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The impact of COVID-19 on adolescents' mental health in Catalonia (Spain): a qualitative study

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Abstract:	<p>This study aimed to understand the experiences of adolescents regarding the perceived impact of COVID-19 on their mental health in Catalonia (Spain). A qualitative exploratory methodology was used with a purposive sample of 30 high-school students regarding their experiences of the self-perceived impact of COVID-19 on their mental health. Data were thematically analyzed using Braun & Clarke method. Three main themes emerged from the data: (i) the challenge of living confined, (ii) the footprint of COVID-19 on adolescents' mental health, and (iii) school dynamics during the lockdown. The COVID-19 pandemic negatively impacted adolescents' mental health, and adolescents perceived a lack of emotional support from educational centers. Therefore, incorporating emotional support in educational centers and offering emotional self-management tools to young students should be a priority. School nurses can play an essential role in recognizing and managing emotional needs and being the natural link between educational and primary care centers.</p>

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8 ABSTRACT
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45 **Keywords:** Mental Health; Adolescents; COVID-19; Nursing school; Primary care.
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INTRODUCTION

The coronavirus disease (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was declared a pandemic on March 11th, 2020. Many countries followed precautionary principles and imposed restrictions on citizens to limit the spread of the virus, such as promoting physical distancing, limiting the movement of people, and closing educational institutions and workplaces (Heavy et al., 2020). To control the contagion of COVID-19, the Spanish Government declared, on March 14th, 2020, a State of Alarm and confinement for the entire population (Pizarro-Ruiz et al., 2021).

From March 14th to April 26th, 2020, the population of Spain was confined at home for six weeks. To control the spread of COVID, the Spanish government announced the closure of schools and colleges throughout the country on March 14th. This closure was maintained until September 14th, 2020, when adolescents and children returned to face-to-face classes at educational centers, which led to essential changes in the management and maintenance of classes for both children and adolescents. In addition, online teaching methods were adopted by most educational centers, causing changes in routines and negatively influencing emotional well-being and organization in the learning acquisition of teenagers (Tarkar, 2020).

Factors associated with mitigation measures, such as social distancing, family discord, school closures, fear of the future, and quarantine, altered the lives of adolescents (OECD, 2020; Bosch et al., 2022). These disruptions include changes in routines and breaks in the continuity of learning associated with school closures. In addition, early research has indicated an increased impact on mental health in adolescents, presenting higher levels of depression and anxiety and a greater likelihood of post-traumatic stress symptoms (O'Sullivan et al., 2021; Pizarro, 2021; Wang et al., 2020; Zhou, 2020).

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3 Previous evidence with the adolescent population indicates high levels of stress,
4 anxiety, and other psychosomatic symptoms due to COVID-19, identifying protective factors
5 such as being able to talk to friends and sleeping for an adequate time (Chen et al., 2021;
6 Cohen, 2021). Risk factors include having suffered from COVID-19 or having family
7 members or acquaintances previously diagnosed with COVID-19 (Wang et al., 2020). The
8 dimension of fear or anxiety during the pandemic has been related to high uncertainty and
9 concern about losing close people, with younger people being the most affected (Ozamiz-
10 Etxebarria et al., 2022). On the other hand, other studies also identified the loss of social
11 contact, changes in social relationships, loneliness, and anxiety about homeschooling as
12 factors associated with worsening adolescents' mental well-being (McKinlay et al., 2021;
13 O'Sullivan, 2021). In addition, families face multiple challenges: reorganization of daily life,
14 coping with the stress of quarantine and social distancing, homeschooling, increased pressure
15 to work from home and care for school-aged children at home at the same time, reduced
16 freedom and privacy, and economic concerns due to business closures (Pizarro-Ruiz, 2021;
17 Fegert et al., 2020).

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38 Regarding the emotional consequences of health events, a preliminary study
39 conducted in the province of Shaanxi (China) during the second week of February 2020, in
40 which the Chinese population was confined, showed that the most common psychological and
41 behavioral disorders of 320 children and teenagers were bonding problems, distraction,
42 irritability, and fear of asking questions about the pandemic. Furthermore, regarding
43 differences according to age, children between 6 and 18 years showed more attention
44 problems and persistent inquiry (Jiao, 2020).

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55 Evidence from Europe with parents and adolescents evaluates the initial impact of
56 quarantine in three countries (Spain, Portugal, and Italy), showing that parents see their
57 children as more irritable, lonely, restless, and uncomfortable (Francisco et al., 2020).
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3 Another study conducted in Spain on people between 19 and 84 years of age during the
4
5 confinement period showed high levels of emotional impact, reflected by frequent problems
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7 in falling asleep and emotional symptoms such as worry, stress, hopelessness, anxiety,
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9 nervousness, and restlessness (Sandín et al., 2020). However, in Catalonia (Spain), evidence
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11 regarding adolescents' experiences managing the COVID-19 lockdown and its impact on
12
13 mental health is scarce. These data are crucial to highlight the needs of students and the
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15 educational system, especially during health crises. Therefore, this study aimed to understand
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17 the experiences of adolescents between 12 and 18 years of age regarding the self-perceived
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19 impact of COVID-19 on their mental health.
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24 METHOD

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27 This was an exploratory qualitative study. This design allows one to understand a
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29 specific phenomenon in a specific context and is very useful when studying little-known
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31 phenomena (Polit & Beck, 2017). Within the 'Escoles Sentinella'
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33 (<https://escolessentinella.cat/escoles-sentinella/>) project, this study aimed to understand the
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35 experiences of adolescents between 12 and 18 years old regarding the self-perceived impact
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37 of COVID-19 on their mental health. Preliminary data collected during the 2020–2021
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39 academic year already highlighted the negative impact of the confinement period, as part of
40
41 the pandemic, on their mental health, especially among older schoolchildren. Thus,
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43 adolescents aged between 12 and 18 from nine sentinel schools belonging to different
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45 sociocultural contexts of Catalonia were invited to participate in the study. Heterogeneous
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47 sampling was sought to include diversity in the data, thus not limiting the results to a specific
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49 group or location (Robinson, 2014).
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55 The study obtained the approval of Ethics Committee IDIAP Jordi Gol (reference
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57 20/192-PCV). The centers then proceeded with the collection of information. Before starting
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3 the study, participants resolved their doubts with a research team member. Likewise, efforts
4 were made to ensure that complete information was provided to participants and their families
5 (in the case of minors) and that they signed an informed consent document before the
6 interviews. All recruitment management was carried out entirely by team members of
7 researchers through contact and direct coordination with educational centers.
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15 Data were obtained through semi-structured interviews, a tool that allows personal
16 information to be obtained in a guided manner with maximum credibility (Polit & Beck,
17 2017). The interview script was created based on previous evidence and the research team's
18 interests. Two mental health nurses agreed upon the first draft of the interview, an expert
19 qualitative researcher, and two secondary school teachers. The interview script included the
20 following topics: (for adolescents) description of previous and current mental health status,
21 self-perception of the impact of COVID-19 on mental health, emotional management of the
22 pandemic, barriers and facilitators to promoting mental health during the pandemic,
23 perception of the impact of social limitations, perception of the impact of the virtualization of
24 teaching, living with the family longer than usual, and the fear of becoming infected. In
25 addition, parents and teachers were asked about their perception of their own
26 children/students' mental health status in adolescence; possible causes and consequences;
27 barriers and facilitators to improvement, management, and promotion of mental health in
28 school; and management of incidents related to adolescent mental health at school or home. It
29 should be clarified that the interviews with parents and teachers were only used to confirm
30 our conclusions and interpretations from the data collected from the adolescents.
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53 Two authors interviewed students in the schools after coordinating with the center
54 directors. All interviews were audio-recorded and conducted in a safe and private space
55 within an educational center. Given the diversity of contexts, it was estimated that
56 approximately 80 students would be interviewed. Nevertheless, this was reduced to 30 when
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3 data saturation was identified. In addition, three mothers and three teachers were interviewed
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5 to discuss the experiences described by the students. This action was fundamental in
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7 confirming the results' interpretation, including complementary views. All information
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9 regarding the identity and origin of the participants was kept anonymous. The transcripts were
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11 kept in a secure space within university facilities, protected with a security key, and with
12
13 limited access to the qualitative research team.
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17 The data were analyzed following the thematic analysis method proposed by Braun
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19 and Clarke (2022). It includes six key moments: 1) familiarisation with the data, 2) coding, 3)
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21 categorization, 4) review of the categories, 5) definition and naming of the categories, and 6)
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23 writing the report. Two researchers performed this procedure in parallel to provide more
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25 credibility and consistency in results. In addition, Atlas.ti® software was used to facilitate the
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27 management of texts and data analysis, providing greater rigor to the procedure. Guba and
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29 Lincoln's (1981) criteria for credibility, transferability, dependence, and reflexivity were
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31 applied throughout the process. Consensus meetings were conducted with two expert
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33 researchers, constant discussions, and debriefing sessions. Reflective and critical thinking
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35 guided the entire process and provided robustness to the findings. Each data analyst reviewed
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37 the codes, themes, and interview quotations separately, and all disagreements were resolved
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39 through discussion. Finally, the findings were discussed with five experts in three sessions,
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41 and no changes were proposed.
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48 FINDINGS

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51 Twenty adolescents (17 girls) participated in this study. Further details on age are
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53 presented in Table 1. Three mothers (mean age, 45 years) and three teachers (mean age, 40
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55 years) also participated in the study. Pseudonyms were used to preserve participants' identity.

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57 (Insert Table 1 here)
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3 Three themes and numerous descriptive codes emerged. The latter was reduced to 11
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5 (Table 2). The data did not reveal gender or age differences in speech.

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7 (Insert Table 2 here)

8 9 10 **The challenge of living confined**

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12 The pandemic forced people to change their ways of being at home, and the period of
13
14 confinement forced them, including young people, to remain in their homes without leaving.
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16 This situation caused adolescents to face new and challenging situations. One involved the
17
18 effect of restrictions due to COVID-19. This situation generated adolescents' feelings of a
19
20 lack of freedom to carry out their usual activities. It also highlighted the impediment to
21
22 visiting their most vulnerable relatives owing to the restrictions imposed. This restriction was
23
24 accompanied by anxiety, given the impossibility of seeing their loved ones in person (beyond
25
26 their parents). Likewise, adolescents also reported fear that their loved ones could contract the
27
28 disease and they would die without being able to say goodbye to them. Being limited to going
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30 out or the impossibility of getting together with friends in bars or other leisure events caused
31
32 the most significant impact, especially on those who, in normal conditions, stayed in their
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34 homes for a short time.
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41 *No, I mean, it affected me not being able to hug my grandparents and also checking the*
42 *news to see if one of them has COVID-19 and something happened to them. (Susana, 15*
43 *years old).*

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46 *On the third day, I was already falling to the ground, I no longer knew where to go, and*
47 *my mother was upset, in a certain way, by the fact that I wanted to be upside down and*
48 *did not know what to do (Gemma, 16 years).*

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56 Regarding daily life during confinement, the participants identified valuable learning spaces
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58 in family relationships, such as private spaces for meditation, cooking together or playing
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3 board games. As a result, new spaces for sharing with the family were created, and activities
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5 focused on crafts and cooking recipes. As a result, the participants could positively value
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7 family time in daily life, consolidating ties with fathers/mothers and strengthening bonds with
8
9 brothers and sisters. The main benefits of the confinement period were the consolidation of
10
11 family ties and the promotion of spaces for reflection and personal rest. They also valued that
12
13 the pandemic allowed them to acquire self-responsibility regarding the importance of self-care
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15 and susceptibility to contracting the disease. The pandemic situation forced the
16
17 implementation of online home learning, which required self-learning behavior; however, the
18
19 pandemic also promoted a sense of preference for self-learning behavior due to the fear of
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21 infecting loved ones during periods of high infection and mortality rates.
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27 *Before, you could not because the adults had to work and the little ones had to go to*
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29 *school or institute, so there were few hours to be together. So, it was good for us all to*
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31 *get together at home (Julia, 15 years old).*
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34 *You have seen your family, well now you value seeing your family, your friends, being*
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36 *here on Sundays to play hockey, you value things much more than before. (Anna, 12*
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38 *years old)*
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42 Regarding the strengthening of family ties, it was observed among the participants the
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44 need to take refuge in their parents and in the people with whom they shared daily life during
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46 the period of confinement. This behavior helped them to strengthen the bond with their
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48 parents and siblings; thanks to the confinement, the participants valued other ways of being
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50 and sharing with their families.
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54 *Well, first, I talk with my peers. Because I am a very close person with my peers, we are*
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56 *always together a lot, and with my brothers, too, the whole family more, but more with*
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58 *both of them. (Carlo, 13 years old).*
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The footprint of COVID-19 on adolescents' mental health

COVID-19 impacted negatively and positively on participants. Negative experiences were mainly resumed as episodes of destabilization that exacerbated their symptoms (especially among those who had already been diagnosed with a mental health disorder), and general mood changes among those with no previous mental health diagnosis. Moreover, adolescents highlighted adolescents' main concerns going through a difficult stage due to the changes in this period. The difficulty lay in needing more preparation for higher education, especially in the 16–18 age group. Faced with this decision, some participants reported feeling very worried, helpless, and under high personal pressure in the face of success in their professional future. Furthermore, although most of the adolescents did not fear the impact of the virus on their bodies, as they believed that the disease develops mildly in adolescents, they said they were very concerned about the fear of infecting their most vulnerable loved ones.

I don't know, the things that happen to me affect me more, I feel sadder, more depressed, I think that has made me more vulnerable (Isabel, 16 years old)

Covid-19 doesn't scare me; I've been through it, and it wasn't that bad. I was sick for a few days but nothing much, like a cold. The same thing happened to my parents (Amelia, 16 years old).

I have always worried about my studies, but I was happy. However, now I have more pressure because I want to go to college, and with everything we've been through this past year with the confinement, the online classes and everything, I don't know, I'm nervous (Maria, 17 years old).

Confinement forced students to manage their emotional health in ways they had never been presented with before. The students were not trained to deal with emotional self-

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3 management, so they did the best they could with their own resources and reveals a need for
4 emotional support in most of them. This finding was evidenced by the exacerbation of some
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6 of the symptoms typical of a previous diagnosis of a mental health disorder reported by
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8 adolescents, mostly anxiety.
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13 *Being locked up at home for a long time meant not being able to go out to play sports,*
14 *for example. Of course, being locked up affected me negatively because in my case it*
15 *helped to worsen my mental illness (Juan, 13 years old).*
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21 *Wearing a mask all this time; that gives me anxiety (Gemma, 16 years old).*
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24 Conversely, as previously mentioned, COVID-19 lockdown brought some positive
25 outcomes. Adolescents who reported feeling satisfied with their personal lives before the
26 pandemic developed adequate resources to face the consequences of this period. In addition,
27 in most cases, adolescents who showed greater emotional stability before the pandemic did
28 not describe their emotional balance as affected during the period of confinement, mainly
29 because of practicing some sports on a routine basis.
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38 *There were some awkward moments, especially when I got angry; the confinement*
39 *made everything a little weird, but it didn't affect me too much. I started doing sports on*
40 *the elliptical or running around the house and things like that; it didn't bother me much;*
41 *it was good for me because it distracted me (Carlo, 13 years old).*
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49 Adolescents expressed feelings of difference and personal growth because of the
50 pandemic; moreover, adolescents acquired maturity regarding the severity of the pandemic.
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53 *The confinement has made me know myself better. Before Covid, I was a pretty*
54 *influenceable person. I always followed what my group of friends did; it was better than*
55 *being alone. During the pandemic I had to explore myself and reflect a bit more on*
56 *myself, how I wanted to be, rethink my friendships, and so on (Flower).*
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3 Likewise, after confinement, through reflection and personal growth, they were able to
4 realize the convenience of some friendships and the value of establishing trustworthy
5 friendships, a fact that meant a strengthening of self-esteem and that was crucial to
6 consolidate identity.
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13 *I saw who was there and whom I could trust and whom I could not; those people with*
14 *whom I spoke, not daily, but I did talk and such, and I saw that these people are the*
15 *ones who are my friends and for whom it seems that I am too (Flor, 17 years old).*
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20 **School dynamics during the lockdown**

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23 One of the activities maintained during confinement was schooling children and young
24 people, which meant a drastic change in the teaching and learning of teachers and students,
25 respectively. One of the main changes was implementing classes in a virtual format. The
26 analysis of the interviews allowed us to identify essential findings on participants' perceptions
27 of the value of virtual classes during COVID-19. First, they valued them with a certain degree
28 of ambivalence. On the one hand, they considered that this methodology allowed them to
29 maintain contact with their classmates, continue with the academic program, and feel freer
30 when it came to being in class. However, on the other hand, most adolescents recognized the
31 poor learning obtained during virtual classes in confinement. In this way, the quality of
32 learning was perceived as causing significant damage to the teaching and learning process
33 during the pandemic. In their words, the main factor impeding learning was a lack of
34 motivation for the task.
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51 *I was attentive; I had to answer if I heard her [the teacher] saying my name or asking*
52 *me something. However, most of the time, I was with my cell phone or left alone to do*
53 *whatever I liked. (Gemma, 16 years old).*
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3 Similarly, Diana, a 41-year-old teacher, confirmed to us when asked about the quality
4 of learning through virtual classes.
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7 *It [teaching] was more difficult because you do not have personal contact, and I think*
8 *that helps them, especially adolescents, a lot. So, the teaching provided during the*
9 *lockdown had less quality.*
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14 The adolescents' self-perception of acquired learning was variable; for some, it was
15 practically null; for others, it consisted of organizing and knowing how to manage time alone.
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17 Once again, this question shows the importance of confinement in managing self-
18 responsibility and acquiring personal maturity in adolescence. Regarding the school's
19 approach to public spaces, most adolescents reported feeling uncomfortable with the measures
20 imposed by the educational centers during return to face-to-face sessions. Not being able to
21 interact with their peers was very frustrating, and it caused them discomfort, given the
22 impossibility of interacting spontaneously and freely in public spaces.
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33 *I did not learn anything. I did the exercises, and then they sent us the correction. We*
34 *even had to correct our exercises sometimes. So, I did not learn anything (Amelia, 16*
35 *years old).*
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41 In addition, adolescents claimed little or no emotional approach from educational
42 centers during the pandemic. They considered the measures to address this new school stage
43 insufficient or inappropriate. They mainly reported the need to have identified spaces or
44 reference figures for school support. The existence of more emotional support spaces in
45 educational centers was identified as necessary. Thus, adolescents demanded the presence of a
46 permanent psychologist at their disposal to be able to consult them in situations of stress and
47 emotional discomfort.
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3 *They are teaching us things instead for the future. It would allow students to say their*
4 *problems, propose things, and for teachers to help them with the things they need at that*
5 *very moment. (Juan, 13 years old).*
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10 DISCUSSION

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14 This study showed how the experiences of adolescents between 12 and 18 years of age
15 on the self-perceived impact of COVID-19 on mental health were fundamentally focused on
16 confinement, the mark it has left on their mental health, and the dynamics of the school during
17 this period. In general, the results coincided with recent findings from other investigations
18 regarding the impact of COVID-19 on adolescents' social and emotional development. For
19 example, in a study by Liang et al. (2020), adolescents reported higher rates of depression and
20 anxiety associated with the pandemic, and 14.4% of teenagers reported post-traumatic stress
21 disorder, whereas 40.4% reported having depression and anxiety. In another study focused on
22 girls, life satisfaction decreased from 81% before COVID-19 to 62% during the pandemic,
23 with the oldest teenage girls reporting the lowest life satisfaction values during COVID-19-
24 related restrictions (Von Soest et al., 2020).
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40 Regarding the period of confinement and its repercussions on adolescents, it was
41 worth noting the lack of freedom to carry out different daily life activities such as playing
42 sports, getting together with friends, and using leisure and fun. This finding coincides with the
43 study by Zeiler et al. (2021), carried out with girls who suffered from anorexia nervosa,
44 stating that they felt imprisoned and limited in their usual activities during the pandemic.
45 Furthermore, daily life during the lockdown was affected by global efforts to control the
46 pandemic, social distancing, and school closures, which drastically changed the lives and
47 routines of adolescents who stayed at home for long periods and limited their social contact
48 with peers (Shoshani & Kor, 2021). These disruptions to typical social and physical routines
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3 may lead to decreased social support, poorer stress regulation, increased loneliness, social
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5 isolation, and distress (Fegert et al., 2020). Similarly, it is essential to highlight adolescents'
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7 self-perceived benefits attributed to the confinement period. This fact coincides with the study
8
9 by Zhang et al. (2021) regarding the benefits of the pandemic in developing resilience and
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11 individual coping strategies because of confinement.
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15 Another aspect identified in this study involved the concerns reported by adolescents,
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17 especially the fear of losing loved ones or that the confinement will never end, topics that
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19 have already been explored (Masuyama et al., 2020), and gave rise to further research. For
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21 instance, the DESK cohort, a project aimed at monitoring high-school students aged 12 to 18
22
23 in Central Catalonia over time, analyses their behavior and other relevant aspects that may
24
25 affect their health and social and educational life (<http://deskcohort.cat/en/about-deskcohort/>).
26
27 Regarding mental health among young people, fear was the emotion that had the most
28
29 significant impact on the participants in this study. Adolescence involves numerous
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31 biopsychosocial changes and challenges, including independence from parents, exploration of
32
33 various domains of identity, coping with daily life, and school attendance difficulties. The
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35 concerns of adolescents during the COVID-19 pandemic identified in this study coincided
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37 with the available evidence on the subject; thus, adolescents were concerned about the
38
39 restrictions established by the government and not about the virus itself. These worries were
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41 associated with increased anxiety, new (or worsening) depressive symptoms, and decreased
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43 life satisfaction (Magson et al., 2021; Hawes et al., 2021).
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51 Moreover, evidence showed that adolescents who suffered a decrease in their family
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53 income and those who knew a close person or relative who died of COVID-19 were more
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55 likely to report poor overall well-being (Folch et al., 2022). Researchers currently point out
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57 that a long-term examination of the consequences of the pandemic on adolescents' mental
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59 health will be necessary (Lee, 2020; Viner et al., 2020). This need is supported by evidence
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3 that adolescent trauma can predict mental health impairments in adulthood (Johnson et al.,
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5 2018).
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8 Recent research (Distor & Nicomedes, 2020) indicates that during the pandemic,
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10 higher levels of resilience have been associated with lower stress levels and, therefore, better
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12 mental health. These data support the results of this study, given that adolescents who were
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14 less emotionally labile and more empowered in their self-esteem were less affected by the
15
16 consequences of the pandemic and favoring/probably being able to develop better health.
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20 As previously described and following similar evidence (Waselewski, 2020), the
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22 adolescents participating in this study experienced unmet needs for emotional support and a
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24 negative impact on mental health due to COVID-19. Connecting with friends and peers
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26 through virtual mediums while maintaining social distancing was critical in coping with the
27
28 impact of the pandemic, particularly given the critical growth and development that occurs
29
30 during adolescence. The data from this study highlights the need for emotional support for
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32 adolescents. Specifically, participants demanded the presence of an expert mental health
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34 professional in the educational centers to whom they could turn when needed. Given the non-
35
36 existence of the resource or difficulty in accessing it, adolescents effectively self-managed the
37
38 situation through self-responsibility and mutual care. In short, adolescents learned to care for
39
40 each other among their peers, confirming the friendship protection hypothesis proposed by
41
42 Boulton et al. (1999), which shows how friendship factors can improve the impact of COVID-
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44 19 among adolescents (Espinoza & Hernandez, 2022). This study identified the online
45
46 learning methods implemented during the COVID-19 pandemic as a stressor and source of
47
48 student dissatisfaction. There is currently debate about the pros and cons of online learning,
49
50 especially among children and adolescents. Few researchers believe that online learning at
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52 this age results in notable academic progress among students (He et al., 2021). Furthermore,
53
54 many parents of adolescents report concern not only about the academic effects of this type of
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3 learning but also about the physical problems that online learning may cause their children,
4 such as obesity or vision problems (Robinson et al., 2017; Strasburger et al., 2010).
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8 Regarding satisfaction with learning during the pandemic, it should be noted that in
9
10 Canada, students who attended the institute partially, with the rest of the time online, reported
11 being partially satisfied, and those who did all their learning online reported less satisfaction
12 (Vaillancourt et al., 2022). On the other hand, in India, adolescent students showed great
13 acceptance and positive attitudes toward online learning during the COVID-19 crisis (Khan,
14 2020). Therefore, the variability in student satisfaction with these methods may differ.
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23 Consistent with other available evidence (Tarkar, 2020), this study identifies online
24 classes or "e-learning" as disruptive for students, teachers, and parents alike. During
25 adolescence autonomy is developed through the redefinition of roles and ties in the family
26 (Fioretti et al., 2020); however, this study shows that confinement truncated this process despite
27 the efforts to adapt using spontaneous self-management strategies such as the use of video calls
28 with friends, seeking mutual support, engaging in social networking, and practicing
29 introspection. Some of the adolescents stated that the lack of face-to-face interaction with
30 teachers and peers made it difficult to maintain motivation and commitment to one's learning.
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32 The transition to the virtual classroom may have hindered the learning process, as it limited
33 their access to immediate support and feedback. It should be noted that this disruption and
34 changes in the learning environment during the pandemic could also have affected the cognitive
35 and intellectual growth of the learners. The lack of interactive and personalized instruction on
36 guidance could have hindered the development of critical thinking and problem-solving skills.
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38 In addition, the predominant emphasis on homework and assessments could have hindered the
39 development of critical thinking and problem-solving skills. The online classes required a high
40 degree of self-study and autonomous work, which forced adolescents to quickly develop this
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3 competency. Although no one was prepared for the impact of a pandemic, students managed it
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5 autonomously by drawing on their own personal resources.
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8 This finding could be explained considering that adolescents have a resilience capacity that
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10 helps them develop their social and emotional skills, as well as their emotional regulation
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12 (Leipold et al., 2019), which seems to reduce stress even in moments like those experienced
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14 during a pandemic (Sakka et al., 2020). In addition, the adolescents interviewed emphasized
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16 that their schools did not adequately address how to manage on an emotional level all that
17
18 happened during the pandemic. This finding is explained by the fact that during the COVID-
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20 19 pandemic, most of the educational institutions that worked with adolescents prioritized
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22 health measures to stop the spread of the virus, leaving aside the emotional aspects.
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27 This study has some limitations that must be considered. First, it must be noted that most of
28
29 the adolescents who agreed to participate were those motivated and interested in the topic;
30
31 thus, some voices may have remained unheard and could have affected the results. Second,
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33 even though, some mothers and teachers were interviewed, their discourses were used only to
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35 verify adolescents' experiences. It would have been positive to include more parents and
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37 teachers to explore the phenomenon from a broader approach; however, this was not the aim
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39 of this research.
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43 44 IMPLICATIONS FOR PRACTICE

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46 The COVID-19 pandemic posed a challenge for adolescents because most of their
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48 socialization activities were abruptly interrupted. Mainly, the confinement had negative
49
50 consequences on the adolescents' mental health, due to the fear of becoming infected and
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52 being able to infect their loved ones and having to adapt their activities with family, friends
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54 and school. Regarding the latter, the adolescents emphasized that they perceived a lack of
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56 emotional support from the educational centers.
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3 The results of this study highlight the importance of promoting mental health in adolescents at
4 all levels. Therefore, professional specialization and advanced practice in treating and
5
6 preventing mental health problems in schools, especially in countries where school nurses are
7
8 not common. Consequently, it is imperative to engage management and coordination between
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10 educational centers and health care centers, not only in terms of controlling health within the
11
12 school but also in managing adolescent emotions in educational contexts. Furthermore, in
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14 training future nurses, it is essential to establish content focused on emotional self-
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16 management, not only as a tool for personal growth but also as a fundamental competence of
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18 humanized care offered to people.
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24 This study shows that professional specialization and advanced practice in the treatment and
25
26 prevention of mental health problems in schools is required, especially in countries where
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28 school nurses are not common. This requires a commitment on the part of political,
29
30 administrative, and professional bodies to promote management and coordination between
31
32 schools and health centers, not only in terms of health control within the school but also in the
33
34 management of the emotions of adolescents in educational contexts. It is not a matter of
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36 referring students to specialized professionals in the field of mental health or having them
37
38 come to schools from time to time but of school nurses taking on this role by educating,
39
40 preventing, and treating mental health problems in schools. Finally, there is a need for a
41
42 regular and stable space in schools where students can share with their school nurse their
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44 emotions and their personal resources to cope with difficulties. These spaces will allow early
45
46 detection of irregular situations and rapid intervention.
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Table 1: Characteristics of the sample

	Frequency	<i>Female</i>	<i>Male</i>
Gender			
<i>Male</i>	13		
<i>Female</i>	17		
Age (years)			
<i>12–15</i>	18	7	11
<i>16–18</i>	12	10	2

Table 2. Codes and themes

Codes	Themes
Effect of restrictions	
Daily life in confinement	The challenge of living confined
Benefits of the period of confinement	
Adolescent concerns	
Pre-pandemic emotional stability	
Adolescent concerns	The footprint of COVID-19 on the mental
Strengthening of the family bond	health of young people
Need for emotional support	
Self-responsibility	
Assessment of virtual classes	
Learning quality	The dynamics of the school during
School approach to public spaces	lockdown