

PART III. LIFE IN COVID-19 PANDEMIA

Associate Professor, Bogusława Lachowska, PhD, <https://orcid.org/0000-0002-6858-6314>
Institute of Psychology
The John Paul II Catholic University
of Lublin

The threat of coronavirus perceived by the mother and her experiences related to the pandemic versus her relationship with the child

Postrzegane przez matkę zagrożenie koronawirusem oraz jej doświadczenia związane z pandemią a relacja z dzieckiem¹

<https://doi.org/10.34766/fetr.v47i3.919>

Abstract: *Introduction:* The COVID-19 pandemic caused by the SARS-CoV-2 coronavirus, has significantly changed people's everyday lives, threatening the quality and even durability of intra-family relationships. The relationship between mother and child is particularly vulnerable to the disruptive impact of the pandemic. The article examines the relationship between mothers' perceived threat of coronavirus and their pandemic experiences, and their relationships with their children. The analyses took into account the mediating role of parental stress and the following indicators of the mother-child relationship: mother's perceived closeness with her child and mother-reported increase in the use of harsh parenting related to the pandemic. *Method:* The perceived threat of coronavirus and the pandemic experiences were assessed using scales based on the Coronavirus Experiences and Impacts Questionnaire (Conway, Woodard, & Zubrod, 2020). Parental stress was tested using the Polish version of The Parental Stress Scale (Berry & Jones, 1995), while the mother's relationship with the child was measured using the Polish version of the scales developed by Chung, Lanier, and Wong (2020). The study involved 155 mothers who are in a relationship and have at least one child up to 12 years of age. Statistical analyses were performed using SEM structural equation modeling. *Results:* It was found that during the pandemic, mothers' negative experiences related to the pandemic had a significant effect on mother-child relationships, which was associated with a greater increase in the use of harsh parenting as reported by mothers and a decrease in their perceived closeness with their children. This effect was mediated by parental stress. There was no significant correlation between the perceived threat of coronavirus and mother-child relations. *Conclusions:* The pandemic and the related difficult situations constitute a significant risk factor for child abuse and neglect in the group of mothers. This indicates the need to support mothers.

Keywords: COVID-19 pandemic; parental stress; harsh parenting; emotional closeness

Abstrakt: *Wprowadzenie:* Pandemia koronawirusa SARS-CoV-2, wywołującego chorobę COVID-19, zmieniła istotnie życie codzienne ludzi, zagrażając jakości a nawet trwałości, relacji wewnątrzrodzinnych. Na zaburzający wpływ pandemii szczególnie narażona jest relacja między matką a dzieckiem. W artykule zbadano związek między postrzeganym przez matki zagrożeniem koronawirusem oraz ich doświadczeniami związanymi z pandemią a funkcjonowaniem w relacji z

¹ Polska wersja: <https://stowarzyszeniefidesetratio.pl/Presentations0/2021-3-Lach.pdf>

dzieckiem. W analizach uwzględniono mediującą rolę stresu rodzicielskiego oraz następujące wskaźniki relacji matki z dzieckiem: postrzegana przez matki bliskość emocjonalna z dzieckiem i związany z pandemią wzrost intensywności podawanych przez matki zachowań raniących dziecko. *Metoda:* Postrzegane zagrożenie koronawirusem oraz doświadczenia związane z pandemią oceniono za pomocą skal opracowanych w oparciu o *Coronavirus Experiences and Impacts Questionnaire* (Conway, Woodard, Zubrod, 2020). Stres rodzicielski zbadano za pomocą polskojęzycznej wersji skali *The Parental Stress Scale* (Berry, Jones, 1995), pomiaru relacji matki z dzieckiem w percepcji matki dokonano za pomocą polskojęzycznej wersji skal opracowanych przez Chung, Lanier i Wong (2020). W badaniu wzięło udział 155 matek pozostających w związku i posiadających na wychowaniu co najmniej jedno dziecko w wieku od 7 do 12 lat. Analizy statystyczne przeprowadzone za pomocą modelowania równań strukturalnych SEM. *Wyniki:* Stwierdzono, iż w czasie pandemii negatywne doświadczenia matki związane z pandemią wywierają istotny efekt na relacji matki z dzieckiem, z czym wiąże się większy wzrost stosowania raportowanych przez matkę raniących zachowań rodzicielskich oraz zmniejszenie postrzeganej przez matki bliskości z ich dzieckiem. Efekt ten jest mediowany przez stres rodzicielski. Nie stwierdzono istotnego związku między postrzeganym przez matki zagrożeniem koronawirusem a relacją matki z dzieckiem. *Wnioski:* Pandemia i związane z nią sytuacje trudne stanowią w grupie matek istotny czynnik ryzyka nadużyć i zaniedbań wobec dziecka. Wskazuje to na konieczność udzielania wsparcia matkom.

Słowa kluczowe: Pandemia COVID-19; stres rodzicielski; raniące rodzicielstwo; bliskość emocjonalna

Introduction

On 11 March 2020, the World Health Organization (WHO) declared a pandemic of the coronavirus disease 2019 (COVID-19) caused by SARS-Cov-2. The pandemic took people by surprise; it was a new and unprecedented experience with terrifying and unpredictable consequences. Many countries, including Poland, implemented measures to limit the spread of the virus. Some of these measures were particularly drastic; for example, the lockdown of society, which meant that people were only allowed to leave their homes for essential purposes. Moreover, many shops, restaurants, businesses, schools, universities, as well as cultural and sports institutions were closed, constraints on mobility were introduced, and people were required to maintain the so-called social distancing, and to wear face masks and disposable protective gloves (Auleytner & Grewiński, 2020). The coronavirus pandemic posed enormous and unexpected challenges for modern families, disturbing the ways in which they had functioned so far, and forcing them to develop new forms of functioning. As a result, the image of the Polish family during the pandemic has changed completely (Młyński, 2020).

Many researchers considered that it was crucial to study how people coped in such a demanding situation and hence a number of studies have been carried out in this area. These focused, among others, on the impact of COVID-19 pandemic on mental health (Heitzman, 2020), the role of age in the early psychological responses to the pandemic (Justo-Alonso, García-Dantas, González-Vázquez, Sánchez-Martín, & del Río -Casanova, 2020), the importance of communication for experiencing loneliness and satisfaction with life during the pandemic (Kosowski & Mróz, 2020), the importance of support (Olender-Jermacz, 2020) and of individual characteristics (Smith, Twohy, & Smith, 2020) for the well-being of an

individual during social isolation, the experiencing of grief during the pandemic (Wallace, Wladkowski, Gibson, & White, 2020), or the impact of pandemic on the families of front-line rescue workers (Feng, Xu, Cheng, Zhang, Li, & Li, 2020). Intra-family relationships, including those between spouses and between parents and children, constitute a key area of interpersonal relationships that are particularly vulnerable to the impact of the COVID-19 pandemic. Previous studies of couples' relationships during the pandemic have shown that having a good romantic relationship had a positive effect on the individual's well-being (Pieh, O'Rourke, Budimir, & Probst, 2020) and that the pandemic had a detrimental effect on the quality of couples' relationships (Pietromonaco & Overall, 2020). Research findings have also confirmed that the coronavirus pandemic has significantly affected parent-child relationships (e.g. Bérubé, Clément, Lafantaisie, LeBlanc, Baron, Picher, Turgeon, Ruiz-Casares, & Lacharité, 2020; Brown, Doom, Lechuga-Peña, Watamura, & Koppels, 2020; Chung, Lanier, & Ju Wong, 2020; Lawson, Piel, & Simon, 2020; Ben-Yaakov & Ben-Ari, 2021; Cluver, Lachman, Sherr, Wessels, Krug, Rakotomalala, Blight, Hillis, Bachman, Green, Butchart, Tomlinson, Ward, Doubt, & McDonald, 2020). The aim of this study was to examine how selected psychological aspects of the pandemic influenced the relationship between mother and child. The study analyzed the effect of mother's perceived threat of coronavirus and of her experiences related to the COVID-19 pandemic on her relationship with the child: mother-reported increase in the use of harsh parenting behaviors and mother's perceived closeness with her child. The analyses considered the mediating role of parental stress. The study was conducted in Poland. It provides a better understanding of how external stressors (related to the pandemic) increase the risk of undesirable behaviors of mothers towards their children.

1. Theoretical background

The COVID-19 pandemic has transformed daily lives of individuals, presenting them with multiple new challenges, also those concerning interpersonal relations, especially relations between family members. As a result of the pandemic, a number of individuals have become financially worse off and found it more difficult to access many resources. Pandemic-related challenges constitute one of possible external stressors that may threaten the quality of intra-family relationships. Previous studies confirm that external stressors (such as financial difficulties, demanding work, or natural disasters) can adversely affect the quality and even durability of a couple's relationship (Pietromonaco & Overall, 2020) and the quality of parent-child relationship (Chung et al., 2020).

Experiencing parental stress is common among parents of children of any age and in any culture (Louie, Cromer, & Berry, 2017). Parental stress is amplified in families experiencing stressors (Nielsen, Pontoppidan, & Rayce, 2020), including external stressors;

for example, a pandemic. It is defined as a psychological reaction (distress) that occurs when parents are unable to meet the demands placed on them in relation to their parental role because they do not have sufficient resources, such as energy, time, or skills. (Holly, Fenley, Kritikos, Merson, Abidin, & Langer, 2019). Parental stress may result both from demands and from the cognitive appraisal of those demands. Being exposed to stressors may lead to cognitive, emotional and physical fatigue, which in turn may overwhelm parent-child relationships (Deater-Deckard, 2014), increasing the risk of harsh parenting (Beckerman, van Berkel, Mesman, & Alink, 2017). The quality of parent-child relationships is best explained by considering not just one stressor, but the accumulation of stressors (McGoron, Riley, & Scaramella, 2020; Lamela & Figueiredo, 2018). The negative consequences of a stressor – which in this case is the coronavirus pandemic – also depend on how it is perceived; for example, whether it is perceived as a threat (Lazarus & Folkman, 1984).

The Parenting Stress Model (Abidin, 1992) assumes that parental stress is a key factor that explains the behavior of a parent towards their child - especially undesirable behavior (Berry & Jones, 1995) and the use of harsh parenting (Beckerman, van Berkel, Mesman, & Alink, 2017; Chung et al. 2020) - and increases the risk of abusive and neglecting behavior (Brown, Doom, Lechuga-Peña, Watamura, & Koppels, 2020).

2. Conceptual model and research hypotheses

Based on the theoretical concept of parental stress and research results, we developed a conceptual model of relations between variables (Fig. 1). The model assumes that the COVID-19 pandemic has been a source of many external stressors, and that individuals make the cognitive appraisal of risks associated with the pandemic. Moreover, it assumes that two psychological aspects of the pandemic, i.e., external stressors unrelated to the relationship with the child and caused by the COVID-19 pandemic (e.g., economic losses, being isolated, hospitalization, death and hospitalization of relatives, etc.), as well as the perceived threat of coronavirus, may affect the quality of relationship with the child. It is assumed that these two psychological aspects of the pandemic are highly likely to affect the relationship between mother and child, threatening its quality and leading to an increase in the use of harsh parenting as reported by the mother and a decrease in the mother's perceived closeness with her child.

Furthermore, it is assumed that the effect of coronavirus pandemic on the mother's behavior is mediated by parental stress. It is therefore expected that:

H1. Mothers who experience more coronavirus-related stressors will experience more parental stress;

H2. Mothers who perceive threat posed by the coronavirus as higher will experience more parental stress;

H3a. Higher parental stress will be associated with a greater increase in the use of harsh parenting during the pandemic as reported by mothers ;

H3b. Higher parental stress will be associated with a decrease in the mother's perceived closeness with her child;

H4. Parental stress will mediate the relationship between greater impact of the pandemic and the negative effects in mother-child relationship.

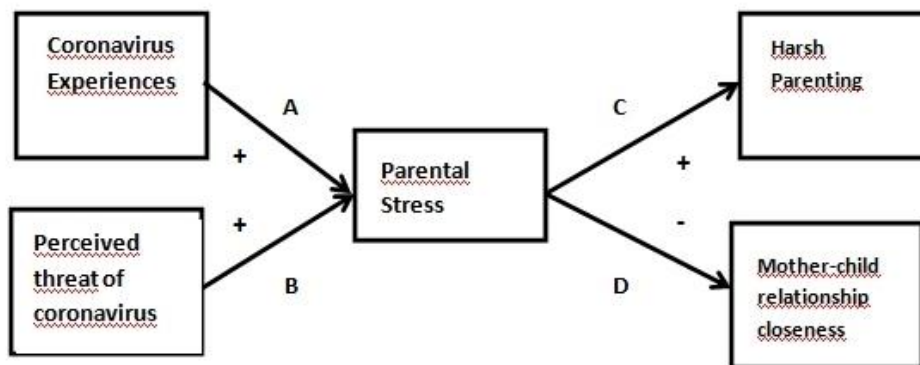


Fig. 1. Theoretical model of dependencies between variables

3. Method

The study analyzed the results obtained from 155 women who were selected from a larger group of female participants in a survey on the impact of the pandemic on family functioning. The selection criteria for the study group included: being in a relationship

(either formal or informal) and raising at least one child aged 7 to 12. The analysis focused on families with schoolchildren, as at the time when the survey had been conducted schools were closed due to the pandemic restrictions and many parents had to work from home, which had a significant impact on families, especially on mothers. The survey was carried out online with the LimeSurvey tool in the period between February 19, 2021 and April 2, 2021.

4. Measurement of variables

The study used questionnaires to measure two psychological aspects of the COVID-19 pandemic: perceived coronavirus threat and pandemic-related experiences. These variables were measured using the Polish-language versions of questionnaires developed by Conway, Woodard, and Zubrod (2020). The Perceived Coronavirus Threat Questionnaire (Conway et al., 2020) was used to assess how threatened or worried mothers felt about the coronavirus epidemic. The questionnaire consisted of six items (e.g., "Thinking about the coronavirus (COVID-19) makes me feel threatened", "I am worried that I or people I love will get sick from the coronavirus (COVID-19)"). For each of the statements, respondents marked their answers on a seven-point scale, where 1 means "not true of me at all" and 7 means "very true of me." The original questionnaire was translated into Polish in accordance with the applicable rules and the psychometric validity of the Polish scale was confirmed. One item ("I am not worried about the coronavirus (COVID-19)" was removed from the scale, as it would require reverse-scoring. As a result, Cronbach's reliability coefficient α was improved (before the item was removed: $\alpha = 0.88$; and after it was removed: $\alpha = 0.93$). The Polish version of the scale shows very high internal reliability and its validity was also confirmed. Confirmatory factor analysis (CFA) showed good psychometric properties of the Polish version of the scale [$\chi^2(4) = 4.19$; $p = 0.38$; CMIN / df = 1.05; GFI = 0.989; AGFI = 0.960 and RMSEA = 0.02 (90% LO < 0.001; HI = 0.12; PCLOSE = 0.56); SRMR = 0.02; CFI = 1.00; TLI = 0.999] (Xia & Yang, 2019). Its validity was also confirmed by examining correlations between the results obtained from the Polish version and those from the original Perceived Coronavirus Threat Scale (Krok & Zarzycka, 2020). The pandemic-related experiences and the perceived impact of the pandemic on life were assessed with the scale developed on the basis of the Coronavirus Experiences and Impacts Questionnaire (Conway et al., 2020). Following the recommendation of its authors that researchers use the items as they had been formulated in the original questionnaire or adapt them as they see fit, the list of items concerning experiences related to the pandemic was expanded. Based on the literature review and the pilot study results, we added items regarding experiences connected with the pandemic and the impact of pandemic on life. These added items concerned both negative phenomena (stressors) and positive ones. For each statement, respondents were to mark

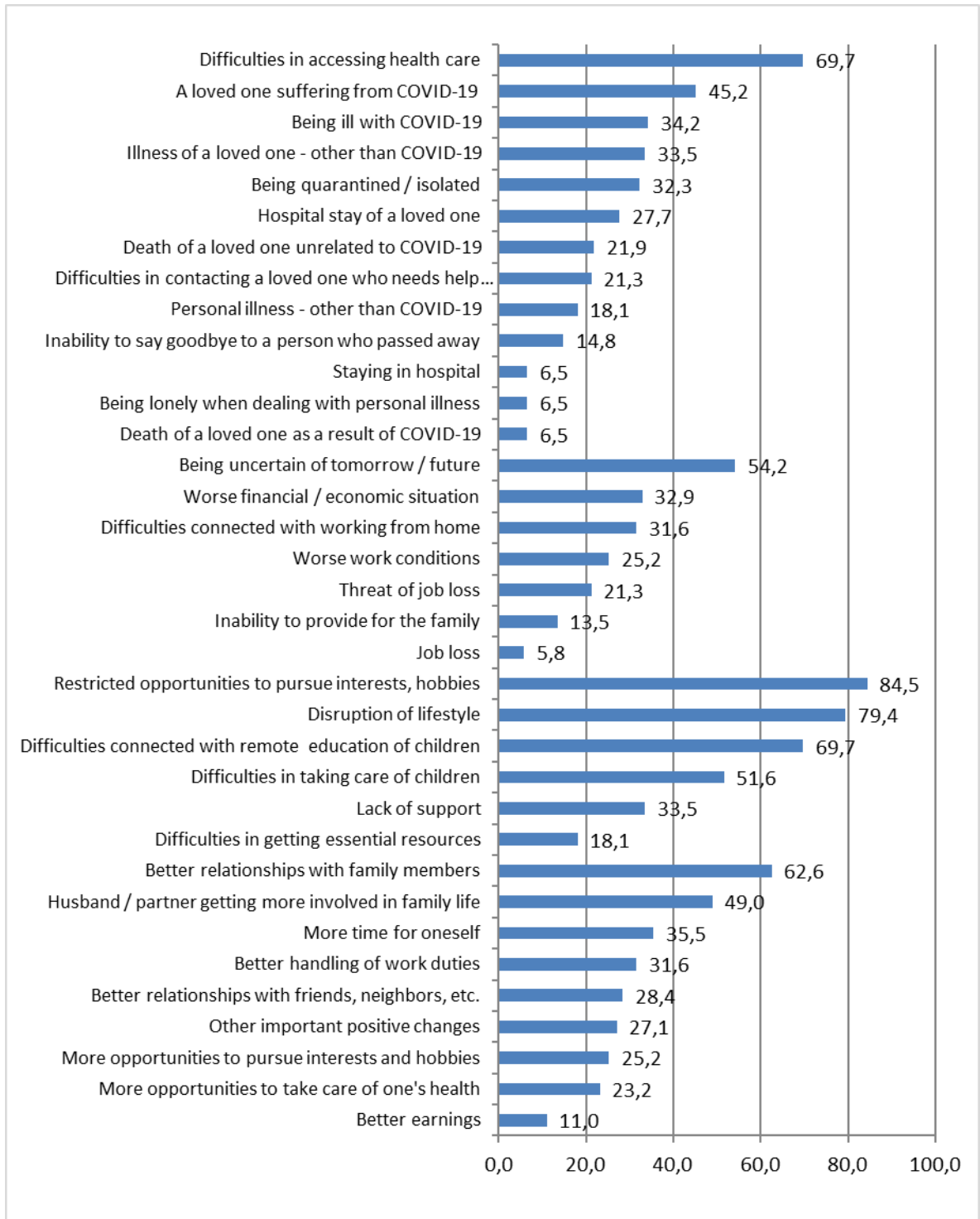
whether they had experienced a given situation during the pandemic or not. The answer “yes” was coded as the occurrence of a given experience (negative or positive) and was assigned 1 point. All responses were then summed up to develop an index of stressors and of positive experiences related to the COVID-19 pandemic. A higher score indicates a greater number of experiences of a given type. Table 1 provides a full list of experiences.

Parental stress was measured with the Polish version of The Parental Stress Scale (Berry & Jones, 1995), which is widely used to assess the levels of stress associated with being a parent (Nielsen, Pontoppidan, & Rayce, 2020). Higher scores on this scale are associated with lower levels of parental sensitivity to the child, poorer child behavior, and a lower quality of parent-child relationship (Berry & Jones, 1995). The original version consists of 18 items, with respondents indicating how much they agree or disagree with each item on a five-point scale (1 - strongly disagree; 5 - strongly agree). However, following the analyses that employed the results of the Polish version of the Parental Stress Scale, we removed three items and thus the Polish version ultimately consisted of 15 statements. Confirmatory factor analysis supported the factor validity of the scale [$\chi^2(69) = 128.14$; $p < 0.001$; CMIN / df = 1.86; GFI = 0.905; AGFI = 0.834; RMSEA = 0.075 (90% LO = 0.054; HI = 0.095; PCLOSE = 0.026); SRMR = 0.07; CFI = 0.944; TLI = 0.915]. The validity of the scale was also confirmed by analyzing correlations between its results and the results obtained from the scale that measured intensification of difficult situations in relationships with children and the spouse before the pandemic (Pearson's $r = 0.21$, $p = 0.008$), and the scale measuring parental cooperation (Pearson's $r = -0.36$, $p < 0.001$). The Polish version of the scale shows satisfactory reliability measured by Cronbach's coefficient ($\alpha = 0.896$).

The study considered two indicators of mother-child relationship during the pandemic: mother-reported increase in the use of harsh parenting, and the mother's perceived closeness with her child. These variables were measured with Polish versions of two scales developed originally by Chung, Lanier, and Wong (2020) for the purposes of research during the COVID-19 pandemic. The scale for measuring an increase in harsh parenting during the pandemic consists of three statements: “I yelled /screamed at child(ren) more often,” “I used harsh words on child(ren) more often,” and “I spanked or caned child(ren) more often.” Respondents marked how true each statement was about their behavior during the pandemic on a four-point scale (where 1 = Not true of me at all, and 4 = Very true of me). We summed the scores across the three items to create a measure of harsh parenting. Higher scores indicated a greater increase in the use of harsh parenting during the pandemic. The psychometric validity of the Polish version of the scale was confirmed. The validity of the scale was verified by confirmatory factor analysis and by analyzing the correlation between its results and the results obtained from the scales that measured the mother's assessment of parental cooperation (Pearson's $r = -0.31$, $p < 0.001$) and the mother's aggressive behaviors in conflict situations with her child (Pearson's $r = 0.46$, $p < 0.001$). The

Polish version of the scale shows a satisfactory internal reliability measured with Cronbach's α ($\alpha = 0.79$). The scale used to assess the mother's perceived closeness with her child during the pandemic consisted of three statements: "How close do you feel to your child(ren) during the pandemic," "How often have you praised or complimented your child(ren) during the pandemic?," and "How often have you and child(ren) shown love and affection to each other during the pandemic?" Respondents marked their answers on a five-point scale / (1 - never; 5 - always). We summed the scores across the three items to create a measure of closeness. Higher scores indicated a closer relationship during the pandemic. The psychometric validity of the Polish version was confirmed. The validity of the scale was tested by confirmatory factor analysis and by analyzing the correlation of the scale results with the results obtained from the scales measuring the mother's assessment of parental cooperation (Pearson's $r = 0.35$, $p < 0.001$) and the mother's aggressive behavior in conflict situations with her child (Pearson's $r = -0.34$, $p < 0.001$). The Polish version of the scale shows a satisfactory internal reliability measured with Cronbach's α ($\alpha = 0.91$).

Table 1. Negative and positive experiences related to the coronavirus pandemic (percentage of mothers reporting a given experience)



5. Statistical analyses

We used a structural equation modeling (SEM) framework as suggested in AMOS 27 (Arbuckle, 2019) in the SPSS package. Structural equation modeling enables to determine whether the *a priori* model is supported by empirical data (Konarski, 2009). It is used to test hypothetical causal relations between variables and indirect effects (Staniec, 2018). In the analyses, we tested the model developed based on theoretical knowledge (Fig. 1). The model was tested separately for each of the two indicators of mother-child relationship: mother-reported increase in the use of harsh parenting and the mother's perceived closeness with her child. Since latent variables in the model were measured with scales consisting of several items, the aggregate measurement was treated as a manifest variable. We verified whether an important condition of item aggregation had been met, namely whether items in each scale represented one dimension; i.e., whether they measured one construct (Little, Cunningham, & Shahar, 2002). The values of Cronbach's reliability coefficient α (ranging from 0.79 to 0.93) and results of confirmatory factor analyses allowed us to assume that this condition had been met. Therefore, it can be assumed that the questions in questionnaires that we used measure the analyzed phenomenon consistently. To evaluate model fit, we used indices based on the chi-square fit statistics (CMIN, CMIN / DF) and measures of model fit: SRMR (Standardized Root Mean Square Residual), CFI (Comparative Fit Index) and RMSEA (Root Mean Square Error of Approximation), which are recommended in the literature (Hu & Bentler, 1998). Based on the literature (Bedyńska & Książek, 2012), it was assumed that the following values indicated good fit between the theoretical model and empirical data: $RMSEA \leq 0.06$; $SRMR \leq 0.08$; $CFI > 0.90$, $RMSEA \leq 0.06$. The maximum likelihood (ML) method was used. In our analyses, we employed the bootstrap method, generating 1600 bootstrap samples to produce bootstrap confidence intervals.

6. Results

6.1. Demographic characteristics of respondents

The mean age of the women who met the eligibility criteria and were included in the study group was 38.21 (SD = 5.85) and the mean length of their relationship (in years) stood at 14.49 (SD = 5.83). Almost all of them were married (90.3% being in a civil and/or church marriage while 9.7% living in an informal relationship - partnership/cohabitation). The vast majority were professionally active (89.7%) and completed at least secondary education (91.6%; including 23.9% that completed secondary or post-secondary education and 67.7% - higher education); the remaining ones (8.4%) had basic vocational education. Most respondents (60.6%) lived in small-towns or rural areas, while 39.4% in mid-size and large

cities. The study was conducted during the period when the Covid-19- related restrictions were in place (including remote education for children and many parents working from home). In the group of professionally active mothers, the majority (54.0%) worked only on-site, while the remaining ones combined remote and on-site work (38.8%) or worked only remotely (7.2%). The number of children in their families varied from one to six. Most families had two children (57.4%), families with one child and three children constituted a much smaller percentage (14.2% and 9.4%, respectively), and families with four and six children were the smallest group (7.1% and 1.9%, respectively). Children in these families were of different ages, ranging from 2 to 19 years old. The mean age of children was 2.27 (SD = 0.93), with at least one child aged 7 to 12 in each family. In most families (65.5%) children learned both remotely and in class, in about one third of families (27.7%) - only remotely, and in the remaining families (4.5%) - only in class.

6.2. Results of two-variable correlation analyses

Table 2. presents the descriptive statistics of the distribution of variables included in the analyses. Table 3 shows the values of Pearson *r* correlation coefficients between these variables.

Table 2. Descriptive Statistics of Study Variables

Variable	Min	Max	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
Perceived threat of coronavirus	5	35	18,26	9,01	0,329	-0,891
Coronavirus Experiences	0	26	8,61	5,07	0,691	0,769
Parental Stress	14	47	23,68	8,38	0,966	0,129
Mother-child relationship closeness	6	15	13,19	1,97	-0,838	0,069
Harsh Parenting	3	12	5,82	2,11	0,818	0,551

Bivariate correlations indicate that higher parental stress is significantly associated with higher levels of mothers' harsh parenting behaviors and poorer emotional closeness with their children, and it is positively associated with the perceived threat of coronavirus and with pandemic-related experiences. No significant correlation, however, has been found between the perceived threat of coronavirus and pandemic-related experiences.

Table 3. Correlation Table for Study Variables (r -Pearson)

Variable	1	2	3	4	5
1. Perceived threat of coronavirus	-				
2. Coronavirus Experiences	0,05	-			
3. Parental Stress	0,16*	0,36***	-		
4. Mother-child relationship closeness	-0,13	-0,28***	-0,43***	-	
5. Harsh Parenting	0,17*	0,10	0,35***	-0,26***	-

Note: * $p \leq 0,05$; ** $p \leq 0,01$; *** $p \leq 0,001$

6.3. Results of analyses with structural equation modeling

The obtained fit indices allow us to conclude that both the model with the outcome variable: mother-reported increase in harsh parenting [$\chi^2 (2) = 2.354$; $p = 0.308$; CMIN/ df = 1.177; GFI = 0.992; AGFI = 0.962 and RMSEA = 0.034 (LO <0.001; HI = 0.167; PCLOSE = 0.437; SRMR = 0,0359) and also NFI = 0.950; CFI = 0.991; RFI = 0.850], and the model with the outcome variable: mother's perceived closeness with the child [$\chi^2 (2) = 4.645$; $p = 0.098$; CMIN / df = 2.322; GFI = 0.985; AGFI = 0.927 and RMSEA = 0.09 (LO <0.001; HI = 0.206; PCLOSE = 0.188; SRMR = 0.0465) and NFI = 0.923; CFI = 0.951; RFI = 0.768] fit well the variance and co-variance matrix, which means that they are a useful representation of reality. Table 4 shows standardized and unstandardized path coefficients and the bootstrap confidence intervals at the 95% level.

Research findings (Tab. 4) indicate that the impact of negative COVID-19-related experiences indirectly influenced mother-child relationship through its effect on parental stress. Mothers who have had more negative COVID-19-related experiences suffer from greater parental stress (unstandardized direct effect= 0.574; $p \leq 0.01$), and mothers who experience greater parental stress report an increase in harsh parenting behaviors during the pandemic (unstandardized direct effect = 0.088; $p \leq 0.01$) and a decrease in their perceived closeness with the child (unstandardized direct effect = -0.10; $p \leq 0.01$). Negative experiences related to the coronavirus affect maternal behaviors in relation to the child only indirectly, through parental stress. They were not found to have a direct effect on the mother's behavior - independent of their effect on parental stress. The unstandardized indirect effect equaled 0.05 ($p \leq 0.001$) for mother-reported harsh parenting behaviors, and -0.057 ($p \leq 0.001$) for mother's perceived closeness with the child. It was found that there was no significant effect

(either direct or indirect) of the perceived threat of coronavirus on mother-child relationship and on parental stress.

Table 4. Total, Direct, and Indirect Effects

	Outcome: Harsh Parenting			
	Standardized β	Unstandardized β	Left-Bound 95% Confidence Interval	Right-Bound 95% Confidence Interval
Total Indirect Effects:				
Perceived threat of coronavirus → Outcome	0,05	0,012	-0,002	0,034
Coronavirus Experiences → Outcome	0,12	0,05***	0,024	0,088
Direct Effect:				
Parental Stress → Outcome	0,35	0,088**	0,044	0,12
	Outcome: Mother-child relationship closeness			
Total Indirect Effects::				
Perceived threat of coronavirus → Outcome	-0,062	-0,013	-0,037	0,002
Coronavirus Experiences → Outcome	-0,15	-0,057***	-0,096	-0,026
Parental stress → Outcome	-0,43	-0,10**	-0,141	-0,056
	Outcome: Parental Stress			
Perceived threat of coronavirus → Outcome	0,15	0,14	-0,035	0,303
Coronavirus Experiences → Outcome	0,35	0,574**	0,288	0,781

Note: * $p \leq 0,05$; ** $p \leq 0,01$; *** $p \leq 0,001$

The perceived threat of coronavirus and negative experiences related to the coronavirus taken together account for 15% of the variability in parental stress, while all the three variables taken together account for 12% of the variability in mother-reported increase harsh parenting behaviors, and 18% of the variability in mother's perceived closeness with the child.

Discussion

The aim of the study was to determine the impact of the coronavirus pandemic on the relationship between mother and child. Two psychological aspects of the pandemic were considered: mothers' perceived threat of coronavirus and their negative pandemic-related experiences. As expected, mothers' negative experiences related to the pandemic significantly affect mother-child relationships: mothers who have experienced more stressful situations report a greater increase in harsh parenting behaviors and they indicate that they are less emotionally close to their children. As hypothesized, this relationship is mediated by parental stress. However, we found no direct effect of negative experiences related to the pandemic on the mother-child relationship. Contrary to expectations, we did not find any significant effect of mothers' perceived threat of coronavirus on their relationship with their children.

The research findings show that the pandemic has a negative impact on mother-child relationships and this impact is fully mediated by parental stress. Thus, it is necessary to take measures to mitigate the negative effects of the pandemic. This is important for the well-being of children and their mothers.

Bibliography:

- Abidin, R.R. (1992). The Determinants of Parenting Behavior, *Journal of Clinical Child Psychology*, 21 (4), 407-412.
- Arbuckle, J.L. (2019). *IBM SPSS AMOS 26 User's Guide*, Amos Development Corporation.
- Auleytner, J., & Grewiński, M. (2020). Pandemia koronawirusa i ryzyka społeczne z nią związane a chaos w zarządzaniu państwem – dokąd zmierzamy? (in:) N.G. Pikuła, M. Grewiński, E. Zdebska, & W. Glac (eds.), *Wyzwania dla polityki społecznej w kontekście pandemii koronawirusa*, 11-24, Kraków: Wydawnictwo «scriptum».
- Beckerman, M., van Berkel, S.R., Mesman, J., & Alink, L.R. (2017). The role of negative parental attributions in the associations between daily stressors, maltreatment history, and harsh and abusive discipline, *Child Abuse and Neglect*, 64, 109-116.
- Bedyńska, S., & Książek, M. (2012). *Statystyczny drogowskaz 3. Praktyczny przewodnik wykorzystania modeli regresji oraz równań strukturalnych*, Warszawa: Wydawnictwo Akademickie Sedno Spółka z o.o.

- Ben-Yaakov, O., & Ben-Ari, O. T. (2021). COVID-19-Related anxieties and parenting stress among first-time mothers and fathers in their first year of parenthood, *Psychology and Health*, 1–15, <https://doi.org/10.1080/08870446.2021.1942875>.
- Berry, J. O., & Jones, W. H. (1995). The Parental Stress Scale: Initial psychometric evidence, *Journal of Social and Personal Relationships*, 12(3), 463–472.
- Bérubé, A., Clément, M. È., Lafantaisie, V., LeBlanc, A., Baron, M., Picher, G., Turgeon, J., Ruiz-Casares, M., & Lacharité, C. (2021). How societal responses to COVID-19 could contribute to child neglect, *Child Abuse and Neglect*, 116 (Pt 2), 104761, <https://doi.org/10.1016/j.chiabu.2020.104761>.
- 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 and Neglect*, <https://doi.org/10.1016/j.chiabu.2020.104699>.
- Chung, G., Lanier, P., & Wong, P. (2020). Mediating Effects of Parental Stress on Harsh Parenting and Parent-Child Relationship during Coronavirus (COVID-19) Pandemic in Singapore, *Journal of Family Violence*, 1–12, <https://doi.org/10.1007/s10896-020-00200-1>.
- Cluver, L., Lachman, J. M., Sherr, L., Wessels, I., Krug, E., Rakotomalala, S., Blight, S., Hillis, S., Bachman, G., Green, O., Butchart, A., Tomlinson, M., Ward, C. L., Doubt, J., & McDonald, K. (2020). Parenting in a time of COVID-19, *Lancet (London, England)*, 395(10231), e64, [https://doi.org/10.1016/S0140-6736\(20\)30736-4](https://doi.org/10.1016/S0140-6736(20)30736-4).
- Conway, L.G., III, Woodard, S.R., & Zubrod, A. (2020, April 7). Social Psychological Measurements of COVID-19: Coronavirus Perceived Threat, Government Response, Impacts, and Experiences Questionnaires, <https://doi.org/10.31234/osf.io/z2x9a>.
- Deater-Deckard, K. (2014). *Parenting Stress (Current Perspectives in Psychology)*, New Haven, CT: Yale University Press.
- Feng, Z., Xu, L., Cheng, P., Zhang, L., Li, L.J., & Li, W.H. (2020). The psychological impact of COVID-19 on the families of first-line rescuers, *Indian Journal of Psychiatry*, 62, 438–44.
- Heitzman, J. (2020). Wpływ pandemii COVID-19 na zdrowie psychiczne/Impact of COVID-19 pandemic on mental health, *Psychiatria Polska*, 54(2), 187–198, <https://doi.org/10.12740/PP/120373>.
- Holly, L.E., Fenley, A.R., Kritikos, T.K., Merson, R.A., Abidin, R.R., & Langer, D.A. (2019). Evidence-Base Update for Parenting Stress Measures in Clinical Samples, *Journal of Clinical Child and Adolescent Psychology*, Sep-Oct, 48(5), 685–705.
- Hu, L., & Bentler, P. (1998). Fit indices in covariance structure modeling: sensitivity to underparameterized model misspecification, *Psychological Methods*, 3 (4), 424–453.
- Justo-Alonso, A., García-Dantas, A., González-Vázquez, A.I., Sánchez-Martín, M., & del Río-Casanova, L. (2020). How did Different Generations Cope with the COVID-19

- Pandemic? Early Stages of the Pandemic in Spain, *Psicothema*, 32 (4), 490-500, <https://doi.org/10.7334/psicothema2020.168>.
- Konarski, R. (2009). *Modele równań strukturalnych. Teoria i praktyka*, Warszawa: Wydawnictwo Naukowe PWN.
- Kosowski, P., & Mróz, J. (2020). Ocena komunikacji a poczucie samotności i satysfakcji z życia w czasie pandemii, *Kwartalnik Naukowy Fides et Ratio*, 2 (42), 214-226. <https://doi.org/10.34766/fetr.v42i2.284>.
- Krok, D., & Zarzycka, B. (2020). Risk Perception of COVID-19, Meaning-Based Resources and Psychological Well-Being amongst Healthcare Personnel: The Mediating Role of Coping, *Journal of Clinical Medicine*, 9(10), 3225, <https://doi.org/10.3390/jcm9103225>.
- Lamela, D., & Figueiredo, B. (2018). A Cumulative Risk Model of Child Physical Maltreatment Potential: Findings From a Community-Based Study, *Journal of Interpersonal Violence*, 33(8), 1287-1305, <https://doi.org/10.1177/0886260515615142>.
- Lawson, M., Piel, M. H., & Simon, M. (2020). Child Maltreatment during the COVID-19 Pandemic: Consequences of Parental Job Loss on Psychological and Physical Abuse Towards Children, *Child Abuse and Neglect*, 110 (Pt 2), 104709, <https://doi.org/10.1016/j.chiabu.2020.104709>.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*, New York : Springer Pub.Co.
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling*, 9 (2), 151-173.
- Louie, A. D., Cromer, L. D., & Berry, J. O. (2017). Assessing parenting stress: Review of the use and interpretation of the Parental Stress Scale, *The Family Journal*, 25(4), 359-367.
- McGoron, L., Riley, M.R., Scaramella, L.V. (2020). Cumulative socio-contextual risk and child abuse potential in parents of young children: Can social support buffer the impact?, *Child and Family Social Work*, 25(4), 865-874, <https://doi.org/10.1111/cfs.12771>.
- Młyński, J. (2020). Rodzina w sytuacji pandemii koronawirusa COVID-19 jako wyzwanie dla polityki lokalnej, (in:) N.G. Pikuła, M. Grewiński, E. Zdebska, & W. Glac (eds.), *Wyzwania dla polityki społecznej w kontekście pandemii koronawirusa*, 69-88, Kraków: Wydawnictwo «Scriptum».
- Nielsen, T., Pontoppidan, M., & Rayce, S.B. (2020). The Parental Stress Scale revisited: Rasch-based construct validity for Danish parents of children 2-18 years old with and without behavioral problems, *Health and Quality of Life Outcomes*, Aug;18(1), 281, 10.1186/s12955-020-01495-w. PMID: 32807191; PMCID: PMC7430114.
- Olender-Jermacz, B. (2020). Doświadczenie przez rodzinę wsparcia społecznego podczas izolacji domowej spowodowanej chorobą COVID-19/Family experience of social

- support during home isolation due to COVID-19 disease, *Kwartalnik Naukowy Fides et Ratio*, 2(42), 206-212, <https://doi.org/10.34766/fetr.v42i2.307>.
- Pieh, C., O'Rourke, T., Budimir, S., & Probst, T. (2020). Relationship quality and mental health during COVID-19 lockdown. *PLoS ONE* 15(9): e0238906, <https://doi.org/10.1371/journal.pone.0238906>.
- Pietromonaco, P.R., & Overall, N.C. (2020). Applying Relationship Science to Evaluate How the COVID-19 Pandemic May Impact Couples' Relationships, *American Psychologist*, Advance online publication, <http://dx.doi.org/10.1037/amp0000714>.
- Smith, B.M., Twohy, A.J., & Smith, G.S. (2020). Psychological inflexibility and intolerance of uncertainty moderate the relationship between social isolation and mental health outcomes during COVID-19, *Journal of Contextual Behavioral Science*, 18, 162-174, <https://doi.org/10.1016/j.jcbs.2020.09.005>.
- Staniec, I. (2018). Modelowanie równań strukturalnych w naukach o zarządzaniu, *Organizacja i Kierowanie*, 2 (181), 65 – 77.
- Wallace, C. L., Wladkowski, S. P., Gibson, A., & White, P. (2020). Grief During the COVID-19 Pandemic: Considerations for Palliative Care Providers, *Journal of Pain and Symptom Management*, 60(1), e70–e76, <https://doi.org/10.1016/j.jpainsymman.2020.04.012>.
- Xia, Y., & Yang, Y. (2019). RMSEA, CFI, and TLI in structural equation modeling with ordered categorical data: The story they tell depends on the estimation methods, *Behavior Research Methods*, 51, 409–428.