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Consequences of Restrictive Measures, and Not the Illness Itself, Predict Perceived Deterioration in the Quality of Daily Lives Due to the COVID-19 Pandemic in Parents of School-Aged Children*

Abstract

This study aims to analyse parents' perception of the pandemic's impact on their daily lives, considering experienced stressful COVID-19-related events, and effect on the condition of family members. A total of 1072 triads (mother, father, and child) participated in the study. We assessed the perceived changes in daily lives due to the pandemic and the occurrence of seven stressful COVID-19 events (for both parents) and positive and negative affective states experienced in the last few weeks (for both parents and their children). Fathers who were prohibited from doing their job or experienced a decrease in income during the pandemic were more likely to perceive greater negative changes in the quality of their daily lives. Mothers' perception of negative changes was associated with decreased income, death of a close person, self-isolation and the father's negative affect. Personal or child experience of the COVID-19 infection

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did not contribute to the explanation of the variance of perceived deterioration in daily lives in none of the samples.

Keywords: *parents, quality of life, affective states, COVID-19, stressful events*

Introduction

An Individual's subjective well-being is usually defined by the frequency of experienced positive and negative affect and overall life satisfaction. Lucas and Donnellan (2007) define well-being as the extent to which people think and feel that their life is going well. During the last decades of the 20th century, the dominant perspective among scholars in positive psychology was that the well-being level was almost stable (Argyle, 1999) and only fluctuated around the threshold (e.g., as the body temperature). Lucas and Donnellan (2007) challenged that perspective by showing a significant degree of instability that might depend on contextual circumstances.

When it comes to the factors related to the pandemic, research shows that families with children are often regarded as more vulnerable compared to other social groups (Hiraoka & Tomoda, 2020) since they experienced greater changes in the structure of daily lives caused by the pandemic (e.g., homeschooling, isolation from older family members, cancellation of child's hobbies and sports). Gassman-Pines et al. (2020) argue that at least four mechanisms regulate the effects of the pandemic on families: parental job loss, income loss, caregiving burden, and illness. Of course, those mechanisms often co-occur as they are interrelated, so the appearance of one increases the probability of the others. Furthermore, the mechanisms are likely to influence all the family members. Therefore, COVID-19-related stressors are often additive and overwhelming. Studies clearly show that the pandemic affected the psychological well-being of both parents (Cameron et al., 2020) and children (Imran et al., 2020). As for the mentioned mechanisms, Rossi et al. (2021) found that the presence of any COVID-19 stressful life event, such as economic or health problems, was associated with depressive and anxiety symptoms and perceived stress.

Most research found a significant low positive association between child and parental well-being (Casas et al., 2012). It is important to point out that this shared variance in well-being is probably due to the bidirectional impact of observed happiness between a parent and a child (the happiness of one stimulates the happiness of another) and shared genetic and environmental factors. Regarding the environment, life circumstances (e.g., poverty, health issues), family dynamics (e.g., rituals,

values, norms), and important life events (e.g., moving into another town, finding a new job) influence the family as a whole and its members. All those factors could improve or decrease one's well-being. Exploring the well-being of families in the sample of children aged 9-12 and their parents, Hoy and colleagues (2013) reported a positive association between parents and children's life satisfaction.

While family dynamics and daily life circumstances have been comprehensively explored in many studies, the possible impact of child emotions on parent well-being is rarely studied. Imran et al. (2020) explain how school-aged children, during the pandemic, may start showing typical regressive behaviours or become demanding. The authors argue that those stressful behaviours in children may influence parents and cause various reactions, including feeling inadequate, sad, and depressed.

While the COVID-19 pandemic affected everyone in some way, particular COVID-19-related stressful events were more common than others. For example, at specific points in time, elementary and high schools shifted to an online model of schooling for a certain period, and in those cases, the situation changed similarly for most families with children within that specific age range. On the other hand, some other events, such as illness or job loss, were experienced by only some families. The extent to which pandemic-related events influence families and their members largely depend on various factors. In this research, we study whether affective states experienced by other family members shape parents' perception of deterioration in the quality of daily lives (DQL) caused by the pandemic.

Therefore, this research aimed to study the predictive value of COVID-19-related stressful events and the affective states of family members (the other parent's and the child's) on the perception of DQL due to the pandemic.

Hypothesis: Perception of DQL due to the pandemic can be explained by one own and family members' higher levels of negative affect and lower levels of positive affect and the experience of COVID-19-related stressful events.

Method

Participants

A total of 1072 triads (mother, father, and child) were included in this study. The criteria for inclusion were that all of them filled in at least a part of the questionnaire personally (on their own) to avoid single-parent families, as well as those where one parent filled in the questionnaire for both.

The mean age of children was 10.5 years, with a standard deviation of about 19 months. A little over half of the children in the sample were girls (52.1%). They attended third (N=280, 26.16%), fourth (N=297, 27.73%), fifth (N=258, 24.1%) or sixth (N=237, 22.1%) grade of elementary school. On average, mothers (mean age 41.24, sd=4.58) were somewhat younger than fathers (mean age 43.74, sd=5.25).

Procedure

This study was a part of comprehensive longitudinal research on the well-being of children in a family context (CHILD-WELL), funded by the Croatian Science Foundation[1]. After obtaining approval from the Ethical board of the authors' institution and the Croatian Ministry of Science and Education, researchers selected 15 schools in two Croatian counties. After initial contact with school administration, parents of children attending third, fourth, fifth, and sixth grade were asked to participate and to give permission to include their child in the study. Children whose parents signed the consent form were later approached in school during regular classes by the school psychologist. Those children who consented to participate filled out the prepared paper questionnaires. Group administration of the questionnaire lasted about 45 minutes. Parents, both mothers and fathers, received their questionnaires through their children. After completing the questionnaire, each parent returned it in a sealed envelope to the school. The research was conducted during the spring of 2021.

Instruments

To assess the perception of change in the quality of life due to COVID-19, parents answered the question: "All in all, how much situation caused by the COVID-19 pandemic deteriorated your daily life?" Parents answered using an 11-point scale from 0 – "Not at all" to 10 – "Very much".

To find out which COVID-19-related events a parent experienced, we applied a checklist with seven COVID-19-related events: personal COVID-19 infection, child's COVID-19 infection, being fired, a decrease of income, self-isolation, prohibition of work, death of a close person. Each parent answered if it happened or not for each of these events.

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Emotions expressed by family members can moderate one's perception of the quality of their daily life. Therefore, besides COVID-19-related events, we assessed experienced positive and negative affect on all family members (mother, father, child).

1) Panas (Watson et al., 1988) consists of 20 items indicating emotions (10 positive emotions, e.g., happy and 10 negative emotions, e.g., sad). Respondents answered how often during the last few weeks they experienced a certain mood using a 5-point Likert scale ranging from 1 ("very slightly or not at all") to 5 ("extremely").
   Cronbach alpha for both mothers and fathers was 0.86 for PA and 0.9 for NA, among children, Cronbach alpha was 0.77 for PA and 0.75 for NA.
2) Modified Panas-C (Ebesutani et al., 2012) was used to assess children's affect. It consists of adjectives describing positive (joyful, cheerful, happy, lively, proud, active) and negative (miserable, mad, afraid, scared, sad, frightened) moods. While the original version contains 10 adjectives, we included two additional adjectives (active and frightened) after initial revision during pilot research. Children were asked to rate adjectives based on how often they have felt that way in the past few weeks using a 5-point Likert scale ranging from 1 ("Very slightly or not at all") to 5 ("Extremely").

RESULTS

Both parents, on average, report experiencing moderate DQL caused by the pandemic (Table 1). Compared to fathers, mothers experienced about 3% greater change (M(PERCm)= 5.6±2.48; M(PERCf)= 5.3±2.64; t=2.7, p<0.01). In both parents, their perception of DQL due to the pandemic was associated with their own positive and negative affective states and the negative affective states of the partner. For fathers, it was also associated with the positive affect of the child and the mother.

Regarding experienced positive and negative affect (Table 1), all three groups of participants reported experiencing significantly more positive than negative affect states, with positive affect well above and negative affect well below the theoretical average of the scale (M_t=3, M(PAc)=4.1±.66; M(NAc)=1.8±0.69). Association between affective states among parents were all significant (p<.01). A child's negative affect was only associated with the mother's negative affect (p<.01), while the child's positive affect was associated with the father's positive affect (p<0.01), and the mother's positive and negative affect (p<0.05). Mothers experienced more

Table 1. Correlations between affective states among family members (M±SD on the diagonal)

	$PERC_f$	**$PERC_m$**	**PA_f**	**NA_f**	**PA_m**	**NA_m**	**PA_c**	**NA_c**
$PERC_f$	5.3±2.64	**.44**	*-.08*	**.21**	*-.7*	*.8*	*-.8*	.05
$PERC_m$		5.6±2.48	-.02	**.13**	**-.11**	**.23**	-.02	-.03
PA_f			3.7±.61	**-.28**	**.28**	**-.13**	**.1**	-,06
NA_f				2.0±.72	**-.11**	**.24**	-,06	.02
PA_m					3.6±.62	**-36**	*,08*	-.01
NA_m						2.2±.78	*-.07*	**.09**
PA_c							4.1±.66	**-.25**
NA_c								1.8±0.69

Note. PERC – Perception of DQL due to the Covid-19 pandemic
PA – positive affect, NA – negative affect, $_f$ – fathers, $_m$ – mothers, $_c$ – children,
Bold $p<0.01$, italic $p<0.05$

negative affect compared to fathers (M(NAm)=2.2±0.78; M(NAf)=2.0±.72); t=7.1, p<0.01), while children experienced more positive (M(PAc)=4.1±.66; M(PAm)= 3.6±.62; t_{cm}=16.4, p<0.01; (M(PAc)=4.1±.66; M(PAf)= 3.7±.61; t_{cf}=14.6, p<0.01) and less negative affect (M(NAc)=1.8±0.69; M(NAm)=2.2±0.78; t_{cm}=13.6, p<0.01; M(NAc)=1.8±0.69; M(NAf)=2.0±.72; t_{cf}=7.6, p<0.01) compared to both parents. As expected, in all cases, within a participant, positive moods were positively associated with positive and negatively with negative moods.

Table 2. Percent of participants in each sample who experienced a particular event, correlation with criteria (Perception of DQL due to COVID-19), and correlation between the occurrence of events among mothers and fathers

	Fathers		**Mothers**		**Corr (m, f)**
	% (yes)	**Corr.**	**% (yes)**	**Corr.**	
Personal COVID-19 infection	23.3	.01	24.9	.05	.54
Child's COVID-19 infection	13.6	.04	13.8	.04	.95
Being fired	3.1	.10**	4.3	.1**	.21
Income decrease	21.0	.23**	21.9	.22**	.34
Self-isolation	43.4	.08*	48.0	.11**	.55
Prohibition of work	14.4	.17**	12.3	.13**	.28
Death of a close person	19.7	.04	22.5	.14**	.47

The most often experienced event, with nearly half of the participants reporting it, was self-isolation (Table 2). Furthermore, over 20% of the participants in all three groups experienced COVID-19 infection, income decrease, and death of a close person (19.7% in fathers). Prohibition of work and child recovery from COVID-19 were reported by less than 15%, while the least frequent event was being fired with less than 5% occurrence. In both samples, participants' own or their child's infection with COVID-19 was not related to their perception of DQL. All other events were significantly associated with the reported change in the quality of life for at least one parent (The death of a close person was the only event significant in the mothers' sample). While the correlation between mothers' and fathers' experience of the event "Child's COVID-19 infection" was extremely high ($r=0.95$), as it was supposed to be (since it is the same child), correlations between other variables were, although all significant at $p<.01$, much lower. So, inside the same family, members were more likely to share the same stressor, but still, many events were experienced by only one parent.

We conducted backward stepwise regression to test the hypothesis that the perception of DQL due to the pandemic can be explained by one's and family members' higher levels of negative affect and lower levels of positive affect and the experience of COVID-19-related stressful events. We set removal to $p(F)>.1$ to reduce the set of predictor variables to those that are necessary (Table 3). In the initial regression equation, we entered all variables significantly associated with criteria in at least one of the samples. Therefore, the following variables were excluded: participants' infection with COVID-19, child's infection with COVID-19 and child's negative affect. Using pandemic-related events and the affective states of family members, the model explained 6.3% of the variance in the fathers' sample and 8.9% in the mothers' sample. In the fathers' sample, significant predictors were a decrease in income and the prohibition of work. The mother's negative affect was the borderline significant predictor that was still kept in the model. So, fathers who experienced a decrease in income and were prohibited from doing their job during the pandemic were more likely to perceive greater negative changes in the quality of their daily lives. In the mothers' sample, significant predictors were income decrease, self-isolation, death of a close person, and the father's negative affect. The borderline significant predictor still kept in the model was the prohibition of work. So, mothers who experienced income decrease, death of a close person, self-isolation, and whose partners experienced more negative affect, were more likely to perceive greater negative changes in their daily lives because of the pandemic. Thus, the hypothesis was partially confirmed since not all expected variables contributed to predicting perceived DQL.

Table 3. Prediction of perception of DQL due to the pandemic

	Fathers			Mothers		
	Std. beta	**t**	**sig**	**Std. beta**	**t**	**sig**
Being fired						
Income decrease	,205	6,12	**,000**	,186	5,8	**,000**
Self-isolation				,088	2.77	**,006**
Prohibition of work	,081	2,42	**,016**	,059	1,82	,069
Death of a close person				,113	3,56	**,000**
Positive affect – child						
Positive affect – mother	,058	1,82	,069			
Negative affect – mother						
Positive affect – father						
Negative affect – father				,12	3,84	**,000**
	R=.25, R2=0.063, p<0.01			R=.30, R2=0.089, p<0.01		

To summarise, for both mothers and fathers, the financial burden was related to the perception of DQL due to the pandemic. Indeed, in both samples, income decrease was the predictor with the highest beta value. "Being fired" was not a significant predictor in none of the samples, presumably because of its very low frequency and shared variance with income decrease.

Regarding the affective states of family members, it seems only the negative affect of the other parent is associated with the perception of declined quality of daily life. In none of the samples, the child's affect was not included in the model as one of the necessary predictors.

For mothers, the fathers', but not their own negative affect was predictive of perceived DQL due to the pandemic.

Discussion

The only predictor of perceived DQL that was significant in both samples was decreased income. This finding aligns with the results of Kimhi et al. (2020), who reported that economic difficulties due to the COVID-19 show the highest correlations with a sense of danger and distress symptoms. Considering that, based on the level of income inequality, Croatia is in the middle range of EU countries and that the World Bank expects the pandemic to further affect the country's economy (The World Bank, 2021), it is not surprising that to our

participants decrease in income caused by the COVID-19 pandemic is not only related to a decreased standard of living but could also imply a threat of poverty and uncertain future of the family. As such, it imposes a great source of stress, and unsurprisingly it affects the perceived DQL. Interestingly, events related specifically to the disease caused by the COVID-19 virus, such as being infected with COVID-19 or a child being infected, were not associated with the perception of DQL due to the pandemic.

Fathers' negative affective states predicted mothers' perceived DQL but not vice versa. This finding corresponds to the well-known fact that women are, compared to men, more sensible of the emotions of others (e.g., Christov-Moore et al., 2014). Additionally, since the patriarchal legacy can still be observed within Croatian culture (Kodrnja, 2002), women may be more likely to shape their perception of quality of life, considering their partners' emotional responses. Looking at fathers' predictors, this assumption becomes even more plausible since only traditional men's domains (work and finance) significantly explain their perception of DQL due to the pandemic.

The absence of predictive value of child positive or negative affective states on parents' perception of DQL is intriguing. Results show that parents feel the same DQL regardless of the frequency of positive and negative affect experienced by their child. This finding contradicts Imran et al. (2020) convincing suggestion that a child's stress reactions during the pandemic would cause various negative emotional and behavioural outcomes in parents. A simple statistical explanation for this finding might be the lack of variance in children's affect. Indeed, children's ratings of positive and negative affect were rather uniform and showed very high levels of positive and very low levels of negative affective states. Luckily, this indicates that children's well-being was not severely and/or lastingly influenced by the pandemic, at least when measured by experienced affective states. Previous studies found a small negative effect of the pandemic on children's well-being and emotion (Ravens-Sieberer et al., 2021). Since the research in this study was conducted in the spring of 2021, high positive and low negative affect in children can also suggest that the children have already adapted to the life changes caused by the pandemic, which started a year earlier.

Several limitations should be considered concerning this study. Although we assessed seven important pandemic-related events in this research, we focused on those which are dominantly negative and did not include those that could be perceived as both positive and negative (such as working from home). When asking about the perceived influence of the pandemic on daily lives, we did not investigate the possibility of positive, but only negative effects.

The correlation nature of the research does not allow us to make causal conclusions regarding relations between studied variables. Furthermore, we did not assess objective DQL due to the pandemic, but their impressions. While, for example, longitudinal research could compare well-being at two-time points (pre and during the pandemic), this study asked participants to rate DQL themselves. Thus, our criteria variable was formulated as "perceived DQL due to the pandemic", so it contained causality provided only by respondents.

Conclusion

Both parents, on average, report experiencing moderate DQL caused by the pandemic, with the mothers' evaluations slightly poorer than those of the fathers.

A decrease in income predicted perceived DQL due to COVID-19 for both mothers and fathers. Additionally, in the fathers' sample, prohibition from doing their job was a significant predictor of perceived DQL, while in the mother's sample, self-isolation, death of a close person, and negative affect of the father contributed significantly to the explanation of perceived DQL. For both parents, the child's experienced affective states didn't contribute to the explanation of variance of the perceived DQL due to the pandemic.

The results indicate that, except for decreased income, which was a significant predictor in both samples, different factors contribute to the formation of the perception of DQL for mothers and fathers. Fathers seem to be more worried about typical male roles (i.e., providing for the family), while mothers are concerned with financial and social-emotional stressors (self-isolation, death of a close person, father's negative affect). It is important to stress that in none of the samples, the participants' or child's illness was associated with perceived DQL. This finding implies that the disease-related factors were perceived as less threatening than stressors caused by implemented health measures (e.g., self-isolation) and wider consequences of restrictions (e.g., economic crisis).

References

Argyle, M. (1999). Causes and correlates of happiness. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 353–373). Russell Sage Foundation New York.

Cameron, E., Joyce, K., Delaquis, C., Reynolds, K., Protudjer, J., & Roos, L. E. (2020). Maternal psychological distress & mental health services use during the COVID-19

pandemic. *Journal of Affective Disorders, 276*, 765–774. https://doi.org/10.1016/j.jad.2020.07.081

Casas, F., Coenders, G., González, M., Malo, S., Bertran, I., & Figuer, C. (2012). Testing the Relationship Between Parents' and Their Children's Subjective Well-Being. *Journal of Happiness Studies, 13*(6), 1031–1051. https://doi.org/10.1007/s10902-011-9305-3

Christov-Moore, L., Simpson, E. A., Coudé, G., Grigaityte, K., Iacoboni, M., & Ferrari, P. F. (2014). Empathy: Gender effects in brain and behavior. *Neuroscience & Biobehavioral Reviews, 46*, 604–627. https://doi.org/10.1016/j.neubiorev.2014.09.001

Ebesutani, C., Reise, S. P., Chorpita, B. F., Ale, C., Regan, J., Young, J., Higa-McMillan, C., & Weisz, J. R. (2012). The Revised Child Anxiety and Depression Scale-Short Version: scale reduction via exploratory bifactor modeling of the broad anxiety factor. *Psychological assessment*, *24*(4), 833–845. https://doi.org/10.1037/a0027283

Gassman-Pines, A., Ananat, E. O., Fitz-Henley, J. (2020). COVID-19 and Parent-Child Psychological Well-being. *Pediatrics. 146*(4), e2020007294. https://doi.org/10.1542/peds.2020-007294

Hiraoka, D., & Tomoda, A. (2020). Relationship between parenting stress and school closures due to the COVID-19 pandemic. *Psychiatry and Clinical Neurosciences, 74*, 497–498. https://doi.org/10.1111/pcn.13088

Hoy, B. D., Suldo, S. M., & Raffaele Mendez, L. (2013). Link between parents' and children's levels of gratitude, life satisfaction, and hope. *Journal of Happiness Studies, 14*, 1343–1361. https://doi.org/10.1007/s10902-012-9386-7

Imran, N., Zeshan, M., & Pervaiz, Z. (2020). Mental health considerations for children & adolescents in COVID-19 Pandemic. *Pakistan journal of medical sciences, 36*(COVID19-S4), S67–S72. https://doi.org/10.12669/pjms.36.COVID19-S4.2759

Kimhi, S., Marciano, H., Eshel, Y., & Adini, B. (2020). Recovery from the COVID-19 pandemic: Distress and resilience. *International journal of disaster risk reduction*: *IJDRR, 50*, 101843. https://doi.org/10.1016/j.ijdrr.2020.101843

Kodrnja, J. (2002). Patrijarhalnost u hrvatskoj obitelji: briga ili dominacija. [Patriarchy in the Croatian family: care or domination]. *Sociologija i prostor:* časopis *za istraživanje prostornoga i sociokulturnog razvoja, 40*, ½, 155-180.

Lucas, R. E., & Donnellan, M. B. (2007). How Stable is Happiness? Using the STARTS Model to Estimate the Stability of Life Satisfaction. *Journal of research in personality, 41*(5), 1091–1098. https://doi.org/10.1016/j.jrp.2006.11.005

Ravens-Sieberer, U., Kaman, A., Erhart, M., Devine, J., Schlack, R., & Otto, C. (2021). Impact of the COVID-19 pandemic on quality of life and mental health in children and adolescents in Germany. *European Child & Adolescent Psychiatry*, 1–11. https://doi.org/10.1007/s007

Rossi, R., Jannini, T. B., Socci, V., Pacitti, F., & Lorenzo, G. D. (2021). Stressful Life Events and Resilience During the COVID-19 Lockdown Measures in Italy: Association with Mental Health Outcomes and Age. *Frontiers in Psychiatry*, *12*, 635832. https://doi.org/10.3389/fpsyt.2021.635832

The World Bank. (2021). *Poverty and Equity Briefs*. https://www.worldbank.org/en/topic/poverty/publication/poverty-and-equity-briefs

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*(6), 1063–1070. https://doi.org/10.1037//0022-3514.54.6.1063

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