RELATIONSHIP BETWEEN OPTIMISM-PESSIMISM LEVELS OF MOTHERS AND ANXIETY LEVELS OF CHILDREN IN TURKEY DURING COVID-19 PANDEMIC

Hatice Kübra Tongar[1], Nurper Ülküer[1], Murat Yıldırım[2], Ekmel Geçer[3] & Ömer Akgül[3]

[1]Department of Child Development, Uskudar University, Uskudar, Turkey
[2]Department of Psychology, Ağrı İbrahim Çeçen University, Ağrı, Turkey
[3]Department of Psychology, University of Health Sciences, Istanbul, Turkey

SUMMARY

Background: *The COVID-19 pandemic affects all aspects of the population including children, elderly, and vulnerable people. The aim of this study is to examine, for the first time, the relationship optimism-pessimism levels of mothers and anxiety level of children in turkey during COVID-19 pandemic.*

Subjects and methods: *Optimism-Pessimism Scale and Preschool Anxiety Scale were used to collect data from a representative sample of 33,362 mothers with children aged 3-6 years.*

Results: *Of the parents, 53% of them reported that their children were slightly anxious due to COVID-19 pandemic. Lower optimism and higher pessimism were significantly related with higher levels of children's anxiety including social, generalized, separation, and overall anxiety as well as obvious fear. Group comparison analysis indicated that very anxious children reported the highest level of different types of anxiety and fear compared to less anxious and not at all anxious children.*

Conclusion: *These findings suggest that mental health of children has been adversely affected during the pandemic and this has important implications for designing and implementing interventions aimed at reducing anxiety levels of children and determining protective and risk factors associated with anxiety in the face of adversity.*

Key words: *COVID-19 pandemic - optimism-pessimism - anxiety level - children*

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INTRODUCTION

At the end of December 2019, the World Health Organization (WHO) declared a new type of coronavirus (COVID-19) as a public health crisis that threatened public health around the world (WHO 2020). The WHO described this situation as a pandemic. Although the effects of pandemic on physical health have been overly emphasized, the psychological effects of pandemic have been relatively neglected (Yıldırım 2021, Yıldırım et al. 2020a). The effects of pandemics on physical health are devastating and vital. However, psychological reactions that occur during the pandemic have longer-lasting effects than the physical effects of pandemic (Arslan & Burke 2021, Green 2022, Taylor 2019, Waters & Charles Higgins 2021, Yıldırım et al. 2020b).

The most common emotion experienced during pandemics is anxiety about one's own health or the health of one's relatives (Green & Yıldırım 2022, Çağış & Yıldırım 2022, Green et al. 2022, Hu et al. 2022, Yıldırım 2021, Yıldırım et al. 2021). Anxiety is a subjectively negative inner experience. Having a certain level of anxiety leads people to stay away from dangers, be cautious and obey the precautions (Carleton 2016). Concerns about the security occur during pandemics are highly experienced among people around the world. The fact that people are exposed to life threats by a virus that they do not fully control and do not know how to function also triggers a sense of uncertainty (Yıldırım & Güler 2021). Fear of the unknown is one of the basic fears like fears and anxieties about security (Carleton 2016).

Optimism is an important and favoured concept in positive psychology (Öztürk 2017, Yıldırım 2020). Those who do not have wish, hope, and optimism in life is expressed as a pessimistic person (Carver et al. 1994). Optimism arises in relation to personality and event. Personality-specific optimism (Scheier & Carver 1993) is used as a personality trait to mean the tendency to expect positive results rather than negative results in one's life in a continuous and consistent manner which is independent from the current situation and condition.

During the COVID-19 pandemic, family members including children had to stay at home other than doing essential work or seek urgent medical care. Children faced such a situation for the first time compared to adults and witnessed the pandemic through social media and television channels (Tongar 2020). Studies reveal a relationship between individuals' perception of the disease in pandemic situations, reactions to the disease and adaptation to the disease (Hekler et al. 2008). Yet parental factor plays an important role for children to cope with problems that they had during the lockdown. Accordingly, mothers in a family, during a pandemic, tend to experience higher anxiety levels than men in the context of parents-children relationship (Ekiz et al. 2020). Therefore, this study aims to examine the relationship between optimism-pessimism levels of mothers and anxiety levels of their children during the COVID-19 process.

SUBJECTS AND METHODS

Participants and procedure

The study sample consisted of mothers who voluntarily participated in this research. A total of 34.585 mothers were invited to take part in the study and only 33.362 mothers who stated that they had children aged between the ages of 3-6 were included in the study. All participants assured about confidentiality and anonymity of responses. They were fully informed about purpose of the study and their rights throughout the participation in the study. The surveys were conducted online between 01 April 2020 and 01 May 2020. The survey was distributed using social networking sites. Ethical approval for this study was obtained from Üsküdar University Clinical Research Ethics Board (approval number: 61351342/2020-245).

Measures

Personal Information Form

The personal information form was prepared by the researcher and included sociodemographic characteristics of the participants such as age, marital status, education level and number of children.

Optimism-Pessimism Scale

The Optimism-Pessimism scale was developed by Çalışkan and Uzunkol (2018). The scale was used to determine the level of optimism-pessimism of mothers. Each question is answered on a 5-point Likert type scale ranging from 1 (not suitable) to 5 (completely suitable). The scale includes 16 items with 2 sub-dimensions: optimism (8 items) and pessimism (8 items). There is no reverse item in the scale. High scores on the subscales refer to high levels of optimism and pessimism. In this study, Cronbach's alpha coefficient values for optimism and pessimism were respectively 0.88 and 0.85.

Preschool Anxiety Scale

The scale was developed by Edwards et al. (2010) to determine anxiety level of children aged 3-6 years. Turkish validity study was conducted by Güler and Totan (2016). The scale consists of 30 questions and 4 sub-dimensions: social anxiety sub-dimension (7 items), generalized anxiety dimension (7 items), separation anxiety dimension (5 items) and distinct fears dimension (9 items). There are no reverse coded items in the scale. The sum of these sub-dimensions gives the "overall anxiety" score. High scores indicate a higher level of anxiety. In this study, Cronbach's alpha coefficient values for subscales and overall anxiety ranged between 0.57 (separation anxiety) and 0.89 (overall anxiety).

Statistical Analysis

Statistical Package for the Social Sciences (SPSS Statistics 25.0) statistical program was used to analyse data. Percentage, number, and average statistics were used to define demographic data about the participants. The significance level was set to $p<0.01$. No issue of normality was observed using the Shapiro-Wilk test. One Way ANOVA Was used to compare anxiety scores based on the groups. Pearson correlation analysis was used to determine the relationship between the analysed variables.

RESULTS

Demographic characteristics of the sample are reported in Table 1. The majority of mothers (39.6%) ranged in age between 31-35 years followed by those (34.2%) who ranged between 26-30 years. Participants were predominantly married (98.3%) and graduated from high school (37%) and university (38%). More than half of the participants (51.3%) had two children whose ages ranged between 3 (24.5%) and 6 (23.8%) years.

Table 1. Demographic information about participants

Variable - Level	n	%
Age of mother		
20-25	2089	6.3
26-30	11426	34.2
31-35	13197	39.6
36-40	6650	19.9
Education level of mother		
Literate	172	0.5
Primary school	7331	22
High school	12332	37.0
University	12781	38.3
Master and above	880	2.6
Unanswered	36	0.1
Marital status		
Married	32788	98.3
Divorced	261	0.8
Spouse passed away	83	0.2
Live apart	195	0.6
Unanswered	35	0.1
Number of children		
1	8365	25.1
2	17128	51.3
3	6456	19.4
4 and above	1413	4.2
Age of children		
3	8174	24.5
4	8695	26.1
5	8542	25.6
6	7951	23.8

Participants were asked to report the anxiety levels of children by answering "How do you observe your child's anxiety level during this period?" on a scale ranging between not at all anxious and very anxious. As seen in Table 2, the results showed 53% of participants reported that their children experience a little bit anxiety during COVID-19 pandemic while 4.2% of the parents reported that their children were very anxious. Of the participants, 42.5% of them did not report any symptoms of anxiety for their children.

Table 2. Anxiety levels of children reported by parents

Question	Level	n	%
How do you observe your child's anxiety level during COVID-19 pandemic period?	Not at all anxious	14193	42.5
	A little anxious	17685	53.0
	Very anxious	1399	4.2
	Unanswered	85	0.3

Table 3. Correlation between mothers' optimism and children's anxiety levels

Variable	Social anxiety	Generalized anxiety	Separation anxiety	Obvious fears	Overall anxiety
Optimism	-0.14*	-0.14*	-0.10*	-0.13*	-0.16*
Pessimism	0.20*	0.26*	0.23*	0.20*	0.28*

Note: *$p<0.001$

Table 4. Mean score of anxiety according to anxiety level of mothers

Variable - Level	n	M±SD	Min	Max	p
Social anxiety					0.000*
Not at all anxious	14193	13.62±5.38	0	35	
A little anxious	17685	14.90±5.69	0	35	
Very anxious	1399	17.29±6.57	6	35	
Generalized anxiety					0.000*
Not at all anxious	14193	15.90±4.47	0	35	
A little anxious	17685	17.87±4.62	0	35	
Very anxious	1399	21.14±5.08	7	35	
Separation anxiety					0.000*
Not at all anxious	14193	9.81±3.73	0	25	
A little anxious	17685	11.15±3.98	0	25	
Very anxious	1399	13.60±4.56	2	25	
Obvious fears					0.000*
Not at all anxious	14193	20.27±6.13	2	45	
A little anxious	17685	21.85±6.39	1	45	
Very anxious	1399	24.96±7.18	8	45	
Overall anxiety					0.000*
Not at all anxious	14193	59.62±15.09	2	131	
A little anxious	17685	65.79±16.19	5	134	
Very anxious	1399	77.01±18.67	33	137	

Note: *$p<0.001$

The results of correlation analysis are presented in Table 3. Optimism was significantly negatively correlated with social anxiety, generalized anxiety, separation anxiety, obvious fear, and overall anxiety. Pessimism was significantly positively corelated with social anxiety, generalized anxiety, separation anxiety, obvious fear, and overall anxiety.

Children were grouped into not at all anxious, a little anxious, and very anxious groups and they were compared based on different types of anxiety as described in the Preschool Anxiety Scale. The results of this analysis are presented in Table 4. Very anxious group reported highest levels of social anxiety, generalized anxiety, separation anxiety, obvious fear, and overall anxiety compared a little anxious, and not at all anxious groups. Compared to not at all anxious group, a little anxious group reported higher levels of anxiety levels at above-mentioned dimensions.

DISCUSSION

The COVID-19 is a health crisis that has been identified as a major stressor to threaten mental health and well-being of many individuals around the world (Bhuiyan et al. 2020, Brooks et al. 2020). The COVID-19 pandemic can trigger mild to severe psychosocial problems such as depression, somatization, and anxiety (Arslan et al. 2020, Bhuiyan et al. 2020, Gunnell et al. 2020, Satici et al. 2020, Yıldırım 2021). This situation has created difficulties especially in children and mothers who cannot make of the psychological problems clearly (Öztürk et al. 2020). Positive psychology states that when focusing on the positive psychological resources and strengthening these positive aspects, the quality of life and life satisfaction will increase. As such, one of the strengths that positive psychology emphasizes is optimism. Therefore, people have the potential for optimism rather than pessimism (Dağcı 2014, Demir & Murat 2017).

This study examined the relationship between the optimism-pessimism levels of mothers who have children between the ages of 3-6 years during the COVID-19 pandemic and their children's anxiety levels. We found that the anxiety levels of the children decreased as the mothers' optimism levels increased (even in an uncertain and anxious process such as a pandemic). The mother's optimism seems to be a protective factor for the child's psychological health.

Hasan and Power (2002) investigated the relationship between mothers' optimism, pessimism and children's depressive symptoms. Their results revealed that maternal pessimism was positively correlated with children pessimism, while children anxiety levels were negatively correlated with maternal optimism. In our study, children's anxiety was found to be higher in children whose mothers stated as being very anxious. According to the anxiety levels reported by the mothers, the highest anxiety scores were found in the anxiety sub-dimensions described above, while the lowest anxiety scores were found in the separation anxiety sub-dimension. This suggests that mothers are competent in understanding the anxiety in their children. There is a negative correlation between mothers' optimism levels and children's social anxiety, generalized anxiety, separation anxiety, significant anxiety sub-dimension and total anxiety score. This shows that as the level of optimism increases/decreases in mothers, the anxiety sub-dimension and total anxiety scores in children decrease/increase. There is a positive correlation between mothers' pessimism levels and children's social anxiety, generalized anxiety, separation anxiety, significant anxiety sub-dimension and total anxiety score. This shows that as the level of pessimism increases/ decreases in mothers, the anxiety sub-dimension and total anxiety scores in children increase/decrease.

Studies regarding the optimism-pessimism levels of the mother and the anxiety levels in the children were insufficient, and these studies were mostly carried out in families with special needs children (Yildirim et al. 2020). More work is recommended in this area. The concept of optimism is an important concept in positive psychology. The predictors of this concept on both mothers, fathers and children should be studied separately, and the factors that will contribute to the optimism of parents should be determined in a wider context.

Contributions and limitations

This study has important implications for research and practice. In terms of the research, the study used a large representative sample from different socioeconomic backgrounds helped us to reach more powerful and considerable suggestions concerning timely assessment of the impacts of COVID-19 pandemic on psychological health of children and parents. Examining psychological experience of children and parents during the pandemic has been relatively neglected. This study contributes to the extant literature by providing evidence regarding the adverse impact of COVID-19 pandemic both on parents and children. In terms of practice, the current study examines the optimism-pessimism levels of the mother and the anxiety levels of children during the COVID-19 pandemic, which will give insight into the psychological experiences of children and parents in Turkey. Intervention programs can be developed to strengthen psychological resources of parents and children in times of health crisis. Such programs undoubtedly contribute to the preparation of children and parents to protect their psychological health against adverse impacts of pandemic in multiple forms (Doyumğaç et al. 2021, Tanhan & Strack 2020).

However, the current research also has several drawbacks that need to be addressed in future studies. The first limitation was the data collection strategy used in this study. An online survey was used and those who were unable to use internet or have limited access to the internet were not satisfactorily represented in this investigation. Nonetheless, collecting data via an online survey seemed to be the most realistic and feasible method as it would be unhealthy to invite people for a face-to-face interview during COVID-19 pandemic. Secondly, only a limited number of variables were examined in this study. Future research should consider other factors that may contribute to anxiety levels of parents during the current or subsequent pandemics.

CONCLUSIONS

The study results showed that COVID-19 pandemic has adversely affected mental health of children such as anxiety and fear. Optimism and pessimism were found to be significantly associated with mental health. These results are important in terms of shedding lights on understanding of factors that may help to reduce anxiety levels of children in the face of adversity.

Data availability statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

Conflict of interest: None to declare.

Contribution of individual authors:

Hatice Kübra Tongar, Nurper Ülküer: study design, literature review, method, results, discussion, approval of the final version.

Murat Yıldırım: literature review, method, results, discussion, approval of the final version.

Ekmel Geçer & Ömer Akgül: approval of the final version.

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Correspondence:

Associate Professor Murat Yıldırım, MD
Department of Psychology, Ağrı İbrahim Çeçen University, Faculty of Science and Letters
Erzurum Yolu 4 Km 04100, Merkez, Ağrı, Turkey
E-mail: muratyildirim@agri.edu.tr ; muratyildirimphd@gmail.com