

# Socioeconomic status, parenting stress and parenting practices during the covid-19 lockdown in Serbia<sup>1</sup>

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The lockdown in Serbia imposed major challenges for parents to take on a 24/7 shift in caretaking, educating, and entertaining their children, while managing to complete the demands of their professional roles and everyday household functioning, along with the constant fear of the virus spreading and potential job loss. This study examines parenting practices (enriching activities, harsh parenting, daily structure, screen time and perception of the increase in screen time) during the COVID-19 lockdown in relation to the perceived parenting stress, parents' socioeconomic status and their working conditions (i.e., without work obligation, working online, working from the workplace). The sample consisted of 1510 mothers of preschool children. Four socioeconomic clusters were identified using the relevant variables (education level, economic status and impact of the pandemic on the financial situation). The results showed that highly educated mothers who worked remotely during the lockdown experienced significantly higher stress of balancing working and parenting than other parents. Mothers who did not work during the pandemic spent more time in enriching activities ( $p < 0.01$ ) and maintained the daily structure better ( $p < 0.01$ ), while mothers who worked remotely perceived a larger effect of the pandemic impact on screen time. The results indicate that, in times of crisis, it is

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necessary to design the support for the parents of early-aged children corresponding to their specific financial and educational background.

**Keywords:** COVID-19, parenting practices, parenting stress, early childhood development

## Introduction

Following the World Health Organization's announcement of the state of a global COVID-19 pandemic, the government of Serbia declared a state of emergency on 15 March 2020, and took pandemic measures, cancelling all public events, closing all shopping malls and shops except those selling essential goods, and switching education of all levels to an online format. As far as preschool education was concerned, teachers received the instruction to stay in touch with the families by sending examples of the learning activities that parents could engage their children in. The living conditions of families with early-aged children had thus dramatically changed. Parents were left on their own to juggle home-schooling and childcare with their professional roles and managing everyday family functioning under the lockdown circumstances, as babysitters and grandparents were not available due to mobility restrictions. Further, the loss of contact with family members, friends and other close figures certainly imposed another burden on parents and their children. We assume that during this period every additional stress (related to financial or work demands) may have been an obstacle to successful parenting.

Various family factors, including the family SES and parental working conditions, parental mental health or stress, parental practices, etc., play a fundamental part in children's upbringing and development (Chong, Teo & Shorey, 2023; De Craemer, et al., 2018; Findley et al., 2022; Jago et al., 2015; Sallis, Owen & Fisher, 2008; Stienwandt, et al., 2022; Wiltshire et al., 2021). A number of studies showed that those aspects of home and family environment shaped and created children's opportunities for different types of behaviour, including the opportunities for developmentally stimulating activities or children's screen time (Määttä, Kaukonen, & Vepsäläinen, 2017). In the types of crisis such as the one caused by the pandemic, when children turn to their family and home environment, the effects of these home and family influences will be more prominent.

### *Effects of the lockdown on parents' mental health*

The restrictions associated with the lockdown measures prevented social contact and contributed to higher mental health impairments at the individual level (Benke et al., 2020), as well as at the family level. Thus, the lockdown caused different disruptions in relationships with a partner (Goodwin et al.,

2020), the co-parenting relationship (Antunes et al., 2021), and the parent-child relationship (McRae et al., 2021). Although for some parents this period represented an opportunity for bonding and enjoying activities with their children (Andrew et al., 2020; Gambin, et al., 2020; Yıldırım, 2021), relevant studies report a significant elevation in the pandemic-related stress, anxiety and depression in this population (Deeb et al., 2022). The higher involvement in childcare, remote work and chronic stress may have implied too much investment for some parents (Andrew et al., 2020). Research shows that parents reported more difficulties and more frequent burnout during the lockdown than individuals without children (Alonzo et al., 2021; Günther-Bel et al., 2020). Mental health difficulties were associated with different factors. Some research provides evidence that, during the COVID-19 pandemic, the parenting stress was more significantly elevated in mothers than in fathers (Giannotti et al., 2022), which could be due to the fact that mothers spent more time with children (Andrew et al., 2020). Changes in child's everyday activities played a significant role. The absence of outdoor activities (such as sports, social activities, school and preschool) led to higher odds of parents' mental health difficulties (Deeb et al., 2022).

Research suggests that parents' employment status also played a significant role in determining mental health outcomes. There was a deterioration of mental health in working parents, which was associated with increased financial insecurity and time spent on childcare and homeschooling (Zhang et al., 2022). Also, parents who worked from home reported greater difficulties, due to the challenges in balancing their parental and professional roles (Antunes et al., 2021; Chung et al., 2020). Research conducted on the Serbian sample suggests that the parents who worked remotely reported significantly more challenges regarding the everyday functioning of the family than the parents who continued to go to work (Videnović et al., 2021).

Studies from Serbia also report that the parents of preschool-aged children experienced a wide spectrum of challenges related to everyday functioning: juggling work and child care, and providing learning opportunities for their children, but also the challenges related to the uncertainty of the situation and fear for their health and health of the members of their family and regarding the financial and social situation (Videnović et al., 2021). Research conducted in other countries also revealed similar problematic issues (Fontanesi et al., 2020; Scrimin et al., 2022). This perception of challenges associated with the pandemic and lockdown tended to increase the level of parenting stress (Spinelli et al., 2020). Parenting stress, as a separate form of stress, related to the perception of demands in the caregiving role and available resources (Abidin, 1992), was a significant predictor of the parent-child relationship, quality of care and, consequently, child's developmental outcomes (Crnic et al., 2005; Deater-Deckard, 1998; Deater-Deckard & Scarr, 1996; Mitchell

& Hauser-Cram, 2010; Tripp et al., 2007). In some cases, the difficulties experienced by parents were associated with the child's less favourable developmental outcomes, such as internalizing and externalizing behaviour and different emotional difficulties (Gadassi Polack et al., 2021; Giannotti et al., 2020; van den Heuvel et al., 2022; Skinner et al., 2021; Spinelli et al., 2020; Whittle et al., 2020).

### *Changes in the family functioning and parenting practices during the COVID-19 lockdown*

While some studies show that families enjoyed the time together at home and had plenty of developmentally enriching activities for the children (Andrew et al., 2020), others provide evidence for the opposite. The pandemic affected various aspects of parenting practices and care quality during the lockdown. For example, Spinelli et al. (2020) showed that parents who experienced higher levels of stress spent less time with their children and were less engaged in the activities with their children, less available and less interested in the child's emotional state. Furthermore, Eales et al. (2021) showed that the lockdown conditions changed the family routines and rules, as well as that the limitations in social life were replaced by increased media and technology use. This is consistent with the findings of other studies reporting a dramatic increase in screen time among children (Bergmann et al., 2021; Bulow et al., 2021; Dodd et al., 2020; Guan et al., 2020; Eyimaya & Irmak, 2020; Schmidt et al., 2020), well-known as a detrimental factor for early-aged child development (Madigan et al., 2019; McArthur et al., 2022; Zhang et al., 2022).

When it comes to routines and daily structure, studies point out that, during the lockdown period, more children had irregular meal times and a higher percentage of snack intake (Jansen et al., 2021; Titis, 2022). Similar findings reported negative effects in terms of an increase of chaos at the family level, which was associated with the parents' perception of the relationship with the child as being more stressful and less enjoyable (Spinelli et al., 2020). Higher chaos and lack of everyday organization were also associated with increases in relationship conflicts and a decrease in closeness and intimacy between parents and children (Cassinat et al., 2021). Living in an unorganized and unstable environment was documented to be a predictor of a lower quality of the parent-child relationships and shared time (Mikolajczak et al., 2018). Parenting practices regarding discipline undoubtedly changed, and there is evidence for an increase in harsh discipline practices, emotional unavailability, inconsistent parenting and neglect (Connell & Strambler, 2021; Griffith et al., 2022; van den Heuvel et al., 2022; Wu & Xu, 2020).

*The role of socioeconomic status in the parenting practices during the COVID-19 lockdown*

Socioeconomic status (SES) is well documented as one of the strongest predictors of family functioning and child development. SES can achieve its effect on the child's development directly – through the availability of learning and stimulating materials (Bradley & Corwyn, 2002; Evans, 2004; Gershoff et al., 2007; Linver et al., 2002; Yeung et al., 2002), or indirectly, through the relationships' quality and parenting practices (care quality), since there is evidence that low-income parents tend to be less responsive and engage children in learning activities less frequently (Foster et al., 2005; Hayes et al., 2018; Kelly et al., 2011). The family stress model is a theoretical model that explains the path through which SES achieves its effects on the child's development (the *Family stress model*, Conger et al., 2000; Conger & Conger, 2002; Conger et al., 2010). This model presumes that economic hardship affects child maladjustment by jeopardizing parents' mental health, co-parenting relationship conflicts and disrupted parenting practices (Masarik & Conger, 2017). Economic hardship leads to lower capacities of parents to provide warmth, consistency and stimulative care for their children and increases neglective, harsh or inconsistent parenting, which consequently leads to poorer developmental outcomes (Conger et al., 2010).

As can be concluded from the previous section, the lockdown living conditions may be a stressful experience by itself and can increase the perception of a lack of parenting resources. Parents were expected to provide care and enriching activities for their children 24/7 while managing all the other everyday demands and dealing with the fear of illness and losing their job in an uncertain situation, without a clear idea of how long it would last and what effect it would bring. All of this could have potentially been exacerbated by the disadvantaged socioeconomic position (Van Lancker & Parolin, 2020). Due to the COVID-19 pandemic, many people lost their jobs or experienced a severe reduction in their income. Stress and financial hardship were higher compared to the period before the crisis (Jansen et al., 2021). In accordance, the studies dealing with parenting during the COVID-19 pandemic evidenced a higher presence of less favourable parenting practices in low-socioeconomic status families (Scrimin et al., 2022; Spinelli et al., 2020; Trevino et al., 2021).

Much less is still known about the effects of the pandemic on parenting practices in Serbia and the role of socioeconomic status as a risk factor than it is known about the early childhood development outcomes determinants generally. The first aim of this study is hence to investigate the level of the perceived parenting stress and explore the parenting practices during this period which can represent the components of care quality: the provision of enriching activities, the remaining structure and family routines, screen time

and discipline practices during the lockdown. The second aim of the study is to investigate the effects of the socioeconomic status and working conditions on the parenting practices and stress.

## METHOD

### *Participants*

The total sample consisted of 1510 mothers<sup>3</sup> of children attending kindergarten or/and a preschool institution in Serbia. Most of the participants in the sample lived in urban areas. Half of the families in the sample had two children, around one third had one child and the remaining part of the sample were mothers of three or more children. The education level in this sample was relatively high. More than one half of the participants had faculty or higher education, while one third of the sample had secondary education. A detailed structure of the sample is presented in Table 1.

Table 1  
*Sample structure*

		Percentage of mothers
Place of living	Urban	82.4
	Rural	17.6
Number of children	One child	30.9
	Two children	53.7
	Three or more children	15.7
Mother's education	Primary school	0.7
	Secondary school	30.3
	Faculty or Bachelor's degree	50.8
	Master's degree	16.4
	PhD	1.9

### *Instruments*

For the purpose of this study, the authors developed the questionnaire which started with several sociodemographic questions (the parent gender, child age, place of living, number of children in the household).

*Family socioeconomic status during the pandemic* was assessed via several questions. Firstly, parents reported on their education level (from complete primary school to PhD) and the perceived economic status related to the other members of the population in Serbia (on a scale from 1 to 10). Besides

<sup>3</sup> In the collected sample, less than 8% participants were fathers, so they were excluded from further analyses.

this general information, they assessed the changes in the economic status due to the pandemic: whether their financial status had significantly changed (on a scale from 1 to 5) and whether any member of the household had lost their job. Also, parents reported on *the working conditions during the lockdown* (did not work, worked remotely or went to work).

*Parenting stress during the lockdown* was measured using three items: *How stressful was it for you to be a parent during the lockdown? How stressful was it for you to balance work with parenting? How stressful was it for you to organize everyday family life?* Parents' task was to assess the degree to which they found the stated aspects stressful during the lockdown, on a Likert scale from 1 to 5.

The term "parenting practices during the pandemic" was used as an umbrella term for the following: the engagement in home-based learning activities, providing daily structure for the child, screen time and disciplining practices. Those aspects were chosen relying on the Nurturing care framework, which is a dominant contemporary framework for understanding the components of care quality and early childhood development (WHO, 2018).

*Engagement in home-based learning activities* was assessed on a scale consisting of 12 items describing different activities that parents may have engaged in with their children. The items were created to describe the activities that can occur every day, in home setting, without the need of any special materials and were considered to be developmentally stimulating (examples: reading a book, singing, playing board games etc.). Parents' task was to report how often these activities occurred (on a Likert scale from 1 – never to 4 – almost every day). The total score was calculated as a sum of all items, where a higher score represented a higher occurrence of the activities. The scale showed good reliability (Cronbach Alpha .836).

*Providing daily structure* was assessed on a scale consisting of 6 items describing the parenting practices that provided routine and structure to everyday activities and, consequently, provided predictability in the organization of the child's life during the lockdown. Parents' task was to assess the level of agreement with the stated items that described maintaining the daily structure during the lockdown on a Likert scale from 1 to 5 (for example: *We didn't ignore the activities that the child participated in before the pandemic*; or *The child participated in household chores together with us*). The total score on the dimensions of the scale was calculated as a sum of the scores of items, where a higher score represented a higher occurrence of the described practices. The scale showed good reliability (Cronbach Alpha .77).

*Impact of the pandemic on Screen time* was measured using one item (*How much time did your child spend in front of the screen (phone, tablet, computer, TV) relative to the period before the pandemic?*). On a scale from 1 (significantly less) to 5 (significantly more), the participants assessed the extent to which the period of time spent in front of the screen changed.

*Harsh parenting* was measured with a 6-item scale describing harsh disciplining practices, including different kinds of corporal punishment, criticism, and yelling. Participants' task was to assess the frequency in which these practices occurred during the lockdown on a scale from 1 (never) to 4 (every day or almost every day). The total score was calculated as a sum of scores on all items, where a higher score represented higher occurrence of harsh parenting practices. The scale showed good reliability (Cronbach Alpha .704).

### *Procedure*

The questionnaire was administered in an online form, using Google Forms. It was distributed several days after the lockdown had been over. In that sense, this represents a retrospective study on the parental perspective of the lockdown period. The questionnaire was distributed using the social network Facebook, by sharing the questionnaire on the personal profiles of researchers and in Facebook groups that gather the parents of young children attending preschool institutions. The questionnaire was available for 7 days, from 8 to 15 May 2020. The participants were informed about the purpose and aims of the study, and they gave their informed consent. Also, researchers' contacts were available for any further questions.

## **Results**

### *Descriptive statistics*

*Socioeconomic profiles and working conditions.* Cluster analysis was performed to identify different parents' profiles based on the socioeconomic situation (the perceived economic status, education level, perceived impact of the pandemic on the financial status and job loss during the pandemic). Wards' clustering linkage method was used, with the Euclidean distance as a measure of similarity. Four clusters were identified through an agglomeration schedule and a dendrogram. The MANOVA revealed that there was a statistically significant difference in the variables measuring a different aspect of the socioeconomic status between the four groups ( $F(12, 3977) = 419.400, p < .001$ ; Wilk's  $\Lambda = 0.115$ , partial  $\eta^2 = .51$ ). The ANOVA tests showed that group members' scores on all four variables differed significantly after the Bonferroni correction had been applied for multiple analyses being run ( $p < .001$ ).

We followed up these significant ANOVAs with the Tukey HSD test to identify groups ( $p < .01$ ). The *first cluster* consisted of mothers with the **highest perceived economic status**, and **high education level** (higher only in the 2<sup>nd</sup> cluster). Despite the favourable economic situation, these mothers perceived that the pandemic had a **high negative impact** on their financial situation (only members of group number 4 had a higher score) and 21% of them



had lost their jobs or income during the pandemic. The participants in *the second cluster* had the **highest education level. They obtained at least a university degree.** The members of this group assessed their economic status as lower than those from the 1<sup>st</sup> cluster. The mothers from this group had **the most stable economic situation** during the pandemic. Here, the pandemic had the lowest effect, and only one participant (0.2%) had lost their job or income during it. *The third cluster* consisted of the mothers with **the lowest educational level.** Most of them (62%) completed only secondary education. They perceived their economic status as lower than in the previous group, but higher than in the last group. The negative impact of the pandemic on their financial situation was higher compared to the second group, but, still, most of them did not lose their jobs or incomes (94%). The members of the last cluster *had the most unfavourable perceived economic status* (the average score of around 4 from 10). The pandemic had a lot of influence and made their economic situation even worse (the perceived negative impact was larger only in the 1<sup>st</sup> group), and **30% of the participants had lost their job and/or incomes.** The mothers' **education level** was higher than in the 3<sup>rd</sup> group but **lower than in the first two groups.**

During the lockdown, mothers faced one of three working conditions: did not work, worked remotely from home or worked from the workplace (Table 2). There is an interaction between these working conditions and the extracted clusters ( $\chi^2(12, N = 1510) = 201.852, p < 0.001$ ). Most mothers from cluster 2 (48%) worked remotely. One-third (26%) did not have work obligations. On the other hand, most mothers that were members of other clusters did not work during the lockdown (54.8% to 61.4%). Mothers from cluster 3 went to their workplace more often (20%) than the mothers from other clusters (7.3% to 14.6%).

Table 2  
*Working conditions during the lockdown*

Working conditions	Frequency	Percent
Unemployed	297	19.7
Employed but did not work	464	30.7
Worked remotely from home	422	27.9
Worked occasionally from the workplace	139	9.2
Worked every day from the workplace	188	12.5
Total	1510	100.0

*Parenting practices*

*Enriching activities.* The average total score on the Engagement in home-based learning activities scale (ranging from 12 to 48) was 34.2 ( $SD=5.77$ ). Analysis of frequencies indicates that the activities that occurred on a daily

basis included reading books, telling stories, singing to the child or with the child and drawing with the child. The lowest average scores were obtained for the activities such as playing board games, teaching letters and writing lines using educational online platforms and playing role play games (Table 3).

Table 3

*Descriptive statistics for the Engagement in home-based learning activities*

Learning activities:	Mean	Std. deviation	% of "Every day"
Singing with or to the child	3.22	.69	37.0
Reading books	3.20	.69	35.1
Drawing together	3.20	.67	32.8
Telling stories	3.10	.76	31.9
Teaching something new	3.09	.71	28.4
Counting or learning numbers	3.07	.76	28.3
Playing board games	2.89	.87	24.4
Watching cartoons together	2.97	.77	24.0
Teaching letters or writing lines	2.76	.89	19.9
Playing role play	2.62	.95	17.5
Using educational online platforms	2.12	.97	8.4
Watching online theatre show	1.89	.88	3.7

\*Valid N =1646

*Daily structure.* The average score on this dimension was 3.65 ( $SD=.70$ ), which means that most mothers persisted on a structure even in a time of crisis, such as the lockdown. Still, 18.2% mothers reported that their child did not go to bed at the same time, 18% that they did not stick to a fixed schedule of activities and around a half of them that they, at least sometimes, let the child do what he/she wanted whenever he/she wanted.

*Screen time.* When it comes to screen time, around 40% of the children did not spend more than one hour in front of the TV, computer, or tablet, while other children spent between one and two hours or more (Table 4).

Table 4

*Screen time during the lockdown*

Screen time	Frequency	Percent
Not every day	247	16.4
Less than 1 hour	321	21.3
Between 1 and 2 hours	592	39.2
Between 2 and 3 hours	274	18.1
More than 3 hours	76	5.0

Mothers also answered the questions regarding the increase in screen time due to the pandemic. Approximately half of them (59%) reported that their child spent equal or less time in front of the screen (watching cartoons alone or playing games on the phone, tablet or TV) compared to the period before the lockdown. An increase in screen time was detected in 41% of the families (Table 5).

Table 5  
*Screen time during the lockdown compared to screen time before*

	Frequency	Percent
A lot less than before	163	10.8
Less than before	109	7.2
The same	621	41.1
More than before	497	32.9
A lot more than before	120	7.9

*Harsh parenting.* The most frequent disciplining practices were verbal: between 30% and 50% of mothers criticized their child or yelled at the child several times or every day during the lockdown. Corporal punishment, such as slapping the child on the bottom, occurred several times or every day in 16.6% of the families, and more severe corporal punishment, such as beating the child when he/she misbehaved, pulling the child’s ears or hair, and shaking the child to calm down, were reported by less than 2% of the mothers in the sample (Table 6).

Table 6  
*Frequency of disciplining practices during the lockdown*

	Never	Once or twice	Several times	(Almost) every day
Spanked or slapped the child	48.1	35.4	16.3	0.3
Hit or beat the child	87.9	10.2	1.8	0.1
Criticized or scolded the child	9.1	39.6	46.5	4.8
Shouted or yelled at the child	28.5	37.8	30.3	3.4
Pulled the child’s hair or ears	93.1	5.5	1.4	/
Shook the child	90.7	7.5	1.7	0.1
Praised the child	0.7	1.5	39.9	57.9
Showed you love the child	0.2	0.1	20.4	79.3

Moving forward with the aim to explore the broader patterns of the parenting practices and the quality of care during the lockdown, we analysed the correlations between the total score on the home-based learning activities, daily structure, screen time and harsh parenting practices. Although significant, Pearson’s *r* coefficients were small in effect size (Table 7). This

analysis suggests that multicollinearity between these variables should not cause a problem in further analyses.

Table 7

*Intercorrelations between different aspects of parenting practices*

	1	2	3
Enriching activities	1		
Daily structure	.333**	1	
Screen time	-.071**	-.160**	1
Harsh parenting practices	-.085**	-.097**	.172**

\*\*Correlations significant at  $p < .05$ .

*The effect of socioeconomic status on parenting practices*

The factorial ANOVA showed that the interactions between the effects of socioeconomic status profiles and working conditions were not statistically significant for all aspects of parenting practices ( $p > 0.05$ ).

A one-way ANOVA was performed to compare the effects of four categories of socioeconomic status and the effect of working conditions when considered independently. According to the Bonferroni correction for multiple testing, only the  $p$  value lower than 0.006 is considered significant. The obtained results revealed a statistically significant difference between four groups of socioeconomic status only for the impact of the pandemic on screen time ( $F(3, 1506) = 11.815, p < 0.001$ ). A Tukey post-hoc test revealed that the children whose parents were in the second group (the highest education) experienced the highest increase in screen time during the pandemic ( $p < 0.01$ ). These children's screen time increased more, but the amount of the time did not differ from the rest of the sample. All the other parenting practices did not significantly differ.

Working conditions had effects on the frequency of the enriching activities, daily structure, and pandemic impact on screen time (Table 8). The difference between the working conditions in harsh parenting and amount of screen time did not achieve statistical significance. The Tukey test showed that the parents who did not have work obligations spent more time in enriching activities during the lockdown ( $p < 0.01$ ) and maintained daily structure better ( $p < 0.01$ ). Parents who worked remotely perceived a larger effect of the pandemic impact on screen time ( $p < 0.01$ ).

**Table 8**  
*The effect of socioeconomic status on parenting practices*

		Sum of squares	df	Mean square	F	Sig.
Enriching activities	between groups	665.072	4	166.268	5.049	<.001
	within groups	49559.286	1505	32.930		
Daily structure	between groups	432.770	4	108.193	6.192	<.001
	within groups	26298.070	1505	17.474		
Harsh parenting	between groups	27.246	4	6.811	1.258	.285
	within groups	8150.397	1505	5.416		
Screen time	between groups	8.913	4	2.228	1.886	.110
	within groups	1777.874	1505	1.181		
Pandemic impact on screen time	between groups	23.488	4	5.872	5.343	<.001
	within groups	1654.112	1505	1.099		

*Parenting stress.* Average parenting stress scores were around the theoretic mean (scale from 1 to 5), with the highest score for organizing everyday family life (Table 9). Around 25% of parents reported that being a parent was stressful or very stressful, 30% struggled with balancing parenting and work, and 35% felt that organizing everyday family life was stressful to very stressful. Also, 14% of parents perceived all three domains as stressful or very stressful.

**Table 9**  
*Descriptive statistics for the domains of parenting stress*

Domains of parenting stress	Mean	Std. deviation
Being a parent	2.45	1.39
Balancing working and parenting	2.60	1.52
Organizing everyday life	2.83	1.40

As expected, the correlations between these domains of parenting stress (being a parent, balancing parenting and work and organizing everyday life) are statistically significant (Table 10). Correlations are moderate, but lower than 0.8, and it may be concluded that multicollinearity should not cause a problem for further analyses (Kennedy, 1979). The reliability coefficient was 0.81, which justifies using these three items as part of the scale. However, we will treat these items separately because they mark psychologically different obstacles that could have caused stress during the pandemic.

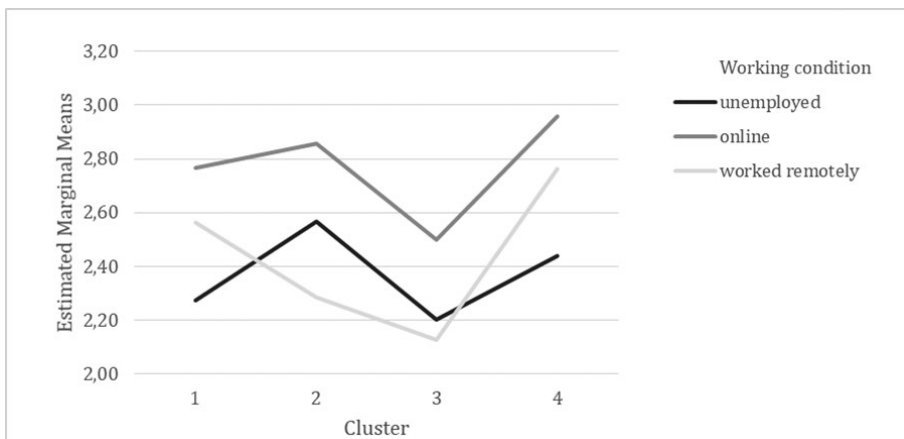
**Table 10**  
*Intercorrelations between different domains of parenting stress*

	1	2
Being a parent	1	
Balancing working and parenting	.579**	1
Organizing everyday life	.575**	.601**

### *Parenting stress, parents' socioeconomic profiles and working conditions*

Factorial ANOVA was conducted to examine the effect of socioeconomic profiles and working conditions on the parenting stress. There was a statistically significant interaction between the effects of the socioeconomic status profiles and working conditions on the perceived stress of balancing work and parenting ( $F(6, 1488) = 2,616, p = .02$ ). Plot's analysis showed that the larger difference between the two working conditions (online, workplace) occurred in the parents from cluster 2 (the parents with the highest education and stable economic situation during the pandemic). The members of this cluster who worked online reported significantly higher stress in balancing working and parenting compared to those involved in other working conditions. On the other hand, the parents with the most unfavourable economic status (cluster 4) reported the highest stress when working from the workplace. However, the difference between the two working conditions is smaller than the one present in cluster 2. Interaction effects in the other two aspects of parenting stress were not statistically significant ( $F(6, 1488) = 1.039, p = .77$  and  $F(6, 1488) = 3.39, p = .10$ ).

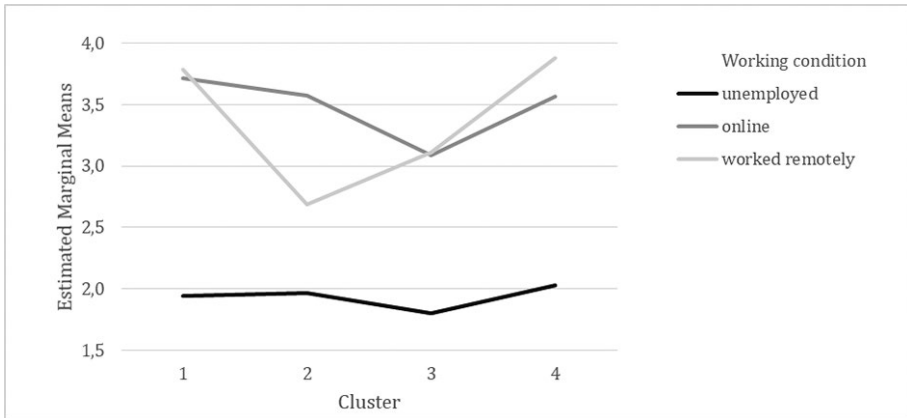
When considering separately the socioeconomic status ( $F(6, 1488) = 4,213, p < .001$ ) and working conditions ( $F(6, 1488) = 80.462, p = .016$ ), the MANOVA test showed that both had effects on the parenting stress during the lockdown. The Tukey post-hoc analysis revealed that being a parent was least stressful for the members of the 3<sup>rd</sup> cluster (parents with lower educational status) ( $p < .01$ ). At the same time, online working conditions were connected with the highest stress of being a parent ( $p < .001$ ) (Graph 1).



Graph 1

*The stress of being a parent during the lockdown*

Balancing work and parenting was more stressful for the parents with the highest education (cluster 2) than for the parents in cluster 3 (the lowest education) and cluster 4 (the most unfavourable economic status). Organizing everyday life caused the lowest stress ( $p < 0.01$ ) for the least educated parents (cluster 3). As expected, the parents who did not work found balancing work and parenting and organizing everyday life a less stressful experience when compared to other working conditions ( $p < 0.01$ ) (Graph 2).



Graph 2  
*Parental stress of balancing work and family life*

*The effect of stress on the parenting practices*

Multivariate linear regression was run to predict various aspects of parenting practices from parenting stress, operationalized through three continuous variables. Before conducting this analysis, data had been checked for multicollinearity. Independent variables did not highly correlate with each other, and hence multiple linear regression was the appropriate method. All the models were statistically significant but accounted for relatively little variance. These variables statistically significantly predicted *harsh parenting* and *the daily structure*, but only the stress of being a parent significantly added to the prediction (Table 11). Mothers who found parenting more stressful during the lockdown used discipline practices more frequently and daily structure less frequently.

The frequency of the *enriching activities* was also predicted by parenting stress; however, the effect was minor. More precisely, the stress of organizing family life predicted lower frequency of enriching activities in the child’s life (Table 11).

Table 11  
*Parenting stress as a predictor of parenting practices*

Criteria	Predictor	$\beta$	t	p	R	R <sup>2</sup>	F	df	p
Harsh parenting	Being a parent	.322**	6.115	.000	.214	.046	26.259	3	.000
	Balancing working and parenting	.007	.153	.879					
	Organizing everyday life	.042	.786	.432					
Daily structure	Being a parent	-.342**	-3.523	.000	.159	.025	14.283	3	.000
	Balancing working and parenting	-.127	-1.409	.159					
	Organizing everyday life	-.060	-.616	.538					
Enriching activities	Being a parent	-.163	-1.208	.227	.114	.013	7.264	3	.000
	Balancing working and parenting	-.099	-.790	.430					
	Organizing everyday life	-.275*	-2.026	.043					

## Discussion

During the lockdown in Serbia, the daily life of families with preschool children dramatically changed. These children could be particularly vulnerable as they are in the critical period for later development (Shonkoff et al., 2009) and their developmental outcomes are highly dependent on the interaction with the caretakers (National Scientific Council for Developing Child, 2004).

Our findings regarding the frequency and quality of different aspects of parenting practices do not suggest any dramatic impact of the lockdown (Authors, 2022; Unicef, 2020). The most frequent learning activities were reading, telling stories, singing and drawing, occurring every day in one-third of the sample. Most parents maintained daily routines during the lockdown. However, almost half of them reported an increase in child's screen time relative to the period before the pandemic. This is an important finding, which is in line with other studies (Schmidt et al., 2020; Ten Velde et al., 2021; Seguin et al., 2021). Additionally, the prevalence of harsh verbal discipline was significant.

The mean levels of the reported parenting stress were on the scale between little to moderate. This may lead to a conclusion that the pandemic did not affect parenting stress levels, at least at the beginning of the pandemic, following previous research conducted in this field (Spinelli et al., 2020; Lades et al., 2020). Research even suggests that a certain percentage of parents reported the absence of problematic issues during the lockdown, stating that being a parent was a joy in all circumstances (Videnović et al., 2021). However, there is a possibility that some participants may have felt guilty



or uncomfortable expressing any concerns related to parenting in order to avoid being judged or perceived as bad parents. Also, a more detailed analysis revealed significant variability in parents' responses. After all, around a quarter to one-third of the parents reported high levels of parenting stress in each domain. Not a negligible proportion of parents perceived the lockdown as a challenging period. Other studies have also yielded similar findings, suggesting that, during the lockdown period, parents faced a relatively wide range of challenges (Fontanesi et al., 2020; Scrimin et al., 2022; Videnović et al., 2021).

Parents' socioeconomic situation and their working obligations could have been an obstacle to successful parenting during the pandemic (Britto, Fuligni, & Brooks-Gunn, 2002; Evans, et al., 2005; Van Lancker & Parolin, 2020; Trevino et al., 2021). Transitioning to remote working could have intensified the stress of balancing parenting with working (Markowska-Manista, & Zakrzewska-Oleńska, 2020). Our results indicate that this effect was greater among the highly educated parents. This may be due to the fact that the work tasks they needed to realize were very complex, causing cognitive overload and stress more easily. Also, this working condition could have forced the parents to use "the screen as a babysitter" more often than before the pandemic. Parents without work obligations during the lockdown were at an advantage compared to the working parents, spent more time in enriching activities and maintained daily structure better. Thus, it may be argued that the parents who are *free from working obligations during the times of crisis could provide a more developmentally supportive environment for their children*. The finding that having fewer working obligations helped the parents maintain the daily routine should be taken into account for policy decisions during the acute stress periods.

Socioeconomic profiles did not have significant effects on most of the examined parenting practices. Although other studies showed that less favourable parenting practices were more frequent among the low-educated and parents with lower economic status (Van Lancker & Parolin, 2020; Spinelli et al., 2020; Scrimin et al., 2022; Trevino et al., 2021), we did not confirm that relation. This research has shown that families' socioeconomic profiles could be more complex in times of crisis than usual. For example, parents with the highest economic status experienced the severe negative financial impact of the pandemic. Despite the favourable overall economic status, parents could have experienced financial difficulties. In addition, parents with high education levels could have experienced additional stress as well, provoked by specific working conditions such as working online at an intellectually demanding job.

Overall, children's screen time did not depend on the family's economic and educational background. However, highly educated parents (the 2<sup>nd</sup> cluster) reported a more frequent increase in screen time during the pandemic. Although most studies found a negative correlation with this respect – i.e., higher parental education was associated with children's lower screen time (Chong, Teo & Shorey, 2023; Findley et al., 2022; Sallis, Owen & Fisher, 2008; Stienwandt, et al., 2022; Wiltshire et al., 2021) – there are also some studies suggesting no or positive correlation, which is in concordance with our results. One explanation for the found positive relationship between the family SES and children's screen time is offered by a study that indicated that socioeconomically advantaged parents did not follow experts' advice on children's screen time because they felt that those guidelines were unrealistic (Mollborn et al., 2022). It is possible that a similar explanation can be applied to the situation during the pandemic, but this is a hypothesis that should be tested in further research.

Finally, our results show that an increase in parenting stress could affect the changes in the parenting practice even when the stressful period is relatively short. It has been indicated that, in times of crisis, societies need policies to support the parents of early-aged children. The key components of care quality at an early age, such as enhancing child's learning and development through stimulating everyday activities, providing everyday routines and positive disciplining practices, may be protective factors for the child's well-being and development. Our research raises the importance of understanding socioeconomic status and working conditions as a complex context, which could present a potential risk for the family functioning and parenting quality.

### *Limitations*

Although this study has provided significant insights into parenting in the context of crises such as the lockdown period, it has several limitations that could be overcome in future studies. First, our participants were all mothers, and highly educated participants were overrepresented. Adding the father's perspective may enable reaching conclusions about the differences in parenting practices, stress and the effect of socioeconomic status between mothers and fathers. Additionally, the online research format was not suitable for economically struggling parents. Further, collected data are based on the parents' subjective retrospective perceptions. Included observations or/and the children's perspective could help us to get better insights into the family's dynamics in time of crisis.

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## **Socioekonomski status, roditeljski stres i roditeljske prakse za vreme vanrednog stanja tokom pandemije COVID-19 u Srbiji**

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Tokom vanrednog stanja u Srbiji roditelji su se našli pred izazovom da 24 sata, sedam dana u nedelji preuzmu brigu o čuvanju, obrazovanju i zabavi svoje dece, dok ujedno odgovaraju na poslovne zahteve i vode računa o svakodnevnom funkcionisanju domaćinstva, uz stalni strah od virusa i potencijalnog gubitka posla. Ova studija ispituje povezanost između roditeljskih praksi (učestvovanje u razvojnopodsticajnim aktivnostima, disciplinovanje, uspostavljanje strukture dana, vreme koje detet provodi ispred ekrana, roditeljska percepcija povećanja tog vremena) u odnosu na roditeljski stres, socioekonomski status roditelja i uslove u kojima su radili (tj. bez radne obaveze, rad na daljinu, rad na random mestu) tokom izolacije COVID-19. Uzorak je činilo 1510 majki dece predškolskog uzrasta. Četiri socioekonomska klastera su identifikovana korišćenjem relevantnih varijabli (nivo obrazovanja, ekonomski status i uticaj pandemije na finansijsku situaciju porodi-

ce). Rezultati su pokazali da su visokoobrazovane majke koje su radile na daljinu tokom izolacije iskusile značajno veći stres zbog usklađivanja radnih i roditeljskih obaveza. Majke koje nisu radile tokom pandemije provodile su više vremena u razvojnopolsticajnim aktivnostima ( $p < 0,01$ ) i bolje su uspostavljale strukturu dana ( $p < 0,01$ ), dok su majke koje su radile na daljinu primetile veći efekat uticaja pandemije na povećanje vremena koje dete provodi ispred ekrana. Rezultati pokazuju da je u kriznim vremenima neophodno osmisliti individualizovanu podršku roditeljima dece ranog uzrasta uzimajući u obzir njihov ekonomski i obrazovni status.

**Ključne reči:** COVID-19, roditeljske prakse, roditeljski stres, rani razvoj