunction with children and adolescents from Italy.

al., 2020; Romero et al., 2020). Similarly, in four studies it was found that higher parental stress was related to more emotional problems in children and adolescents (Andrés-Romero et al., 2021; Ezpeleta et al., 2020; Orgilés, Morales, et al., 2020; Romero et al., 2020), in two papers it was related to mood problems and anxiety (Melero et al., 2021; Orgilés, Francisco, et al., 2021), and in another research it was related to depression and anxiety (Orgilés, Espada, et al., 2021). In another study, high scores in parental depression and anxiety were related to children's and adolescents' emotional problems (Romero et al., 2020).

Parenting styles have also been linked to emotional issues at the beginning of the COVID-19 pandemic. An unstructured parenting style has been related to emotion-regulation problems (Domínguez-Álvarez, López-Romero, Isdahl-Troye, et al., 2020) and emotional problems (Romero et al., 2020). Moreover, family conflicts have been linked to emotional problems in adolescents (Ezpeleta et al., 2020), and parental unemployment has been related to anxiety in their children (García-Adasme et al., 2021).

Variables Related to COVID-19 and Confinement

Fear of COVID-19 infection has been related in one study to anxiety (García-Adasme et al., 2021) and, in two other works, to emotional problems (Ezpeleta et al., 2020; Gómez-Becerra et al., 2020). This last study has also linked fear of social distancing and pollution to emotional problems. Access to an outdoor space during confinement has been shown to be a protective factor against anxiety in one of the studies (Francisco et al., 2020), whereas in another it has been related to more emotional problems (Berasategi et al., 2021). Likewise, a decrease in routines as a result of the pandemic has been associated with emotional problems (Andrés-Romero et al., 2021; Domínguez-Álvarez, López-Romero, Gómez-Fraguela, et al., 2020; Romero et al., 2020) and emotion-regulation problems (Domínguez-Álvarez, López-Romero, Isdahl-Troye, et al., 2020).

Coping Styles

Links have been found between an emotion-oriented coping style and mood problems (Orgilés, Espada, et al., 2020) and depression (Orgilés, Morales, et al., 2021), as well as anxiety in both studies. An avoidance-oriented coping style was associated with

emotional problems in one study (Domínguez-Álvarez, López-Romero, Gómez-Fraguela, et al., 2020), whereas in another it was linked to lower anxiety and depression (Orgilés, Morales, et al., 2021). Moreover, in this last study, a non-task-oriented style was associated with higher levels of depression.

Relationship with Other Psychological Problems

The psychological problems studied together correlated with each other. Behavioural problems and hyperactivity were linked to emotional problems in three studies (Domínguez-Álvarez, López-Romero, Gómez-Fraguela, et al., 2020; Gómez-Becerra et al., 2020; Romero et al., 2020). In addition, behavioural problems, as well as cognitive, eating, and sleep disturbances, were related to mood and anxiety problems in two studies (Francisco et al., 2020; Orgilés, Espada, et al., 2020). Similarly, sleep problems were associated with emotional problems in one study (Ezpeleta et al., 2020) and with anxiety in another (Lavigne-Cerván et al., 2021).

Discussion

The main objective of this systematic review was to examine the impact of the first stages of the pandemic on the mental health of Spanish youth, as well as to analyse the variables related to the emotional problems presented by this population. As expected, an increase in emotional problems was found in children and adolescents in the wake of the pandemic. These results are consistent with those found in the works of Duan et al. (2020), Nearchou et al. (2020), Imran et al. (2020), and Ma et al. (2021), which concluded that the pandemic and confinement had negatively affected the mental health of children and adolescents, with an increase in emotional problems.

As for the emotions experienced by Spanish children and adolescents during the lockdown, different results have been found, possibly explained by age. Thus, in studies with pre-schoolers, joy stands out (Serrano-Martínez, 2020). However, if the studies included older participants, the most frequent emotions were fear, sadness, and boredom (Idoiaga et al., 2020; Tíscar-González et al., 2021). These last results match those obtained in other works, which highlight fear in children and adolescents (Saurabh & Ranjan, 2020)

and boredom in adolescents when they do not follow their daily routines (Huyhua et al., 2020).

According to age groups, more emotional problems were found in older children and adolescents (Castillo-Martínez et al., 2020; García-Adasme et al., 2021; Giménez-Dasí et al., 2020; Lavigne-Cerván et al., 2021; Pizarro-Ruiz & Ordóñez-Camblor, 2021). Similarly, foreign studies found that adolescents had more psychological problems, especially anxiety and depression (Chen et al., 2020; Ma et al., 2021; Zhou et al., 2020). On another hand, in this review, it was observed that girls presented more emotional problems than boys, specifically depression and stress (Castillo-Martínez et al., 2020; Liébana-Presa et al., 2020; Tamarit et al., 2020). This coincides with the results of several studies reflecting higher rates of depression in girls (Chen et al., 2020; Ma et al., 2021; Zhou et al., 2020). These studies find the same results in anxiety, contrasting with the present paper, in which no clear gender differences were found in anxiety.

The family variables most related to the emotional problems of children and adolescents were parental stress, low parental resilience, and an unstructured parenting style, characterized by little regularity in their children's routines (Andrés-Romero et al., 2021; Domínguez-Álvarez, López-Romero, Gómez-Fraguela, et al., 2020; Domínguez-Álvarez, López-Romero, Isdahl-Troye, et al., 2020; Ezpeleta et al., 2020; Melero et al., 2021; Orgilés, Francisco, et al., 2021; Orgilés, Morales, et al., 2020; Romero et al., 2020). Likewise, parental stress has also been linked in other studies to stress reactions in children (Imran et al., 2020). These data are in line with those of Espada et al. (2020), which highlight the increased vulnerability of children and adolescents to suffer psychological alterations depending on the characteristics of family-style.

This review has found that emotional problems are related to variables associated with the COVID-19 pandemic. On the one hand, emotional problems were associated with fear of contagion (Ezpeleta et al., 2020; Gómez-Becerra et al., 2020) and, on the other hand, with changes in daily routines (Andrés-Romero et al., 2021; Domínguez-Álvarez, López-Romero, Gómez-Fraguela, et al., 2020; Domínguez-Álvarez, López-Romero, Isdahl-Troye, et al., 2020; Romero et al., 2020). These last results, concerning changes in routines, are consistent with those obtained by Fasano et al. (2021).

Moreover, coping styles are a factor to consider in emotional problems during a stressful situation such as the confinement in the first weeks of the pandemic. An emotion-oriented coping style was associated with greater emotional problems (Orgilés, Espada, et al., 2020; Orgilés, Morales, et al., 2021). This style, characterized by trying to reduce the emotional impact of a problem through avoidance or relief from others, was also related to increased anxiety and depression in Chinese children and adolescents at the beginning of the pandemic (Duan et al., 2020). In this last study, a problemoriented style, which encompasses strategies to solve it, was a protective factor against depression, as found in Spanish children and adolescents by Orgilés, Morales, et al. (2021).

Correlations between emotional problems and other psychological problems (cognitive, behavioural, feeding, sleep, and hyperactivity) may indicate their coexistence during confinement. In this regard, it should be noted that the studies reviewed by Marques et al. (2020) suggested that children and adolescents with psychological problems before the pandemic were more likely to develop new ones. In addition, in some studies reviewed in this paper, these other problems also increased during confinement, although to a lesser extent than emotional symptoms (Erades & Morales, 2020; Gómez-Becerra et al., 2020).

The interventions performed before and during confinement, which reduced its emotional impact, are also noteworthy. According to Orgilés, Espada, et al. (2020), being involved in a therapeutic protocol for emotional problems during the two years prior to the onset of the pandemic was associated with lower levels of anxiety and depression during confinement when compared to a control

group. The delivery of strategies, as well as the reduction of other psychological problems, allows preventing not only emotional problems (Orgilés, Espada, et al., 2020) but also some related factors reviewed in this work. On another hand, some interventions were performed during confinement, such as the one reported by Ruiz and Rodríguez (2021) with children between 7 and 12 years old, based on "mindfulness", which reduced anxiety and stress levels over the weeks.

Limitations, Strengths, and Future Lines of Research

The present systematic review has some limitations. First, despite carrying out a search with different methods and sources, no information of interest apart from that published was found. However, as this is a novel topic of study, at the moment there may be no grey literature on the subject. Secondly, a bivariate correlational criterion was the only one used for the collection of risk factors in emotional problems, to grant uniformity to the review. Therefore, associations must be interpreted with caution, as they do not imply causality in any direction. Finally, we carried out a review that collects different variables related to emotional problems, which has led to some difficulties in combining works and drawing conclusions. The studies collected evaluate different variables, which are subject to the operationalization of the different instruments. These variables sometimes encompass others: for example, the emotional problems assessed by the SDQ (Goodman, 1997; Rodríguez-Hernández et al., 2014) cover symptoms of anxiety and depression, measured separately with the instruments used in other studies.

This study also presents several strengths. First, as opposed to the last limitation, the decision to take several reference variables has allowed us to review more studies and obtain results with greater precision and representativeness. In this way, this review allowed us to determine clearly and qualitatively the impact of the pandemic on Spanish children and adolescents, as well as the factors related to this impact.

Knowledge of these factors associated with emotional problems in a pandemic situation with confinement allows opening lines of research to create profiles of higher vulnerability to circumstances of isolation. In this way, interventions can target these groups before and during future stress situations, whether pandemic or not. It would also be useful to review the impact of confinement and the COVID-19 pandemic on other problems, such as behavioural or sleep problems. Finally, despite having searched for studies conducted up to July 2020, only one study carried out subsequently was found, in which no differences in depression and anxiety were observed compared to pre-pandemic reference samples (Quero et al., 2020). Therefore, it is necessary to carry out more studies to determine how emotional problems have evolved from confinement and the beginning of the "new normality" up to one year later, as well as to compare the emotional state in this reality with the one before the pandemic.

Conclusions

The present systematic review has revealed the emotional impact of COVID-19 confinement on Spanish children and adolescents between March and June 2020. Differences were found in these emotional problems, generally more common in older children and adolescents as a function of age, and in girls as a function of gender. In addition, factors related to these problems were reviewed, such as family variables (e.g., parental stress, low parental resilience, and unstructured parenting style), pandemic-related variables (e.g., fear of contagion and changes in routines), emotion-oriented coping style, and other psychological problems. Knowledge of these factors is relevant for the design of interventions that can prevent the impact of other similar situations.

Conflict of Interest

The authors of this article declare no conflict of interest.

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