Journal of the Institute for Educational Research Volume 56 • Number 1 • June 2024 • 79–97 UDC 159.942.5.072-053.2 616.98:578.834]:316.614.5 ISSN 0579-6431 ISSN 1820-9270 (Online) https://doi.org/10.2298/ZIPI2401079P Original research paper

# INSIGHTS INTO CHILDREN'S BEHAVIORAL CHANGES DURING THE COVID-19 PANDEMIC: PERSPECTIVES FROM PARENTS DURING QUARANTINE IN SERBIA\*

**Svetlana Pavlović\*\*** ➤ ORCID: 0000-0001-7790-2692 *Institute of Criminological and Sociological Research, Belgrade, Serbia* 

**Isidora Micić** ➤ ORCID: 0000-0002-7266-7248 *Institute for Educational Research, Belgrade, Serbia* 

Ana Radanović ➤ ORCID: 0000-0002-6322-5165

Institute for Educational Research, Belgrade, Serbia

Ksenija Krstić ➤ ORCID: 0000-0002-3604-270X University of Belgrade, Faculty of Philosophy, Belgrade, Serbia

#### ABSTRACT

The research aimed to examine parental perceptions of children's reactions and behavioral changes related to the corona virus and the measures implemented to curb the pandemic. Due to the shutdown of educational institutions, the introduction of social distancing, and curfews, children spent most of their time within the family unit, with limited opportunities for socialization and playing with peers. Numerous studies have shown that quarantine measures can have serious psychological consequences on children and young people. In our study, 89 parents of children aged 3 to 11 years (M=6.79; SD=2.49; 58% girls) responded to three openended questions regarding observed behavioral changes in their children associated with the fear of the corona virus and quarantine measures. The research was conducted online during the state of emergency in Serbia. Using qualitative content analysis, 267 parental responses were analyzed, from which 28 categories were identified. Half of the parents noticed a fear of COVID-19 in their children, while the majority reported various changes related to quarantine

<sup>\*</sup> *Note.* This research was funded by the Ministry of Science, Technological Development, and Innovation of the Republic of Serbia (Contract No. 451-03-66/2024-03/ 200018).

<sup>\*\*</sup> E-mail: pavlovic.sc@gmail.com

measures. The most frequently mentioned were fear of going outside, asking questions about the virus, and the emergence of new behaviors. Parents observed reactions such as nervousness, intensified anger, sadness, anxiety, and difficulties in concentration and establishing routines. The results of this study provide important insights into children's functioning in a specific context, highlighting the significance of parental and school practices in situations of uncertainty and crises such as the COVID-19 pandemic.

Key words:

fear, COVID-19, quarantine, children, parents.

### INTRODUCTION

The World Health Organization (WHO) declared a pandemic caused by the COVID-19 virus on March 11, 2020. Subsequently, on March 15, 2020, the Republic of Serbia declared a state of emergency nationwide. Consequently, educational, cultural, sports and other institutions were temporarily closed, followed by regular curfews and numerous additional measures aimed at mitigating the spread of the COVID-19 virus. From March 21 to May 6, a curfew was imposed between 5 PM and 5 AM. As a result of these movement restrictions, children primarily stayed within the family circle, and educational content was delivered through national television channels and digital platforms (Zoom, Google Classroom, etc.).

Global health crises, such as pandemics and epidemics, often lead to reduced public activities, resulting in widespread effects on individuals, institutions, and society as a whole. The pandemic significantly affected the daily lives of children, particularly their mental health. Although children are less susceptible to contracting the corona virus, they are not immune to the various adverse psychological effects of the pandemic and quarantine measures (Panda et al., 2021). Isolation measures disrupted children's education, limited their social interaction and participation in regular activities, recreation, play, and extracurricular programs, and altered family dynamics (Pfefferbaum, 2021). The lack of structured routines from school and kindergarten, lack of socialization, distancing from peers, teachers, and close relatives, and reduced opportunities for maintaining healthy habits, such as physical activity and regular sleep, along with increased screen exposure, negatively impacted the mental health of children and youth (Brown et al., 2020; Xiang et al., 2020). Additionally, children exhibited a range of negative reactions, such as clinging to parents (need for continuous parental presence), attention problems, irritability, anxiety, obsessive information checking, fear for the health of loved ones, sleep disturbances, appetite changes, fatigue, nightmares, discomfort, and agitation (Jiao et al., 2020). Compared to adolescents, children were more susceptible to worry during the pandemic due to less information about the virus and the inability to contact

peers (for example, some children did not have access to mobile phones and the internet). Studies highlight the negative effects on children's overall development, including increased stress, externalizing behavioral problems, obsessive-compulsive disorder symptoms, feelings of isolation/loneliness, and changes in lifestyle and routine (Orgilés et al., 2020; Pisano et al., 2020; Romero et al., 2020). A review study on the impact of quarantine measures on children, adolescents, and their caregivers showed that behavioral and emotional problems related to increased anxiety, stress, anger, depressive symptoms, fear, sadness, and sleep problems predominated. At least 70-90% of children experienced deterioration in some aspect of their functioning (Panda et al., 2021).

It has been shown that children worry more when they are not informed about what is happening in the community, and they often express their concern as anger (Panda et al., 2021). Radanović and colleagues (Radanović et al., 2021a) demonstrated that the fear of the corona virus decreases with age. In an earlier study conducted during the pandemic, it was shown that younger children, aged 3 to 6 years, exhibited greater attachment and fear of family members getting infected compared to older children, aged 6 to 18 years. Older children more frequently showed signs of impaired attention and asked more questions about the corona virus (Viner et al., 2020). However, increased irritability, difficulties with maintaining attention, and clinging behaviors were observed in children of all ages. Additionally, higher levels of children's fear were associated with higher levels of general fearfulness, suggesting that the fear of the corona virus can be considered one of the medical fears as a subtype of specific fears, according to Ollendick (Ollendick, 1983).

In a study conducted in Italy and Spain, most parents recognized changes in their children's psychological functioning related to the implementation of quarantine measures (Orgilés et al., 2020). Parents noted deterioration in their children's emotional responses and behaviors, particularly regarding maintaining concentration, increased boredom, heightened irritability, and loneliness. Interestingly, the results of a study conducted in Italy showed that, alongside manifestations of defiant behavior and certain behavioral regressions, positive changes in behavior were also observed children appeared calmer, more cautious, attentive, and interested compared to the period before the pandemic (Pisano et al., 2020). Studying children's reactions in rare acute crises, such as the COVID-19 pandemic, provides the opportunity to collect data not subject to the limitations of retrospective findings. Furthermore, identifying and better understanding children's reactions in crisis situations can aid in creating preventive programs for similar crises, contributing to the preservation of children's mental health.

The Aim of the Study. Given the changes in children's daily lives due to measures implemented to prevent the spread of COVID-19, this exploratory study aimed to examine parental perceptions of children's reactions and behavioral changes related to the fear of the corona virus and the measures taken to curb the pandemic. The

research was conducted during the period of prescribed protective measures against the virus (from April 16 to May 6, 2020). We were interested in the changes parents observed in their children's behavior, emotional responses, and daily functioning during the state of emergency introduced to combat the infection in Serbia.

### **METHOD**

Sample. The sample consisted of 89 parents with children aged 3 to 11 years, reporting on their behavior. The average age of the children was 6.79 years (SD=2.49). In slightly more than half of the cases, parents completed the questionnaire reporting about their daughters (58% girls). The questionnaire was administered through the online platform SoSci (Leiner, 2020). Since face-to-face contact was not possible during the pandemic, participants were recruited using the snowball technique, by sharing the link via social media and personal contacts.

Questionnaire and Procedure. One of the common methodological problems in research on emotional reactions or behavioral changes in children is response bias related to recall (Moreno-Serra et al., 2022). Caregivers are often asked about children's behaviors that occurred in the past relative to the time of data collection for research, which can result in difficulties in recall or memory errors, making the validity of the data questionable. Our study was conducted during the state of emergency in Serbia. The naturalistic context allowed for more valid data, as parents reported on observed behavior in real time, reducing memory bias (Bornstein et al., 2020; Schwarz, 2007). The questionnaire consisted of two parts. Given the specific context and exploratory nature of the research, we wanted to provide parents with the opportunity to describe, in their own words and in as much detail as possible, the behaviors and reactions they observed in their children that they associated with the pandemic. Since conducting interviews was not feasible, we opted for an online questionnaire with open-ended questions. In addition to questions about the age and gender of the child whose behavior they were describing, parents were asked three open-ended questions about observed behavioral changes related to fear of the corona virus and quarantine measures. Each of the three questions initially contained a closed-ended question where respondents were asked whether they recognized fear of the corona virus in their children (in the first question) or behavioral changes related to quarantine measures (in the second and third questions). In the first question, respondents were asked whether they recognized fear of the corona virus in their children, and if they did, to describe the reactions and behaviors they associated with that fear. The second and third questions focused on describing the reactions and behaviors in children that they observed as a consequence of social distancing measures (first) and restrictions on mobility (second). The research was anonymous

and voluntary. Parents were instructed to complete the questionnaire for only one child. At the end of the questionnaire, links were provided to guidelines for parents: "How to Help Your Children During the Pandemic" and "Activities for Children of Different Ages." These guidelines served as a form of debriefing for parents and were compiled by the authors of the study, some of whom are certified psychotherapeutic counselors.

Data Analysis. The participants' responses were analyzed using content analysis (Braun & Clarke, 2021). A total of 267 responses were independently analyzed by two researchers. In the first phase of data coding, the researchers repeatedly read the participants' responses to familiarize themselves with the raw text and noted their ideas. In the second phase, initial codes, or key meanings from the content, were generated. An inductive approach was applied in the analysis, meaning that the categories were not predefined but emerged from the data. Within a single response, multiple categories could be identified. The responses to all three questions were first divided, based on whether the reactions were noticed or not in children that were associated with fear of the corona virus (question 1) or with quarantine measures (questions 2 and 3). Then, for each question, categories were identified separately. Coding of the responses was initially conducted at an individual level, with each researcher independently creating preliminary categories from the data. Following this, the researchers reviewed and reconciled the proposed categories. Subsequently, each researcher re-read the responses and coded them according to the initial coding scheme. Finally, the distribution of responses across categories by the two coders was compared. Any discrepancies were discussed, and the categorization of responses was resolved within the broader research team.

#### RESULTS

The content analysis of the collected responses yielded a total of 28 categories of responses, which are presented for each of the three questions posed. For each question, two broader categories were identified, indicating whether reactions and behavioral changes were recognized or not. Responses from parents who recognized fear or changes in behavior were categorized according to the type of changes or reactions described by the parents, while responses from parents who reported not noticing fear or changes in behavior were classified based on the explanations or behaviors described by the parents. The identified categories, their frequency, and examples of responses are presented in Tables 1, 2, and 3.

### Fear of Corona Virus

**Table 1.** Categories, frequencies, and examples of responses to the question regarding children's fear of the corona virus

Did parents recognize the fear n (%)	Category	Frequency n (%)	Example of response
Fear recognized 40 (45%)	Fear of going outside and getting infected	16 (40%)	Didn't want to wear a mask and didn't want to go for a walk, and if going out, it's exclusively on a bike.  Doesn't want to go outside, spends most of the time watching cartoons.  I recognize the fear in his refusal to go outside, even when the playground is empty. besides a slightly increased tendency to stay home, "I don't want to go out right now, it doesn't matter if the weather is nice"
	Asking questions	10 (25%)	Often asks questions about corona, how it started, whether someone intentionally released the virus and why When will it stop, can one die from it Often inquires about death, what it is, how it happens Often asks when the virus will end, wants to go to kindergarten, to grandma and grandpa, to the park. Fear of not washing hands when entering the house. That
	New fear not present before the pandemic	7 (17.5%)	is never skipped. I think it's good, of course, but now I think it's a bit too much reaction to such a "common" and regular thing.  In the first week of information appearing on TV, tics appeared, which lasted 7 days.
	Concern for loved ones	4 (10%)	She cried when she heard that the virus is where grandma and grandpa live.  Expresses increased fear for grandma and grandpa who don't live with us.
	Fear of police	3 (7.5%)	Afraid of the police, that they might arrest her and take her away for punishment.  Afraid of the curfew, that the police might come by, even though we are in the countryside
	Not recognized fear	30 (62.2%)	Showed no fear. There is no fear visibly expressed.
Not recognized fear 49 (55%)	Children don't feel fear because household members don't show fear	8 (16.3%)	Children don't feel fear because household members don't show fear.  I haven't recognized any fear at all. There is no panic or fear at home, so she doesn't feel fear either. The child is overwhelmed with school obligations, doesn't watch TV, we don't talk about the pandemic and I think nothing scares him.
	Nervousness and anger about the new situation	7 (14.3%)	There is no fear visibly expressed. More angry that she can't move freely.  He is nervous because he can't go out during the curfew, angry about the restrictions.
	Informing	4 (8.1%)	I haven't noticed fear in my child, more curiosity as to why he can't do some things like before, so he has a thousand questions and follow-up questions.

During data analysis, it was observed that 45% of parents recognized fear in their children related to the COVID-19 virus. Parents frequently reported recognizing a fear of going outside, or a fear of infection, which manifested as a refusal to leave the house, refusal to go out without a mask and gloves, and reluctance to be near other people. Even when children did go outside, parents noted that they were reserved and eager to quickly return indoors. Additionally, parents observed an increased frequency of asking questions from children about the origin of the virus, the end of the pandemic, death in general, and the death of loved ones. A certain number of parents noticed new behaviors in their children that were not present before the pandemic, such as purposeless hand washing, nail-biting, and involuntary twitching resembling tics. Moreover, parents observed that children were concerned for their loved ones, particularly for their parents and older family members living with them or separately. Finally, parents noted an intensified fear of the police, with children fearing that during the curfew, police officers would come "to take them away for punishment." More than half of the parents indicated that they did not notice any fear in their children related to the corona virus. Most parents briefly responded that there was no fear or that they did not recognize any fear. A certain number of parents concluded that their child was not afraid because they modeled their behavior on parents/household members who did not show fear regarding the new situation. From other responses, it can be inferred that some parents did notice certain reactions related to the pandemic but did not describe them as fear. For instance, parents observed other emotions in their children, such as nervousness or anger about being forbidden to go outside and other restrictions, and questions about the virus, which parents interpreted as curiosity and a desire for information.

## **Social Distancing**

**Table 2.** Categories, frequencies, and examples of responses to the question concerning reactions to social distancing measures

Did parents recognize changes in behavior n (%)	Category	Frequency n (%)	Example of the response
	Irritability	15 (25%)	Anger, sadness, and boycotting studying because he isn't in school and with friends.
	Verbal expression of missing physical contact	14 (23.3%)	Constantly mentions friends from kindergarten, brothers, sisters, grandparents. Can't wait to see them.
	Inquiries about socializing with friends	7 (11.7%)	He misses it, which is evident from his questions about when he will be able to see his friends again and how much he misses school and socializing.
Recognized change in behavior 60 (67%)	Deepening contact with parents, neighbors, and passersby	8 (13.3%)	Became attached to certain people in our surroundings with whom she previously didn't have much contact, e.g., neighbors.
	New behaviors	8 (13.3%)	Washes hands more often than usual, notices people with masks and talks about what she would like to do once this scary virus is over.
	Increased online communication	4 (6.7%)	Misses contacts with friends and relatives. Therefore, she talks to them via Skype, Viber, and meets with classmates on Zoom.
	Changes in communication	4 (6.7%)	When talking, she divides time into before and after the virus, and talks about when the virus is over.
No recognized change in behavior	Verbalization of needs, without behavioral changes	14 (48.3%)	There are no changes in behavior. He misses his peers, but since he has a sister, he has company every day and I don't see him suffering.
29 (33%)	No changes in behavior	15 (51.7)	He handled it normally since he knows how to play alone, it wasn't a problem.

When it comes to changes observed by parents in their children regarding restrictions related to social distancing, 66% reported recognizing such changes. The most prevalent changes pertained to irritability, which children expressed through complaints, crying, intensified fears, and increased negative emotions, such as anger. Besides emotional responses, children verbally expressed missing physical contact with close others, often talking about their friends from preschool and their playtime, or mentioning their grandparents. Notably, children frequently asked about when they could socialize again, questioning when they would return to preschool or school when they could play in the park with friends, or insisting on socializing with friends via phone. In this context, parents highlighted increased online communication, where children maintained contact with important figures, predominantly peers and grandparents, through various available digital platforms (Zoom, Viber, etc.). Children deepened contacts they could establish in person with neighbors or passersby they saw from the yard, those who were physically present, even if they were not previously close to the child. In some children, observed changes in communication included separating their narrative into before and after the virus or, for instance, refusing to maintain certain contacts they had previously. As with changes associated with fear, as a consequence of more frequent social distancing, some parents noticed the development of new behaviors in their children.

About a third of parents did not notice behavior changes in their children caused by social distancing. However, about half of them, although explicitly stating that there were no changes, observed that their child missed physical contact but also noted that the child compensated for this with other interactions (for example, intensified relationships with siblings and other household members). The other half generally normalized the situation, emphasizing that there were no problems, i.e., no changes in the child.

# **Mobility**

**Table 3.** Categories, frequencies, and examples of responses to the question concerning reactions to the mobility restrictions

Did parents recognize changes in behavior n (%)	Category	Frequency n (%)	Example of response
Recognized change in behavior 59 (67.8%)	Inquiring when the state of emergency will end	12 (19.6%)	Asks when it will all be over, when he can go to grandma and grandpa  Yes. Every morning he asks if the corona is over. He misses going to friends' houses, going to the park, visiting relatives  Yes, she is used to being in the park all the time. We have a small yard so she can go out, though it's not the same as being in the park with othe kids.  He really misses the daily training sessions he used to going, misses going out into nature, and the weekly family lunches outdoors.
	Children miss being outside, but no specific behavior changes are noted	11 (18%)	
	Increased physical activity indoors	9 (14.7%)	Yes, my child misses the freedom of movement. He expresses this by roller-skating in the house, setting up obstacle courses at home, doing exercises in front of the TV We go for a walk every day, he rides rollerblades and a bike, but we feel the lack of movement and training because he goes "wild" in the apartment:)  Constantly talks about how she'll socialize with
	Mood changes	8 (13.1%)	friends. Doesn't leave my side, constantly demands my attention. She's always been very attached to me, but in the past month, she doesn't even want to watch cartoons without me.
	Acute emotional reactions	6 (10.2%)	Yes. He's dissatisfied. Wants to get a bit away from the residence, ride toy cars in the city. Being indoors made him nervous, he's sad because he can't see his friends.
	Increased consumption of online content	5 (8.2%)	Watches TV, cartoons, non-stop. Spends too much time on the computer.

No recognized change in behavior 28 (32.1%)	Later bedtime	4 (6.5%)	Has more energy and goes to bed later but understands the situation. Because there are no activities, she goes to bed much later, then she's tired and everything related to that  Often talks about which places and people she would like to visit once, as she says, corona is over.  There were no changes in her behavior related to the restriction of freedom of movement. She still doesn't miss the freedom of movement.  We are in the countryside at our weekend house, so she doesn't miss movement. Fortunately, we have a huge yard, which means the most to us during this time, and I think that's why she hasn't had a specific fear related to this whole situation.
	Making plans for the future	2 (3.3%)	
	No changes	20 (50%)	
	No changes because they have a yard	8 (20%)	

Reviewing the parents' responses, 67.8% of them noticed behavior changes they attributed to the mobility restrictions. Parents reported mood changes, such as nervousness when the curfew started, clinging to parents, hyperactivity, tearfulness, and sleep problems. They observed acute emotional reactions related to movement restrictions, such as dissatisfaction, nervousness, and in one case, self-harm. Parents also noted an increase in asking questions and finding ways to stay outside longer. The most common questions were about the end of the state of emergency, when school or preschool would start, and when they could play outside. Parents reported that children compensated for the lack of outdoor physical activity by engaging in such activities indoors. This included rollerblading, creating obstacle courses, frequent exercising, or generally increased physical activity. Additionally, some parents mentioned that children went to bed later because they did not get tired enough after being indoors all day. Parents also highlighted increased online communication among children, watching TV, spending time on phones, social media, and playing games. Some parents noticed that children made plans for what they would do and where they would go once the pandemic was over.

Regarding parents who did not notice behavior changes linked to movement restrictions, they attributed the lack of changes to their children being occupied with daily engaging activities, regularly attending remote classes, and doing homework. Some mentioned that while they noticed their children missed certain social aspects, such as school or interacting with friends, they did not show intense behavior changes. From the perspective of this group of parents, most children showed an understanding of the situation and adapted to the new circumstances, while daily walks and household activities helped most maintain their usual behavior. Additionally, in families with a yard, parents believed that the opportunity for children to be outside prevented new reactions related to the movement restriction measures.

### DISCUSSION

The aim of this study was to identify children's reactions to the COVID-19 virus and the implemented measures to curb the pandemic from the perspective of parents. Relying on the acute situation and the naturalistic framework of the research, descriptions of behaviors were collected during the period of acute crisis, enhancing the ecological validity of the data (Dong et al., 2020; Fioretti et al., 2020; Nikitović et al., 2023; Rossi et al., 2020; Samji et al., 2022). Conducting the research during the state of emergency reduced biases in parents' responses arising from retrospective reporting, as parents reported changes in behaviors they observed at that moment (Bornstein et al., 2020; Schwarz, 2007). The results of the content analysis helped us better understand to what extent parents perceive changes in their children's behavior and how they describe these behaviors. In samples of parents surveyed in Italy and Spain, it was shown that about 85% of them noticed emotional and behavioral changes in their children caused by quarantine (Orgilés et al., 2020). In Serbia, the findings are not consistent for every question, so data obtained regarding the first question about observed children's fear of the corona virus indicate that less than half of the respondents noticed fear in their children. Due to previous similar traumatic experiences that the generation of parents who participated in the study remember from the 1990s in Serbia, it is possible that fear generally manifested less in Serbian households. However, it is also possible that parents did not recognize the fear to the same extent as parents in Italy could. Through various responses, it can be observed that parents actually report some changes in their children's emotional reactions (e.g., anger, nervousness) but do not interpret them as behavioral changes. Finally, further studies are needed to validate these interpretations.

The most frequently mentioned fear was related to going outside to avoid getting infected. This finding is consistent with the results of similar studies conducted in other countries (Abdulah et al., 2021; Brooks et al., 2020). In addition, parents observed that their children were concerned about their loved ones getting infected, particularly worrying about their grandparents. In numerous previous studies, children reported fear of their loved ones getting infected, which was more present in younger children (Jiao et al., 2020). In a few cases, parents noticed a fear of the police in their children. This finding has not been observed in other studies. One possible explanation for this finding could be found in the cultural context and specifics of child-rearing practices in Serbia. Clinical practice has shown that, in order to discourage unwanted behaviors, parents often scare children with police

intervention—threatening that the police will take them away or imprison them. It is possible that in some children, frequent use of such narratives induced fear of the police. It can be assumed that today's parents also use this strategy, as it has been shown that parenting patterns are transmitted trans-generationally (e.g., Belsky et al., 2009). Children exhibited a need for frequent questioning about the origin of the virus, when everything will end, and when they will return to their daily activities. This behavior was noticed by parents who reported the presence of fear in their children as well as by those who stated that their children were not afraid. Interestingly, in the first group of parents, frequent questioning was interpreted as a manifestation of anxiety and a strategy for children to calm themselves, while in the second group, questioning was interpreted as a sign of curiosity and a desire for information. Effective communication in unknown and uncertain situations can be a protective factor for mental well-being. However, this is not an easy task for parents, as they also lack sufficient information and, like children, face the crisis (Radanović et al., 2021b). Some parents recognized their practices as the cause of their children's fears, believing that their children were not afraid because they, the parents, did not show fear themselves. Research during previous crises as well as during the COVID-19 pandemic has shown that fears can be transmitted from parents to children both indirectly and directly (Radanović et al., 2021a). It has been shown that the quality of parenting practices is an important predictor of positive adaptation of children to the changes brought about by the pandemic (Romero et al., 2020). Some parents observed the emergence of new behaviors in their children that were not present before the pandemic, such as seeking more intense and continuous physical contact with parents, purposeless handwashing, and the appearance of short-term involuntary movements resembling tics. Our findings are consistent with other studies conducted during states of emergency in other countries, where both younger and older children demanded to be close to their parents (Viner et al., 2020), showed signs of distress, increased need for attention, non-compliance or, conversely, excessive insistence on hygiene measures. The appearance of involuntary tics in children may indicate that the general state of fear and uncertainty during the pandemic induced changes in some children to the level of clinical symptoms (Jiao et al., 2020; Lee, 2020; Liu et al., 2020; Pisano et al., 2020; Sprang & Silman, 2013). In such situations, it is very important to recognize the symptoms and seek help from mental health professionals if these symptoms persist.

When it comes to behavior changes associated with social distancing measures and restrictions on going outside, about two-thirds of parents reported their presence. Given that children were exposed to previously unknown practices, such as physical distancing from others and restricted outdoor activities, it is not surprising that they had a frequent need to inquire about them. The most frequently observed behavior changes related to emotional reactions such as nervousness, intensified anger and sadness, anxiety, and similar reactions, which aligns with findings indicating that

every third or fourth child in isolation during the COVID-19 pandemic faced feelings of depression and anxiety, as well as various forms of irritability, such as increased crying (Chakraborty et al., 2021). For children, maintaining routines such as bedtime is extremely important (Bridley & Jordan, 2012). Parents noted that one of the most prevalent changes was that children altered their usual bedtime and daily activities. In this regard, parental flexibility to support children in changing routines and developing new behavior patterns in response to unusual circumstances was crucial for preserving children's mental health (Fiese et al., 2002). School schedules that children adhere to are important coping mechanisms for various problems (Chakraborty et al., 2021). However, the closure of schools deprived them of this role, at least temporarily, until the online schooling system was more successfully established. This increased occurrence of emotional symptoms can partly be attributed to the lack of peer group support and the absence of usual educational and extracurricular activities in which children are involved. These findings remind us that the role of the school is not focused only on acquiring knowledge and cognitive skills but also on the development of emotional abilities, socialization, and the cultivation of interpersonal relationships. The fulfillment of these additional needs that the school provides was hindered during the state of emergency, so these results are not surprising.

In some countries, the most common difficulty for children was the inability to go outside and the reduced frequency of socializing with peers (Saurabh & Ranjan, 2020), which is also evident in our study. These changes related to maintaining relationships are reflected in increased screen time. Although this study did not measure screen time directly, it was highlighted through parents' responses that it increased. Previous authors warn of the rise in hours spent online and the longterm harmful effects this has on children's development and mental health (Abdoli et al., 2024; Chakraborty et al., 2021). A significant portion of parents who reported no changes in their children believed that the normalization of the situation was contributed to by the intensified building of relationships with family members with whom the child spends time, primarily the improvement of relationships between siblings within the family. This finding strongly aligns with studies that recognized the presence of siblings as a protective factor in the development of various mental disorders, especially during the pandemic (Panda et al., 2020).

### LIMITATIONS, IMPLICATIONS, AND CONCLUSION

This study focused on parents' perceptions of changes in their children's emotional and behavioral aspects caused by quarantine measures and the COVID-19 pandemic in general. Many studies have shown the adverse effects of the pandemic on children's psychological well-being, and it seems that quarantine measures further exacerbated this picture. Through qualitative analysis, various changes in children observed by parents during the state of emergency were identified, providing important information about children's functioning in such a specific context. The main changes parents noticed in their children relate to emotional aspects (intensified negative emotions), communication (changes in communication methods, increased communication through frequent questioning), and behavior (altered rituals, emergence of new behaviors). However, it is important to mention limitations that may be significant for interpreting the study's results. Considering the methodological framework of the study, there is a question of how successfully changes in children's inner world were identified, assuming that parents, who were also scared (Radanović et al., 2021a), had reduced parental capacities, which could have affected the way they recognized such changes. Additionally, the sample of this study is limited, both in number and in the way participants were recruited—the sample consisted of parents who were present on social media and received the invitation to participate. Nonetheless, the significance of this research lies in the ecological validity of the collected data, as parents reported on children's behaviors during the crisis itself. Based on these responses, we can offer some general guidelines for working with children in such specific socio-family circumstances as those created by the pandemic. Finally, the practical implications can apply not only to children's functioning in health crisis situations but also in crises involving disasters and other unforeseen events that can affect children's mental health. The practical implications of this research concern not only family practices but also the practices of other actors who can contribute to children's well-being during a crisis, from the educational system to the media. First and foremost, communication with children needs to be conducted in a language they can understand. It is important to affirm children's feelings and reactions and provide them with adequate "emotional scaffolding" (Panda et al., 2021). Children should be exposed to accurate and verified information communicated to them in an age-appropriate manner, and questions consistently answered that serve to reduce uncertainty. It is crucial to communicate with children using a supportive narrative. Threatening narratives heard in the media or read in tabloid newspapers during the pandemic can further intensify children's fears during and beyond the crisis – police are there to protect us, not to take us away. It is necessary to maintain old routines or develop new ones, especially those related to the school context (effective learning, networking through portals, etc.). In such situations, schools and teachers must be involved in activities aimed at improving children's psychological functioning, as a system that continuously monitors children's development regardless of external circumstances. Future studies and practices should primarily focus on empowering parents to develop flexible parenting practices in crisis, unusual situations to help children process emotions and adapt to new, daily routines in the "new normal" situation, as this period was commonly characterized in the public space.

### REFERENCES

- Abdoli, M., Khoshqoftar, M., Jadidi, H., Daniali, S. S., & Kelishadi, R. (2024). Screen time and child behavioral disorders during COVID-19 Pandemic: A systematic review, International Journal of Preventive Medicine, 15(9). DOI: 10.4103/ijpvm.ijpvm 78 23
- Abdulah, D. M., Abdulla, B. M. O., & Liamputtong, P. (2021). Psychological response of children to home confinement during COVID-19: A qualitative arts-based research. International Journal of Social Psychiatry, 67(6), 761-769. DOI: 10.1177/0020764020972439
- $\Omega$ Belsky, J., Conger, R., & Capaldi, D. M. (2009). The intergenerational transmission of parenting: Introduction to the special section. Developmental Psychology, 45(5), 1201. DOI: 10.1037/a0016245
- Ш Moreno-Serra, R., Anaya-Montes, M., León-Giraldo, S. & Bernal, O. (2022). Addressing recall bias in (post-) conflict data collection and analysis: Lessons from a large-scale health survey in Colombia. Conflict and Health, 16(1), 14. DOI: 10.1186/s13031-022-00446-0
- Bornstein, M. H., Putnick, D. L., Costlow, K. M., & Suwalsky, J. T. D. (2020). Retrospective report revisited: Long-term recall in European American mothers moderated by developmental domain, child age, person, and metric of agreement. Applied Developmental Science, 24(3), 242-262. DOI: 10.1080/10888691.2018.1462090
- $\Omega$ Braun, V., & Clarke, V. (2021). Can I use TA? Should I use TA? Should I not use TA? Comparing reflexive thematic analysis and other pattern-based qualitative analytic approaches. Counselling and Psychotherapy Research, 21(1), 37-47. DOI: 10.1002/capr.12360
- $\square$ Bridley, A., & Jordan, S. S. (2012). Child routines moderate daily hassles and children's psychological adjustment. Children's Health Care, 41(2), 129-144. DOI: 10.1080/02739615.2012.657040
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of guarantine and how to reduce it: A rapid review of the evidence. The Lancet, 395(10227), 912-920, DOI: 10.1016/S0140-6736(20)30460-8
- Brown, S. M., Doom, J. R., Lechuga-Peña, S., Watamura, S. E., & Koppels, T. (2020). Stress and parenting during the global COVID-19 pandemic. Child Abuse & Neglect, 110, 104699. DOI: 10.1016/j. chiabu.2020.104699
- Chakraborty, K., Chatterjee, M., Bhattacharyya, R., & Neogi, R. (2021). Psychological impact of 'lockdown' on behaviour of children during COVID-19 pandemic: An online survey. Journal of Indian Association for Child and Adolescent Mental Health, 17(2), 72-86. DOI: 10.1177/0973134220210205
- Dong, L., & Bouey, J. (2020). Public mental health crisis during the COVID-19 pandemic, China. Emerging Infectious Diseases, 26(7), 1616-1618. DOI: 10.3201/eid2607.202407
- Fiese, B. H., Tomcho, T. J., Douglas, M., Josephs, K., Poltrock, S., & Baker, T. (2002). A review of 50 years of research on naturally occurring family routines and rituals: Cause for celebration? Journal of Family Psychology, 16(4), 381-390. DOI: 10.1037/0893-3200.16.4.381
- $\square$ Fioretti, C., Palladino, B. E., Nocentini, A., & Menesini, E. (2020). Positive and negative experiences of living in the COVID-19 pandemic: Analysis of Italian adolescents' narratives. Frontiers in Psychology, 11, 599531. DOI: 10.3389/fpsyg.2020.599531
- Jiao, W. Y., Wang, L. N., Liu, J., Fang, S. F., Jiao, F. Y., Pettoello-Mantovani, M., & Somekh, E. (2020). Behavioral and emotional disorders in children during the COVID-19 epidemic. The Journal of Pediatrics, 221, 264-266. DOI: 10.1016/j.jpeds.2020.03.013
- Lee, J. (2020). Mental health effects of school closures during COVID-19. The Lancet Child & Adolescent Health, 4(6), 421. DOI: 10.1016/S2352-4642(20)30109-7
- Leiner, D. J. (2020). SoSci Survey (Program Version 3.2.06) [Computer software].  $\square$

- Liu, J. J., Bao, Y., Huang, X., & Shi, J. (2020). Mental health considerations for children guarantined because of COVID-19. The Lancet. Child and Adolescent Health, 4(5), 347-349. DOI: 10.1016/S2352-4642(20)30096-1
- Nikitović, T., Vuletić, T., Ignjatović, N., Ninković, M., Grujić, K., Krnjajić, Z., & Krstić, K. (2023). Crisis as opportunity, risk, or turmoil: Qualitative study of youth narratives about the COVID-19 pandemic, Journal of Adolescent Health, 73, 686-692. DOI: 10.1016/j.jadohealth.2023.05.017
- $\square$ Ollendick, T. H. (1983). Reliability and validity of the revised fear survey schedule for children (FSSC-R). Behaviour Research Theraphy, 21, 685-692. DOI: 10.1016/0005-7967(83)90087-6
- Orgilés, M., Morales, A., Delvecchio, E., Mazzeschi, C., & Espada, J. P. (2020). Immediate psychological effects of the COVID-19 guarantine in youth from Italy and Spain. Frontiers in Psychology, 11, 579038. DOI: 10.3389/fpsyg.2020.579038
- Ш Panda, P. K., Gupta, J., Chowdhury, S. R., Kumar, R., Meena, A. K., Madaan, P., ... & Gulati, S. (2021). Psychological and behavioral impact of lockdown and guarantine measures for COVID-19 pandemic on children, adolescents and caregivers: A systematic review and meta-analysis. Journal of Tropical Pediatrics, 67(1), fmaa122. DOI: 10.1093/tropej/fmaa122
- ш Pfefferbaum, B. (2021). Challenges for child mental health raised by school closure and home confinement during the COVID-19 pandemic. Current Psychiatry Reports, 23(10), 65. DOI: 10.1007/s11920-021-01279-z
- Pisano, L., Galimi, D., & 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. DOI: 10.31234/ osf.io/stwbn
- $\square$ Radanović, A., Micić, I., Pavlović, S., & Krstić, K. (2021a). Don't think that kids aren't noticing: Indirect pathways to children's fear of COVID-19. Frontiers in Psychology, 12, 635952. DOI: 10.3389/ fpsyq.2021.635952
- Radanović, A., Micić, I., Pavlović, S., & Krstić, K. (2021b). Pandemic parenting: Predictors of quality of parental pandemic practices during COVID-19 lockdown in Serbia. Psihologija, 5(3), 323-345. DOI: 10.2298/PSI200731040R
- Romero, E., López-Romero, L., Domínguez-Álvarez, B., Villar, P., & Gómez-Fraguela, J. A. (2020). Testing the effects of COVID-19 confinement in Spanish children: The role of parents' distress, emotional problems and specific parenting. International Journal of Environmental Research and Public Health, 17(19), 6975. DOI: 10.3390/ijerph17196975
- Rossi, R., Socci, V., Talevi, D., Mensi, S., Niolu, C., Pacitti, F., Di Marco, A., Rossi, A., Siracusano, A., & Di Lorenzo, G. (2020). COVID-19 pandemic and lockdown measures impact on mental health among the general population in Italy. Frontiers in Psychiatry, 11, 790. DOI: 10.3389/fpsyt.2020.00790
- Samji, H., Wu, J., Ladak, A., Vossen, C., Stewart, E., Dove, N., Long, D., & Snell, G. (2022). Child and Adolescent Mental Health Review: Mental health impacts of the COVID-19 pandemic on children and youth - A systematic review. Child and Adolescent Mental Health, 27(2), 173-189. DOI: 10.1111/camh.12501
- $\mathbf{m}$ Saurabh, K., & Ranjan, S. (2020). Compliance and psychological impact of quarantine in children and adolescents due to the Covid-19 pandemic. The Indian Journal of Pediatrics, 87(7), 532-536. DOI: 10.1007/s12098-020-03347-3
- Schwarz, N. (2007). Retrospective and concurrent self-reports: The rationale for real-time data capture. In A. Stone, S. S. Shiffman, A. Atienza, & L. Nebeling (Eds.), The science of real-time data capture: Self-reports in health research (pp. 11–26). Oxford University Press.
- Sprang, G., & Silman, M. (2013). Posttraumatic stress disorder in parents and youth after health-related disasters. Disaster medicine and public health preparedness, 7(1), 105-110. https://doi.org/10.1017/ dmp.2013.22

- Viner, R. M., Russell, S. J., Croker, H., Packer, J., Ward, J., Stansfield, C., ... & Booy, R. (2020). School closure and management practices during coronavirus outbreaks including COVID-19: A rapid systematic review. The Lancet Child & Adolescent Health, 4(5), 397-404. DOI: 10.1016/S2352-4642(20)30095-X
- Xiang, Y. T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Ng, C. H. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. The Lancet Psychiatry, 7(3), 228-229. DOI: 10.1016/S2215-0366(20)30046-8
- Received 30.04.2024; accepted for publishing 20.05.2024.