How are children coping with COVID-19 health crisis?
Analysing their representations of lockdown through drawings

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Abstract
Spain is one of the European countries most affected of COVID-19, and also the one with the most stringent restrictions for children. This study aims to explore how COVID-19 lockdown affects children by analysing 151 drawings from children in lockdown. Findings were represented in four main categories: (1) Activities; (2) Emotions; (3) Socialization; and (4) Academic. The results indicate the need to manage the lockdown situation taking into account also children’s voices and by placing greater emphasis on social and inclusive policies to help alleviate the possible effects of the pandemic and the lockdown on them.

Keywords
Children, coronavirus (COVID-19), emotions, lockdown, wellbeing

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Introduction

The COVID-19 pandemic is having an unprecedented impact on children. Although at an epidemiological level, the impact of the virus is far less severe in children than in adults, with children often being asymptomatic (Cai et al., 2020) or presenting mild clinical manifestations (Jiao et al., 2020), the impact of social distancing and lockdown on youngsters should not be ignored.

Spain is one of the European countries that has so far been most affected by COVID-19. Cases began to multiply exponentially and uncontrollably in early March, prompting the Spanish government to declare a state of emergency on 14th March 2020, which included the closure of all schools in the country (Sánchez, 2020a) along with the mandatory lockdown of all citizens (Royal Decree 462/2020, 2020). In the same speech, the prime minister stated that the rules of this lockdown would be very stringent, possibly the harshest in Europe and even the world (Merino, 2020).

During that speech, there was not a single mention of children, although the rules were particularly restrictive for them. Children were completely forbidden from leaving their homes, with Spain being the only European country to adopt this measure (Grechyna, 2020). Although on the 26th April 2020, the Spanish government decided to allow children to leave their homes for 1 h a day (with restrictions), at the time that this investigation was carried out, children had been in complete lockdown for 3–5 weeks with no expectation that anything would change.

Paediatricians, psychologists and educators have warned of the threats that this lockdown may pose to children from a global health perspective (Grechyna, 2020; Jiloha, 2020), emphasising that it is essential to understand children’s needs to mitigate the harm that this situation may cause them (Dalton et al., 2020; Wang et al., 2020). However, little research has yet been conducted to explore the ways in which children integrate this lockdown from their perspective. Moreover, to the best of our knowledge, no studies have used child-sensitive, high engagement approaches to data collection, such as drawings, to analyse how children are dealing with the COVID-19 crisis and integrating the situation into their everyday thinking, including their needs and the things that they miss in these lockdown circumstances.

According to the World Health Organization (1946) “Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity” (p. 1). Moreover, WHO also emphasizes that health is the extent to which an individual or a group is able to change or cope with his or her environment (WHO, 1984). From a multidimensional standpoint, wellbeing has been defined as “a multidimensional construct incorporating mental/psychological, physical and social dimensions” (Columbo, 1986: 288). These models appear to adopt an ecological perspective, where health and wellbeing are regarded as states of equilibrium between the physical, psychological and social environments, emphasizing the holistic aspects and dynamic features of health (Piko and Bak, 2006).

Research conducted during previous epidemics, and studies that have already been published on COVID-19 (Jiao et al., 2020; Jiloha, 2020; Leung et al., 2020; Pisano et al., 2020), have highlighted a number of ways in which lockdown poses a threat to health and
wellbeing. These threats can occur at all three levels that are considered essential to wellbeing: the physical level, the mental or emotional level, and the social level. Furthermore, in the case of children, it is pertinent to add a fourth level—the academic level—if we are to analyse the wellbeing of children from an holistic point of view (Simovska et al., 2012).

Physical threats of the lockdown

The dramatic reduction of physical activity due to mandatory lockdown is perhaps one of the most evident consequences of complete lockdown (Lippi et al., 2020). Moreover, the majority of Spanish families do not have private outdoor space as they live in multifamily buildings. This means that children had to stay indoors uninterruptedly during the lockdown, which reduces the amount of bodily movement (Grechyna, 2020). Further, even before lockdown, half of the child population in Spain spent more than the recommended amount of time in front of screens (televisions, computers, video games, or other electronic devices) (Cabanas-Sánchez et al., 2019; Miguel-Berges et al., 2020) and experts have pointed out that this quantity is likely to be much larger during lockdown (Grechyna, 2020). In fact, researchers have found that in lockdown children are undertaking less physical activity, have much longer screen time, show irregular sleep patterns, and have less favourable diets, all of which is resulting in weight gain and a loss of cardiorespiratory fitness (Jiao et al., 2020; Jiloha, 2020; Wang et al., 2020).

Emotional threats of the lockdown

A recent review of published research on the impact of previous epidemic lockdowns (Brooks et al., 2020) has revealed that the psychological impact was wide-ranging, substantial, and long-lasting, with effects that included anxiety, anger, sleep disorders, and depression. Moreover, it was found that post-traumatic stress scores were four times higher in children who had been quarantined than in those who had not (Sprang and Silman, 2013).

In the case of COVID-19, research has found that lockdown is generating feelings of fear, worry, sadness, loneliness or stress (Idoiaga, et al., 2020, 2021; Jiloha, 2020; Pisano et al., 2020) but also resilience (Jiao et al., 2020; Leung et al., 2020) among children.

Social threats of the lockdown

Playing and interacting with peers is extremely important to children’s development (Howes, 2020). In “real life” schools provide spaces for children’s socialization every day (Wentzel and Looney, 2007), but now, with schools closed, the opportunities for play and interaction have been dramatically reduced. In addition, several investigations suggest that this lack of socialization due to lockdown is causing feelings of loneliness (Idoiaga et al., 2021; Singh and Singh 2020).
Academic threats of the lockdown

Social isolation and lockdown could cause children to miss school for a prolonged period of time. This new home-schooling scenario has not only been a shock to children’s social lives and learning but is also an unprecedented situation for families (Burgess and Sievertsen, 2020). In fact, teaching has moved online at an untested and unprecedented scale, whilst student assessments are also changing, and in some cases have even been cancelled. Moreover, in a study conducted in Italy by Pisano et al. (2020) it was found that in lockdown one in two children appeared to be more listless regarding the activities that they usually carried out before the pandemic, including studying and playing.

Therefore, and given that this lockdown situation poses a number of threats to the wellbeing of children, it is important to understand their reactions and emotions in order to adequately address their needs (Jiao et al., 2020). In addition, in recent years a growing movement driven by the United Nations Convention on the Rights of the Child (UN, 1989) promotes the importance of listening to children’s voices first-hand when it comes to matters that affect their lives (Robinson, 2014). For years, research has regarded children as passive subjects, focusing on aspects “about” children but without taking into account their voices as protagonists in the process. However, recent research highlights the need for research “with and for” children as active subjects in the research process to develop inclusive research (Idoiaga et al., 2020).

Therefore, given these considerations, the general objective of this research is to listen to the voices of children confined during the COVID-19 pandemic using a child-sensitive approach to data collection in order to understand how this crisis affects their physical, psychological, social and academic wellbeing, and to also identify their needs. In addition, we also aim to explore whether these threats to wellbeing or these needs vary between children of different ages.

Design

Sample

A total of 151 children participated in this study between 30th March and 18th April 2020. The sample was recruited in the Basque Country region located in Northern Spain. Of the sample, 62.09% were girls and 37.91% were boys. The mean age of the participants was 6.93 years ($SD = 2.30$) with an age range of 3–14 years. Of the sample, 80.41% live with other children (brothers, sisters, etc.) whilst 18.24% are the only child in the house. Further, 34.46% of our participants had no outside facilities (such as balconies, terraces, etc.) while 4.73% had access to relatively little outside space.

Data collection method

This research made use of a qualitative methodology of interpretative research using children’s drawings as a method of data collection. Drawing has itself been described as a discursive act—a visual discourse—through which children are able to create
representations of the world around them (Dockett and Perry, 2005). Focusing research on children’s own interpretations of their social and cultural context rather than adult interpretations makes their thinking visible to others (Robertson, 2000).

The drawings were also analysed using visual content analysis procedures (Rose, 2007). The analysis of visual content forces the researcher to go deeper into the images, discovering elements and patterns that would escape the casual observer (Schnettler and Raab, 2012), taking as basic premises the identification of the visual elements, the frequencies of appearance of these elements, and their subsequent analysis (Kalvaitis and Monhardt, 2012).

Therefore, in order to analyse the children’s representations and feelings regarding the lockdown situation resulting from the state of emergency amid the COVID-19 crisis, the participating children were asked to draw freely through the formulation of two questions (1) “What are you doing in lockdown?” and (2) “What do you miss?”

They were asked to draw a picture on a sheet of paper to answer each of the questions. The picture related to Question 1 was to be on the left side and that related to Question 2 on the right side. We then asked parents to tell us (in writing, on the same form) what their sons and daughters had said they had drawn, as we were unable to access children directly due to pandemic restrictions. In our interpretation, quantity/frequency was an important principle, but always based on both the elements of the drawing and the interpretation provided by the parents. This double analysis based on both the drawings and their explanation provided by the children through their parents offers a double-source reliability to our interpretation.

Procedure

Due to the lockdown situation, we decided to reach the children through their parents. The request to make the drawings was disseminated through various channels. Thus, requests were sent to all schools in the Basque Country region (Northern Spain) and the schools were asked to forward these questionnaires to the families. All parents received information and provided consent for their children to participate. Neither the parents nor the children received any reward for their participation. This research has obtained the approval of the Ethics Committee of the UPV/EHU [M10/2020/055].

Data analysis method

NVivo 12, QSR International software was used as a data management system to examine the drawings that serve to highlight the categories under study, as well as the basic socio-demographic data (age and sex). To analyse the content of the drawings, we conducted an analysis of the constituent elements. The general thematic categories were defined on the basis of the categories established by the two large blocks generated through the research questions posed to the children (1) “What are you doing in lockdown?” and (2) “What do you miss?” The following four main categories or levels were identified for the codification of the drawings: activities, emotions, socialization, and academic aspects.
Further, following a general review of the drawings, several sub-themes were added to each category. As a result, a total of 35 inductively and deductively defined codes were considered within the general categories. These dimensions were analysed by also taking into account the following age groups to which the children belonged: 3–5 years, 6–8 years, and 9–14 years. Each drawing was analysed individually by five researchers and the results were combined to create a consensus in each category and subcategory.

**Results**

A total of 153 drawings were collected, and 834 elements related to the different categories were coded. Exactly 406 elements were coded in relation to drawing “What are you doing in lockdown?” and 428 elements related to drawing “What do you miss?” The highest number of drawings belonged to children aged between 6 and 8 years (40.85%) followed by the 3–5 year age group (33.1%) and, finally, the 9–14 year age group (26.06%).

**What are you doing in lockdown?**

The drawings of the children represented, through 261 elements, a wide variety of activities that are taking place at home. First, within the “activities” category, 37 elements (14.17% of the total activities) represented certain physical activities carried out within the home, such as dancing, doing Zumba fitness or jumping rope, among others. However, other types of activities were also depicted in the children’s drawings. There were 34 elements (13.03%) representing daily activities such as cooking, cleaning and eating, whilst there were 41 elements (15.71%) representing artistic activities, such as children painting, singing or doing crafts, and 66 elements (25.29%) appeared in which children were drawn playing. Finally there were 83 elements (31.80%) representing the screen exposure of children. In 41 of those screen exposure elements, children were painted watching TV, in 32 children were painted with tablets or smartphones, and in 10 the children were playing videogames (see Figure 1).

Second, in the “emotions” category, we identified 21 elements. Two large subcategories can be distinguished according to the facial expression (smiling faces or sad faces) of the characters that appear in the drawings. In these, ambivalent emotions can be observed. Thus, happy faces or positive emotions are painted mainly in the drawings where children are with their families or playing (14 elements, 66.7%), whereas sad faces are painted (7 elements, 33.3%) mainly in drawings where children are locked up in their homes (Figure 2).

In the “social” category there were 68 elements, of which 49 (72.06%) were drawings where children appear together with their families, in 9 of the elements (13.24%) children appear alone, in 7 with their friends, mainly talking on video-calls (10.29%) and in 3 (4.41%) with other people (such as neighbours) (see Figure 3). Finally, in the “academic” category, there were 56 elements, all of which referred to schoolwork.

This first research questions yielded different answers according to the age range of the children. In the “activity” category, the young children (3–5 years) mainly represent...
activities related to the arts and playing at home whilst the older children (6–8 and 9–14 years) mainly represent activities related to new technologies (e.g. video games, computer, tablet). In the “emotions” category 9–14 old children showed a stronger tendency to express negative emotions (57.14%), which was less evident in the 6–8 (28.57%) and 3–5 (14.29%) year olds (see Table 1).

Within the “social” category, all children paint themselves mostly with their family. However, the 9–14 year old children are those that most paint themselves making
Figure 3. Examples of family activities drawn by the children during the period of lockdown.

Table 1. Drawings coded and collapsed from the original data set.

| Category                      | 3–5 years | 6–8 years | 9–11 years | Totals | Total percentage, % |
|-------------------------------|-----------|-----------|------------|--------|---------------------|
| Activities                    | 80        | 108       | 73         | 261    | 100                 |
| Daily activities              | 14        | 14        | 6          | 34     | 13.03               |
| Physical activities           | 9         | 19        | 9          | 37     | 14.17               |
| Artistic activities           | 17        | 13        | 11         | 41     | 15.71               |
| Home-playing                  | 22        | 29        | 15         | 66     | 25.29               |
| Screens                       | 18        | 33        | 32         | 83     | 31.80               |
| Mobile, tablet or computer    | 4         | 12        | 16         | 32     | 38.55               |
| TV                            | 13        | 17        | 11         | 41     | 49.40               |
| Video games                   | 1         | 4         | 5          | 10     | 12.05               |
| Emotions                      | 6         | 10        | 4          | 21     | 100                 |
| Negative                      | 1         | 2         | 4          | 7      | 33.33               |
| Positive                      | 5         | 8         | 1          | 14     | 66.67               |
| Social                        | 23        | 22        | 23         | 68     | 100                 |
| With family                   | 20        | 16        | 13         | 49     | 72.06               |
| Alone                         | 1         | 5         | 3          | 9      | 13.24               |
| With friends                  | 1         | 1         | 5          | 7      | 10.29               |
| Others                        | 1         | 0         | 2          | 3      | 4.41                |
| Academic                      | 9         | 22        | 25         | 56     | 100                 |
| Schoolwork                    | 9         | 22        | 25         | 56     | 100                 |
Figure 4. Examples of physical activities that children miss.
video-calls with their friends (71.43%), whilst the 6–8 year old children are those who mostly paint themselves alone (55.5%). Finally, the differences according to age in the “academic” category were particularly striking. We observed that 16.07% of the elements were painted by children aged from 3 to 5 years, 39.29% by children aged from 6 to 8 years and 44.64% by those aged from 9 to 12 years (see Table 1).

**What do you miss?**

In response to the second research question *What do you miss?* 428 elements emerged. First, within the “physical activity” category it is notable that there were 47 elements representing physically active activities and only one representing a sedentary activity (playing video games). Within the physical activities there were 26 drawings (55.32%) that depict children playing, 19 (40.43%) in which children were practising team sports and two (4.25%) where children were running (see Figure 4).

With regard to the “emotions” category, 16 elements were found, of which 15 were shown in drawings of happy faces whilst a sad face appeared in only one, and in this sad face the children in the drawing are sad because they have been arrested by the police for going out onto the street. Further, the “social” category carried significant weight, with 154 elements. In these drawings the children draw themselves with friends in 105 elements (68.18%), with family such as grandparents and cousins in 43 elements (27.92%),

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**Table 2.** Drawings coded and collapsed from the original data set.

| Activities children are doing in confinement: What do you miss in the lockdown? | 3–5 years | 6–8 years | 9–11 years | Totals | Total percentage (%) |
|---|---|---|---|---|---|
| **Activities** | 14 | 17 | 16 | 48 | 100% |
| **Screens** | 0 | 1 | 0 | 1 | 2.08% |
| **Physical activities** | 14 | 17 | 16 | 47 | 97.92% |
| **Running** | 0 | 1 | 1 | 2 | 4.25% |
| **Team sports** | 3 | 7 | 9 | 19 | 40.43% |
| **Playing** | 11 | 9 | 6 | 26 | 55.32% |
| **Emotions** | 6 | 8 | 2 | 16 | 100% |
| **Negative** | 1 | 0 | 0 | 1 | 6.25% |
| **Positive** | 5 | 8 | 2 | 15 | 93.75% |
| **Social** | 51 | 62 | 42 | 154 | 100% |
| **With friends** | 31 | 44 | 30 | 105 | 68.18% |
| **With family** | 18 | 17 | 8 | 43 | 27.92% |
| **Alone** | 2 | 1 | 3 | 6 | 3.90% |
| **Academic** | 25 | 20 | 12 | 57 | 100% |
| **School** | 16 | 18 | 12 | 46 | 80.70% |
| **Teacher** | 9 | 2 | 0 | 11 | 19.30% |
whilst they draw themselves alone in 6 elements (3.90%). Further, in the “academic” category, 57 elements emerged. In 46 of those elements (80.70%) children draw their schools and in 11 (19.30%) their teachers.

With regard to age differences, all the children miss physical activities to the same extent. Nonetheless, the youngest children (3–5 years) mostly express that they miss playing (78.57%) and the oldest children (9–14 years) appear to mostly miss specific activities such as team sports (56.25%). Furthermore, the 6–8-year old children seem to equally miss playing (52.94%) and team sports (41.18%). In the “social” category, all children draw their friends, but the 3–5, and 6–8-year-old children also draw their family, particularly their grandparents. Finally, it is worth noting that all children miss school, particularly the 2–5 (34.78%) and 6–8 (39.13%) year-old children. Finally, children aged 2–5 years are the ones that most miss their teachers (81.82%) (see Table 2).

Finally, for this research question we decided to include a further category of analysis—the outdoors. That is, we thought it was interesting to identify which particular natural elements or places are missed by the children. A total of 153 elements were identified, 51 (33.33%) of which were paintings of natural elements of which the sun appeared most frequently, followed by green areas (e.g. grass, flowers), the sky, animals, the air, the trees, and the rain. The remaining 66.6% of the elements were specific places, of which the most

**Table 3. Drawings coded and collapsed from the original data set.**

| Missed activities: What do you miss? |
|--------------------------------------|
| Category                             | 3–5 years | 6–8 years | 9–11 years | Totals | Total percentage (%) |
| Nature                               | 16        | 21        | 14         | 51     | 100%                 |
| Sun                                  | 7         | 9         | 3          | 19     | 37.35%               |
| Green areas (grass, flowers, etc.)   | 4         | 6         | 4          | 14     | 27.45%               |
| Sky                                  | 4         | 4         | 2          | 10     | 19.61%               |
| Animals                              | 0         | 0         | 3          | 3      | 5.88%                |
| Air                                  | 1         | 0         | 1          | 2      | 3.92%                |
| Trees                                | 0         | 1         | 1          | 2      | 3.92%                |
| Rain                                 | 0         | 1         | 0          | 1      | 1.96%                |
| Places                               | 35        | 39        | 28         | 102    | 100%                 |
| Park                                 | 12        | 7         | 7          | 26     | 25.49%               |
| Street                               | 4         | 4         | 8          | 16     | 15.69%               |
| Swimming pool                        | 4         | 7         | 3          | 14     | 13.73%               |
| Football field                       | 2         | 7         | 4          | 13     | 12.75%               |
| Mountains                            | 4         | 6         | 2          | 12     | 11.76%               |
| Beach                                | 4         | 4         | 2          | 10     | 9.80%                |
| Camping                              | 4         | 2         | 0          | 6      | 5.88%                |
| Other                                | 1         | 2         | 2          | 5      | 4.90%                |
missed were the park, followed by the street, the swimming pool, the football field, the mountains, the beach, camping, and others.

There were no significant differences in natural elements according to age, since all of the children seem to miss the sun and the green areas the most. In reference to the places that children miss, the youngest children are those that miss the parks the most (46.15%), whilst the oldest children are the ones that miss the street the most (59%). Children in the middle age group miss a wide variety of places to almost the same degree, such as the park, the swimming pool, the football field, and the mountains (see Table 3).

Discussion

The findings of this research provide valuable information from the child’s perspective in terms of identifying how they have coped with COVID-19 lockdown situation. This research has given us an insight into what children are doing during this lockdown and what they miss, along with physical, emotional, social, and academic needs. Moreover, our findings have added value since they emerge from children’s own drawings (Robertson, 2000).

First, with regard to what children are doing during lockdown, it has been observed that children draw and paint in relation the activities in which they are engaged. At home, they carry out recreational and creative activities but most of these are somewhat sedentary such as those linked to arts, home-playing, or daily activities. However, the most worrying aspect of these home activities is that the majority of them (31.80%) are related to TV, smartphones, tablets, computers or video games. Other authors have also pointed out that in lockdown situations, children tend to adopt an abusive use of new technology devices (Jiloha, 2020; Qin et al., 2020; Rundle et al., 2020). In fact, our results indicate that children have relational, recreational, and physical needs that are being addressed by ICTs, which can lead to an unhealthy dependency on such devices, which, in turn, has a negative impact on their development. Furthermore, as several studies show, the abuse of these technological devices is related to poor sleep hygiene, a less healthy diet and a reduction in physical activity during lockdown, which could even lead to obesity (Jiao et al., 2020; Jiloha, 2020; Wang et al., 2020). Nevertheless, it should be noted that in times of lockdown new technologies are not always harmful to children as they are often the tools that allow them to carry out academic activities or to maintain contact with their loved ones.

With regard to physical activities, it should be highlighted that in the drawings analysed here, physical activities adapted to the home (dance, rope, jumping, zumba) emerged, although these represent only 14.17% of the total range of activities. These results are in line with other research which suggests that lockdown is having a physical impact on children, since they are presented with fewer opportunities to move their bodies (Idoiaga et al., 2021). In fact, both academics and health professionals have stressed the importance of physical activity for children during this lockdown (Grechyna, 2020; Lippi et al., 2020). In this regard, it is essential that authorities promote body movement activities among families, which can be practiced indoors during the lockdown, a
suggestion that has already been made by several researchers during this crisis (Chen et al., 2020; Fruhauf et al., 2020; Rundle et al., 2020).

In contrast, the drawings of what children miss tend to emphasise outdoor physical activity, playing, practising team sports, and running. In the drawings it was also represented their desire to visit parks, green areas, mountains, the beach or specific sports facilities (e.g. fields and pools) to practice those physical activities. In addition to these places, children also miss the natural elements, particularly the sun, which is significant since a lack of sun can be detrimental to children’s physical health (Lippi et al., 2020).

Second, on an emotional level, the drawings reveal how children have ambivalent emotions during lockdown. On the one hand, they are happy with their families, but on the other hand they are also sad because they feel locked up and alone (since most of the sad faces are painted by children that are alone). In contrast, happy faces appear to be related to the outdoors, even though in one of the drawings there was an expression of fear with regard to going out. This indicates that the lockdown situation is having an emotional impact on children and it shows that they are sadder, since they also express emotions of loneliness (Idoiaga et al., 2020; Jiao et al., 2020; Singh and Singh 2020).

Third, the results show that children miss social contact with their loved ones (e.g. friends, grandparents, and teachers). Moreover, in the activities that they have painted/drawn representing the lockdown, the activities that they like are usually those that they share with the people that are close to them. Social relationships are critical during this life stage, and as, pointed out by other authors, these severe restrictions with regard to social interactions could have a negative impact on children’s development (Howes, 2020).

Finally, on an academic level, although in lockdown children are doing schoolwork, they still miss their school. This reflects the fact that schools play a critical role not only in delivering educational materials to children, but also in terms of offering an opportunity for students to interact with teachers and classmates. Therefore, it would be highly desirable if schools could facilitate continued direct contact (using online platforms, for example) between children and teachers and between classmates during the period in which classes are suspended (which is predicted to be 6 months) (Wang et al., 2020).

This work also has certain limits that should be discussed. First, multi-modal data collection is often conducted when children are drawing... especially the younger ones. They talk, sing, narrate and draw and all this serve to give meaning to the expression. However, due to lockdown situation it was not possible for researchers to be with the children, and so we decided to ask their parents, even though this might create some interpretative bias. On the other hand, fewer drawings were collected from older children (youth), which is consistent with previous research (Literat, 2013), youth have a tendency to stop drawing in formal settings, such as a request like this, in an inquiry.

In conclusion, in view of these results it appears that children are in urgent need of physical activity and contact with the outdoors, along with the opportunity to maintain contact with their friends, classmates, loved ones, and teachers. It is also clear that due to the lockdown situation, it is not possible to meet these needs in a traditional way. Therefore, other alternatives and resources must be explored to avoid social isolation in youngsters, providing them with tools from the school and institutions to promote their social-emotional wellbeing, with importance being given to the latter and not only to their
academic development. Moreover, children need options for spending time in the outdoors and moving their bodies. In this sense, it will be important to develop strategies to promote the wellbeing of the children from an holistic perspective, by taking into account their physical, emotional, social, and academic needs.

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References
Brooks SK, Webster RK, Woodland L, et al. (2020) The psychological impact of quarantine and how to reduce it: rapid review of the evidence. Lancet 395(10227): 912–920.
Burgess S and Sievertsen H (2020) Schools, skills, and learning. The impact of COVID-19 on education. Avaialbe at: https://cutt.ly/MygIwxE (accessed 17 april 2021).
Cabanas-Sánchez V, Martínez-Gómez D, Esteban-Cornejo I, et al. (2019) Associations of total sedentary time, screen time and non-screen sedentary time with adiposity and physical fitness in youth: the mediating effect of physical activity. Journal of Sports Sciences 37(8): 839–849.
Cai J, Xu J, Lin D, et al. (2020) A case series of children with 2019 novel coronavirus infection: clinical and epidemiological features. Clinical Infectious Diseases 71(6): 1547–1551.
Chen P, Mao L, Nassis GP, et al. (2020) Returning Chinese school-aged children and adolescents to physical activity in the wake of covid-19: actions and precautions. Journal of Sport and Health Science 9(4): 322–324.
Columbo SA (1986) “General well-being in adolescents: its nature and measurement” (Doctoral dissertation, Saint Louis University, 1984). Dissertation Abstracts International 46: 2246B.
Dalton L, Rapa E and Stein A (2020) Protecting the psychological health of children through effective communication about COVID-19. Lancet 4(5): 346–347.
Dockett S and Perry B (2005) Children’s drawings: experiences and expectations of school. International Journal of Equity and Innovation in Early Childhood 3(2): 77–89.
Frühauf A, Schnitzer M, Schobersberger W, et al. (2020) Jogging, nordic walking and going for a walk-inter-disciplinary recommendations to keep people physically active in times of the covid-19 lockdown in Tyrol, Austria. Current Issues in Sport Science (CISS) 5: 100.
Grechyna D. (2020). Health Threats Associated with Children Lockdown in Spain during COVID-1. https://doi.org/10.2139/ssrn.3567670
Howes C (2020) Social-emotional classroom climate in child care, child-teacher relationships and childrens second grade peer relations. *Social Development* 9(2): 191–204.

Idoiaga N, Berasategi N, Eiguren A, et al. (2020) Exploring children’s social and emotional representations of the Covid-19 pandemic. *Frontiers in Psychology* 11: 1952.

Idoiaga N, Berasategi N, Dosil M, et al. (2021) Struggling to breathe: a qualitative study of children’s wellbeing during lockdown in Spain. *Psychology and Health* 36(2): 179–194.

Jiao WY, Wang LN, Liu J, et al. (2020) Behavioral and emotional disorders in children during the COVID-19 epidemic. *The Journal of Pediatrics* 221: 264–266.

Jiloha RC (2020) COVID-19 and mental health. *Epidemiology International* 5(1): 7–9.

Kalvaitis D and Monhardt RM (2012) The architecture of children’s relationships with nature: a phenomenographic investigation seen through drawings and written narratives of elementary students. *Experimental Eye Research* 18(2): 209–227.

Leung CC, Lam TH and Cheng KK (2020) Mass masking in the COVID-19 epidemic: people need guidance. *Lancet* 395(10228): 945–947.

Lippi G, Henry BM, Bovo C, et al. (2020) Health risks and potential remedies during prolonged lockdowns for coronavirus disease 2019 (COVID-19). *Diagnosis* 7(2): 85–90.

Literat I (2013) A pencil for your thoughts: participatory drawing as a visual research method with children and youth. *International Journal of Qualitative Methods* 12(1): 84–98.

Merino JC (2020) Sánchez defends his management: “we have adopted the most drastic measures in the world”. La Vanguardia.

Miguel-Berges ML, Santaliestra-Pasias AM, Mouratidou T, et al. (2020) Parental perceptions, attitudes and knowledge on European preschool children’s total screen time: the ToyBox-study. *European Journal of Public Health* 30(1): 105–111.

Piko BF and Bak J (2006) Children’s perceptions of health and illness: images and lay concepts in preadolescence. *Health Education Research* 21(5): 643–653.

Pisano L, Galimi D and Cerniglia L (2020). A qualitative report on exploratory data on the possible emotional/behavioral correlates of covid-19 lockdown in 4–10 years children in Italy. *PsyArXiv*.

Qin F, Song Y, Nassis GP, et al. (2020) Prevalence of insufficient physical activity, sedentary screen time and emotional well-being during the early days of the 2019 novel coronavirus (COVID-19) outbreak in China: a national cross-sectional study (3/31/2020). Available at SSRN: https://ssrn.com/abstract=3566176

Robertson J (2000) Drawing: making thinking visible. In: Schiller W (ed) *Thinking Through the Arts*. Amsterdam: Harwood Academic Publishers.

Robinson C (2014) *Children, Their Voices and Their Experiences of School: What Does the Evidence Tell Us?* Cambridge: Cambridge Primary Review Trust.

Rose G (2007) *Visual Methodologies: An Introduction to the Interpretation of Visual Material*. Thousand Oaks, CA: Sage.

Royal Decree 462/2020 (2020) Declaring the state of alarm for the management of the health crisis situation caused by covid-19. *Official State Gazette*. Available at: https://cutt.ly/gygS8FeRundle

Rundle A, Park Y, Herbstman J, et al. (2020) Covid-19 related school closings and risk of weight gain among children. *Obesity* 28(6): 1008–1009.
Sánchez P (2020a) Press Conference by the President of the Government After the Extraordinary Council of Ministers on the Coronavirus. La Moncloa: Presidency of the Government of Spain.

Schnettler B and Raab J (2012) Análisis visual interpretativo: avances, estado del arte y problemas pendientes. Paradigmas: Una Revista Disciplinar de Investigación 4(2): 79–122.

Simovska V, de Róiste A, Kelly C, et al. (2012) Is school participation good for children? Associations with health and wellbeing. Health Education 112(2): 88–104.

Singh J and Singh J (2020) COVID-19 and its impact on society. Electronic Research. Journal of Social Sciences and Humanities 2(1): 168–172.

Sprang G and Silman M (2013) Posttraumatic stress disorder in parents and youth after health-related disasters. Disaster Medicine and Public Health Preparedness 7(1): 105–110.

United Nations of Human Rights (1989) Convention on the rights of the child. Available at: https://www.ohchr.org/en/professionalinterest/pages/crc.aspx

Wang G, Zhang Y, Zhao J, et al. (2020) Mitigate the effects of home confinement on children during the COVID-19 outbreak. Lancet 395(10228): 945–947.

Wentzel KR and Looney L (2007) Socialization in School Settings. Handbook of Socialization Theory and Research. New York: The Guilford Press.

World Health Organisation (1946) Constitution of the World Health Organization. Geneva: World Health Organisation.

World Health Organization (1984) Health Promotion: A Discussion Document on the Concept and Principles: Summary Report of the Working Group on Concept and Principles of Health Promotion. Copenhagen: WHO Regional Office for Europe.