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# COVID-19-related anxieties in first-time mothers during the first wave of the COVID-19 pandemic and after 6 months: A descriptive study

Ofir Ben-Yaakov, Orit Taubman – Ben-Ari \*

The Louis and Gabi Weisfeld School of Social Work, Bar-Ilan University, Israel

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## ABSTRACT

**Background:** The changes accompanying the transition to motherhood, joined by the stress aroused by the COVID-19 pandemic, may lead to high levels of parental anxieties. This study, conducted in two phases—in the midst of the first wave of the pandemic and after six months—explores differences in the level of COVID-19-related anxieties of Israeli mothers in their first year of parenthood.

**Design and methods:** A cross-sectional study carried out with 198 first-time mothers aged 22–48 who completed self-report questionnaires on April 2020 and again on October 2020. The questionnaire was distributed through social networks and included a demographic scale and the COVID-19-related anxieties questionnaire.

**Findings:** In the first phase, mothers reported higher anxieties concerning economic damage ( $M = 3.42$ ;  $3.11$ ), being in public places ( $M = 4.34$ ;  $M = 3.51$ ), using public transportation ( $M = 4.80$ ;  $M = 4.31$ ), and going for infant checkups ( $M = 4.13$ ;  $M = 3.06$ ). In the second phase, mothers reported higher anxiety about being infected ( $M = 3.19$ ;  $M = 3.48$ ).

**Discussion:** The results suggest the need to be attentive to the double stress of new mothers in a dynamic time of crisis, especially at the beginning of the crisis when anxiety levels may be highest.

**Application to practice:** The findings may aid in developing interventions for new mothers in times of crisis. The finding that the COVID-19-related anxieties of new mothers may decrease over time points to the urgency of making interventions by health and medical professionals available to women in the first months after the birth of their first child.

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## Introduction

According to the World Health Organization (WHO, 2020), by the first week in October 2020, the global outbreak of COVID-19 had infected around 42,000,000 individuals and caused more than 1,142,398 deaths. At this time, most countries were in the midst of the second wave of the pandemic. The crisis has drastically changed daily life for millions of people around the world, with countries imposing strict limits on public gatherings and intermittent lockdowns. The first wave of the pandemic began in Israel in February 2020, and a month-long lockdown was imposed at the end of March 2020. The second wave began in August 2020, about six months later, with another national five-week lockdown in September–October 2020. In Israel alone, a country with a population of approximately 9 million, as of October 22, 2020, there were 308,247 confirmed cases of the virus, 2319 people had died, and over 938,000 (22.7%) were unemployed.

During the two lockdowns, people were allowed to go no more than 0.5 and 1 km from their home (respectively) unless absolutely necessary, all non-essential workplaces were closed, schools and other educational institutions ceased to operate, certain hospital wards were converted into wards solely for COVID-19 patients and elective procedures were cancelled, public transportation was restricted, and the international airport was shut down. Following these periods, transportation restrictions were gradually eased, although most of the other regulations remained in place.

The need for social distancing and limits on physical interactions have had far-reaching consequences for parents everywhere, arousing feelings of isolation and despair, as well as reducing the tangible support available. Several studies examining the psychological consequences of the pandemic for parents have found that their main concerns were loneliness, lack of social or family support, stress, and emotional problems (Dib et al., 2020; Dokken et al., 2020; Gharagozloo et al., 2020; Ollivier et al., 2021; Stojanov et al., 2020). Such a long period of uncertainty, lack of routine, and negative psychological consequences can impair parental functioning, with implications not only for themselves, but for their infants as well.

\* Corresponding author at: The Louis and Gabi Weisfeld School of Social Work, Bar-Ilan University, Ramat Gan 52900, Israel.

E-mail address: [taubman@biu.ac.il](mailto:taubman@biu.ac.il) (O. Taubman – Ben-Ari).

This may be especially true for new parents, whose first child was born just before or during the pandemic. The transition to parenthood in and of itself requires coping with a variety of tasks and acquiring parental skills in a short time (Cowan & Cowan, 2000; Scher & Sharabany, 2005), marking mothers who are caring for their children (Atout et al., 2021), and specifically first-time mothers, as a vulnerable population (Chavis, 2016; Copeland & Harbaugh, 2019; Katz-Wise et al., 2010). The double challenge of dealing with this transition during a crisis may lead to increased fears and anxiety (Cluver et al., 2020) and may adversely affect the child's mental development over the next few years (McKegney, 2021). Indeed, in a previous study conducted in Israel in April 2020, parents of a first child between the age of 3–12 months reported high levels of anxiety regarding a variety of activities, including using public transportation, being in public places, the possible infection of family members and the infant, going for infant checkups, getting the virus themselves, and the health of the infant (Taubman – Ben-Ari & Ben-Yaakov, 2020). In addition, the considerable assistance often received from the extended family and friends during early parenthood has been severely constrained during the pandemic due to travel restrictions and avoidance of meetings with at-risk individuals, such as older family members (Settersten Jr et al., 2020).

Other studies have examined the mental health implications of COVID-19 for pregnant women and postpartum mothers and found that mothers who gave birth during the pandemic reported higher levels of postpartum depressive symptoms and anxiety levels than those who had given birth prior to the crisis. These results are reported for various places around the globe, including China (Li et al., 2021), UK (Fallon et al., 2021), Brazil (Lorentz et al., 2021), Italy (Spinola et al., 2020; Zanardo et al., 2020), Serbia (Stojanov et al., 2020), and Spain (Mariño-Narvaez et al., 2021). Furthermore, a meta-analysis (Yan et al., 2020) of studies among pregnant and postpartum women during the pandemic found that, in general, they reported more mental health problems, a higher level of postpartum depression, and higher anxiety levels than in routine times.

Most of the studies examining the effects of COVID-19 on parents were conducted during the first wave of the pandemic. The current study sought to expand this body of knowledge by following new mothers from the first wave to the second.

### The current study

The current study explores differences in the level of COVID-19-related anxieties of Israeli mothers in their first year of parenthood. It was conducted in two phases: (a) in March–April 2020, in the midst of the first wave of the pandemic; and (b) six months later, in September–October 2020, during the second wave. In addition, we examined the differences in anxiety levels between women who were quarantined due to exposure to an infected individual or travel abroad and those who were not, and between women who were familiar with a person infected with COVID-19 and those who were not. As no prior studies have been published on these issues, no hypotheses were set, and all analyses were exploratory.

The objectives of the current study were:

1. To describe the COVID-19-related anxieties of mothers following the birth of their first child.
2. To examine differences in the levels of COVID-19-related anxieties of new mothers between the two study phases.
3. To examine the correlations between sociodemographic characteristics and COVID-19-related anxieties.

### Design and methods

Following approval from the university's Institutional Review Board, this cross-sectional study was conducted in two phases- first in April 2020 and the again in October 2020, through a convenience sample of first-time mothers from Israel.

A request to participate in the study was posted on social media groups for parents. Women who expressed a desire to participate, received a link to an electronic version of the questionnaire and were offered the chance to win store vouchers. The opening page of the questionnaire ensured the anonymity and confidentiality of the information and explained that the participant could cease to participate at any stage should she wish to do so. Also, answering the questionnaire constitutes the participant's consent to its terms. The mothers were also informed that if they felt any distress during or after completing the questionnaire, they could call or email the researchers, whose contact details were supplied. Participants were considered eligible for the study if they were first-time mothers of infants aged 3–12 months and indicated that they could complete questionnaires in Hebrew. Of the 537 mothers who responded to the first phase questionnaire, after removing partial questionnaires or mothers who did not meet the general criteria of the study, 469 (87.3%) questionnaires remained that constituted the sample for the first phase.

In the second phase, an email was sent to all the mothers who completed the first questionnaire, asking them to complete a follow-up questionnaire. The mothers again received a link to an electronic version of the questionnaire and were offered the chance to win store vouchers. Instructions were identical to those written in phase 1. Of the 469 mothers who participated in the first phase of the study, 198 mothers completed the second questionnaire in October 2020 (42.2% response rate). Given that the study participants were new mothers, it can be assumed that various reasons prevented some of them from participating at the second phase of the study, such as absence due to health condition, personal time constraints, unwillingness to participate and so forth. As our study was conducted while dealing with the spread of COVID-19, attrition rates were acceptable and resulted in an overall attrition rate of 57.8%, which is comparable to other longitudinal field studies among parents during COVID-19 crisis (e.g., 57.1%; Liang et al., 2021). No significant differences were found in the background variables between the mothers who participated in phase 2 and the mothers who did not eventually participate in phase 2 of the study.

### Instruments

**COVID-19-related anxieties** (Taubman – Ben-Ari et al., 2020) were measured by 8 items that were originally designed for pregnant women and adapted for the current study. As they were presented as separate items, no psychometric assessments are available. Participants were asked how anxious they were regarding: (1) the economic damage that may be caused to them and their family by the outbreak of the virus; (2) getting the virus; (3) a family member being infected; (4) public places; (5) public transportation; (6) visiting hospitals or community clinics for infant checkups; (7) the health of their infant; (8) caring for their infant during the pandemic. The responses were marked on a scale between 1 (*very little*) and 5 (*very much*). Scores were given for each of the items separately, with a higher score reflecting greater anxiety.

**A sociodemographic questionnaire** was used to assess the mothers' background characteristics: age, education, physical health, economic status, family status, and infant's age. In addition, the participants were asked whether they had been quarantined at some time during the pandemic and whether or not they were familiar with anyone who had been infected.

### Data analysis

In a preliminary analysis, a descriptive data analysis of the study sample was conducted. Then, descriptive information on the study variables along with potential differences in COVID-19-related anxieties associated with mothers' personal experience of the virus (quarantine, familiarity with someone infected) were examined using *t*-tests for independent samples. Then, *t*-tests for dependent samples were

computed to examine differences in COVID-19-related anxieties between mothers in the two study phases. In the final stage, Pearson correlations were calculated between sociodemographic characteristics and the level of COVID-19-related anxieties in each phase.

## Results

### Descriptive statistics

The final sample consisted of 198 mothers aged 22–48 ( $M = 31.18$ ,  $SD = 4.29$ ) whose first child was between 3 and 12 months old ( $M = 7.36$ ,  $SD = 2.56$ ) in Phase 1 of the study. As can be seen in Table 1, most of the mothers ( $n = 156$ ; 78.7%) had an academic degree; 97% ( $n = 192$ ) of them were married or in a spousal relationship. In Phase 1, 54.3% ( $n = 107$ ) defined their income as average and 35.5% ( $n = 71$ ) as above average, and similar responses were obtained in Phase 2, with 47% ( $n = 93$ ) reporting average income and 36.4% ( $n = 72$ ) above average. In addition, in Phase 1, 35% ( $n = 39$ ) of the mothers reported a deterioration in their economic status following the outbreak of the pandemic and 65% ( $n = 129$ ) reported no significant change; in Phase 2, 27.3% ( $n = 54$ ) reported a deterioration in their economic status, 68.7% ( $n = 136$ ) reported no significant change. In Phase 1, 60.9% ( $n = 121$ ) of the mothers defined their health status as very good, 34% ( $n = 67$ ) as good, and the rest ( $n = 10$ ; 5.1%) as poor, whereas in Phase 2, 48.5% ( $n = 96$ ) of the mothers defined their health status as very good, 41.4% ( $n = 82$ ) as good, and the rest ( $n = 20$ ; 10.1%) as poor. Furthermore, in Phase 1, 23.7% ( $n = 47$ ) of the participants were familiar with someone who was infected, and 4% ( $n = 8$ ) had been quarantined at least once. In Phase 2, 66.7% ( $n = 132$ ) of the participants were familiar with someone who was infected, and 38.4% ( $n = 76$ ) had been in quarantine at least once. Because at the first phase of the study the COVID-19 was relatively marginally spread in Israel, only at phase 2 of the study, mothers were asked about being infected themselves with COVID-19, 2% ( $n = 4$ ) of the mothers reported being infected.

### Differences in COVID-19-related anxieties by personal experience

As can be seen in Tables 2–3, the  $t$ -tests for independent samples comparing mothers who had been quarantined (Phase 1,  $n = 8$ ; Phase 2,  $n = 76$ ) and those who had not (Phase 1,  $n = 190$ ; Phase 2,  $n =$

122), and mothers who were familiar with someone who was infected with the virus (Phase 1,  $n = 47$ ; Phase 2,  $n = 132$ ) and those who were not (Phase 1,  $n = 151$ ; Phase 2,  $n = 66$ ) yielded no significant differences in COVID-19-related anxieties between the groups in either phase. As there was no indication that personal experience of the virus affected the level of these anxieties, the remaining analyses were conducted on the sample as a whole.

### Differences in COVID-19-related anxieties by study phase

The means and standard deviations of the study variables by study phase, along with the results of the  $t$ -tests, appear in Table 4. As can be seen in Table 4, in Phase 1, mothers reported significantly higher anxiety over economic damage ( $M = 3.42$ ,  $SD = 1.09$ ) than in phase 2 ( $M = 3.11$ ,  $SD = 1.25$ );  $t(197) = 4.40$ ,  $p < .001$ . Similar differences between study phases were also found regarding staying in public places ( $M = 4.34$ ,  $SD = 0.90$ ;  $M = 3.51$ ,  $SD = 1.11$ , respectively);  $t(197) = 10.96$ ,  $p < .001$ , using public transportation ( $M = 4.80$ ,  $SD = 0.51$ ;  $M = 4.31$ ,  $SD = 1.08$ , respectively);  $t(197) = 6.60$ ,  $p < .001$ , and going for infant checkups ( $M = 4.13$ ,  $SD = 0.92$ ;  $M = 3.06$ ,  $SD = 1.12$ , respectively),  $t(197) = 13.37$ ,  $p < .001$ . However, in Phase 2, mothers reported significantly higher anxiety over being infected with COVID-19 ( $M = 3.48$ ,  $SD = 1.06$ ) than in phase 1 of the study ( $M = 3.19$ ,  $SD = 1.05$ );  $t(197) = -3.86$ ,  $p < .001$ .

### Associations between COVID-19-related anxieties and socioeconomic characteristics by study phase

The results of the Pearson correlations between sociodemographic characteristics and COVID-19-related anxieties in both study phases appear in Table 5. As Table 5 shows, in both phases, lower level of education was significantly associated with higher anxiety over economic damage, and higher level of education was significantly associated with higher anxiety over a family member being infected. Furthermore, lower economic status was significantly associated with higher anxiety over economic damage and higher worry over raising the infant. Differences between study phases were found regarding the associations with mother's age, so that in Phase 1 younger mothers reported higher anxiety over the health of their infant, whereas this correlation was not significant in Phase 2. In addition, in Phase 2 younger mothers reported greater anxiety over attending medical facilities, such as community clinics, hospitals and medical centers, for medical checkups of their infant, an association that was not significant in Phase 1. Finally, only in Phase 2 was lower mother's health status significantly associated with higher anxiety over economic damage and raising the infant.

## Discussion

Coping with the spread of COVID-19 over time has forced millions of people around the globe to deal with a range of troubling emotions and uncertainty about the future. During the past year, numerous studies have examined the effect of the COVID-19 pandemic on individuals' health, both physical and mental, in general, and specifically among parents (e.g., Curtis et al., 2021; González-Sanguino et al., 2020; Patrick et al., 2020; Wang et al., 2020). However, most studies conducted on mothers have examined the effect on their mental health at one point in time (Ceulemans et al., 2021; Dib et al., 2020; Fernandes et al., 2021; Peng et al., 2021), or have compared women who gave birth during the crisis with those who gave birth before its onset (Chasson et al., 2021; Loret de Mola et al., 2021; Racine et al., 2021; Tchimtchoua Tamo, 2020). The present study sought to expand this body of knowledge by examining COVID-19-related anxieties among new mothers in Israel at two points in time during the pandemic.

The study offers new insights into the specific anxieties of first-time mothers during this demanding period. Mothers participating in this study reported lower levels of COVID-19-related anxieties over going

**Table 1**  
Descriptive statistics for the sample of first-time mothers by Study phase ( $N = 198$ ).

Variable	Phase 1		Phase 2	
	N	%	N	%
Marital status				
Married/Spousal relationship	192	97	192	97
Single	6	3	6	3
Education level				
High school/Post high school	42	21.3	–	–
Academic	156	78.7	–	–
Income				
Below average	20	10.2	33	16.6
Average	107	54.3	93	47
Above average	71	35.5	72	36.4
Economic status following the outbreak of COVID-19				
Deterioration	69	35	54	27.3
No significant change	129	65	136	68.7
Improvement	–	–	8	4
Health status				
Poor	10	5.1	20	10.1
Good	67	34	82	41.4
Very good	121	60.9	96	48.5
Familiarity with an infected person				
No	151	76.3	66	33.3
Yes	47	23.7	132	66.7
Stay in quarantine				
No	190	96	122	61.6
Yes	8	4	76	38.4

**Table 2**  
Means, standard deviations and t-tests for COVID-19-related anxieties by personal experience- phase 1.

	Phase 1					Familiar with infected person (n = 47)		Not familiar with infected person (n = 151)		t
	Quarantined (n = 8)		Not Quarantined (n = 190)		M	SD	M	SD		
Economic damage	3.63	1.06	3.41	1.10	0.53	3.28	1.17	3.47	1.07	1.03
Being infected	3.38	0.92	3.18	1.06	0.59	2.94	0.99	3.27	1.06	1.90
Family member being infected	4.38	0.74	4.08	0.93	0.56	4.00	0.98	4.12	0.90	0.77
Being in public places	4.63	0.52	4.33	0.92	0.09	4.34	0.78	4.34	0.94	0.00
Using public transportation	4.88	0.35	4.80	0.52	0.41	4.79	0.59	4.81	0.49	0.23
Going for infant checkups	4.25	0.70	4.12	0.94	0.38	4.17	0.90	4.11	0.94	0.37
Health of infant	4.00	1.07	3.70	1.20	0.71	3.51	1.14	3.77	1.20	1.29
Raising the infant	3.13	1.12	2.80	1.14	0.78	2.60	1.05	2.90	1.15	1.54

for infant checkups, economic damage, using public transportation, and being in public spaces six months into the pandemic than at the beginning of the crisis. On the other hand, they reported higher anxiety over being infected with COVID-19 in the later phase. No differences were found in the level of anxiety over raising the infant or the infant's health between the two phases. In other words, other than greater concern about falling ill, which is realistic given the growing number of confirmed cases and thus the higher chance of actually being infected, most anxieties were somewhat reduced over time, while worries regarding the health or development of the infant were unchanged. The findings therefore indicate a degree of adaptation or habituation to the pandemic, reflected in a reduction of COVID-19-related anxiety levels in general, with concerns for the baby remaining stable.

Studies conducted over the past year show that the pandemic may raise the levels of stress, anxiety, and postpartum depression experienced by mothers as compared to normal times (e.g., Durankuş & Aksu, 2020; Lebel et al., 2020; Oskovi-Kaplan et al., 2020; Spinola et al., 2020; Zanardo et al., 2020). Our study suggests, for the first time, that many of the anxieties aroused in new mothers by coping with the crisis may undergo a moderate decline over time. A number of possible explanations might account for these findings. First, infant's age in the second phase of the study ranged from 9 to 18 months. According to Mahler (1972), during the first year after birth, the mother becomes more attuned to the infant's changing needs and learns her role as a parent. Over time, as the mother settles into her maternal role and the infant strives for more independence and separation from her, she is freer to attend to her own needs. Secondly, the decrease in the level of most COVID-19 related anxieties six months into the pandemic (save for the fear of being infected which, as noted above, was a realistic concern at that time) may be related to the process of adapting to parenting and the infant. These findings are consistent with findings from previous studies that have shown that first-time mothers tend to report a decrease in anxiety level and depressive

**Table 3**  
Means, standard deviations and t-tests for COVID-19-related anxieties by personal experience- phase 2.

	Phase 2					Familiar with infected person (n = 132)		Not familiar with infected person (n = 66)		t
	Quarantined (n = 76)		Not Quarantined (n = 122)		M	SD	M	SD		
Economic damage	3.14	1.20	3.09	1.29	0.30	3.08	1.20	3.18	1.36	0.56
Being infected	3.34	1.20	3.57	0.97	1.37	3.54	1.05	3.36	1.09	1.08
Family member being infected	4.00	1.02	4.23	0.87	1.69	4.20	0.88	4.03	1.02	1.18
Being in public places	3.54	1.17	3.49	1.08	0.29	3.53	1.07	3.47	1.20	0.36
Using public transportation	4.32	1.13	4.31	1.05	0.03	4.34	1.03	4.26	1.18	0.51
Going for infant checkups	3.09	1.19	3.04	1.08	0.31	3.03	1.16	3.12	1.06	0.53
Health of infant	3.53	1.33	3.87	1.14	1.92	3.67	1.27	3.88	1.11	1.15
Raising the infant	2.88	1.25	3.00	1.08	0.68	2.92	1.12	3.02	1.21	0.52

**Table 4**  
Means, Standard Deviations, and t-tests for the COVID-19-related anxieties by Study Phase.

	Phase 1		Phase 2		t
	M	SD	M	SD	
COVID-19 related-anxiety					
Economic damage	3.42	1.09	3.11	1.25	4.43***
Being infected	3.19	1.05	3.48	1.06	3.86***
Family member being infected	4.09	0.91	4.14	0.93	0.72
Being in public places	4.34	0.90	3.51	1.11	10.96***
Using public transportation	4.80	0.51	4.31	1.08	6.62***
Going for infant checkups	4.13	0.92	3.06	1.12	13.36***
Health of infant	3.71	1.19	3.74	1.22	0.33
Raising the infant	2.82	1.13	2.95	1.15	1.59

\*\*\* p < .001.

symptoms over time (Canário & Figueiredo, 2017; Dipietro et al., 2008; Don et al., 2014; Whisman et al., 2011).

Another important finding of this study is that anxieties over raising the infant and the baby's health did not change significantly between the two phases. It might be assumed that with the passage of time and decreased ambiguity about the pandemic, in parallel with the growth and development of the infant, this kind of anxiety would be reduced. The fact that this was not the case might be explained by the changing needs of the infant and relevant concerns, such as the closure of child care facilities which made it impossible for parents to return to work even when this was allowed. However, as the mothers in our sample were not asked about the specific reasons for their anxiety over the health and care of their infant, this explanation must await confirmation in future studies.

In addition, the level of COVID-19-related anxieties was related to certain sociodemographic variables. It was found here that the older the mother, the lower her anxiety over the health of the infant in



**Table 5**  
Pearson correlations between sociodemographic variables and COVID-19-related anxieties in the two study phases.

	Phase 1				Phase 2			
	Age	Education	Economic status	Physical health	Age	Education	Economic status	Physical health
<b>COVID-19-Related Anxiety:</b>								
Economic damage	−0.05	−0.23***	−0.38***	−0.06	0.05	−0.16*	−0.52***	−0.15*
Being infected	−0.08	0.05	−0.12	−0.12	−0.05	0.13	0.00	−0.04
Family member being infected	−0.07	0.20**	−0.01	−0.13	−0.10	0.25***	−0.00	0.00
Being in public places	−0.09	−0.04	−0.09	0.04	−0.00	0.03	−0.11	−0.13
Using public transportation	0.05	0.06	0.06	0.06	−0.07	0.05	−0.04	−0.07
Going for infant checkups	−0.08	0.10	−0.05	0.03	−0.15*	0.01	−0.13	−0.05
Health of infant	−0.17*	−0.01	−0.11	−0.11	−0.13	0.04	−0.11	−0.05
Raising the infant	0.02	0.90	−0.16*	−0.08	0.07	0.07	−0.23**	−0.25***

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

Phase 1 and going for infant checkups in Phase 2. These findings are consistent with previous studies showing that in the transition to parenthood, older mothers report lower levels of anxiety (McMahon et al., 2011; Saligheh et al., 2014) and are more psychologically mature (Camberis et al., 2014) than younger mothers.

Moreover, in both phases, higher education and higher economic status were associated with less anxiety over economic damage, more educated mothers reported higher anxiety over a family member being infected, and higher economic status was related to less anxiety over raising the infant. Finally, in Phase 2, better physical health was associated with lower anxiety over both economic damage and raising the infant. Previous studies have found that mothers characterized by a lower sociodemographic status are at greater risk of suffering from postpartum depression and distress (Chi et al., 2016; Goyal et al., 2010; Parsons et al., 2012). Therefore, during a global health crisis, which intensified these symptoms even more, mothers with less education and lower economic status may have suffered greater anxiety over their economic status and raising their infant, two of the most prominent concerns at this time, as well as greater concern for other family members.

#### Implications for practice

The findings may aid in the development of interventions for new mothers in times of crisis. Our study suggests the need to locate mothers during the postnatal period, inform them of potential difficulties, afford them professional guidance and counseling, and train health and medical professionals, including nurses, to assist new mothers during such a health emergency. The finding that the COVID-19-related anxieties of new mothers may decrease over time points to the urgency of making interventions available to women in the first months after the birth of their first child. Moreover, as no effect was found here for the mothers' personal experience of COVID-19, such as being quarantined or familiarity with someone who was infected, treatment and guidance programs for the first months of parenting during a crisis should be implemented for the entire population of new mothers.

Furthermore, as the study indicates that mothers experienced higher levels of COVID-19-related anxieties in the first months after the outbreak of the pandemic, nurses should pay particular attention to this period in order to help mothers deal with the double stress of adapting to new motherhood while coping with a health crisis. Services for mothers will have to be tailored to the unusual circumstances dictated by a pandemic, that is, provided either online or at home under certain restrictions. This will naturally require nurses to adopt new methods for practice.

#### Limitations

Certain limitations of the study should be noted. First, both study phases were conducted during the pandemic. We therefore have no

data regarding the mental health of the mothers prior to the outbreak of the virus, which might have affected the level of COVID-19-related anxieties reported here. Secondly, a convenience sample of Israeli mothers was employed in the study. This sample cannot be considered representative, and thus further studies examining psychological aspects of the current health crisis among mothers may contribute to the generalizability of the study findings. Finally, the present study focused only on mothers. Future studies might also examine the experience of fathers coping with COVID-19 along with the transition to parenthood.

#### Conclusions

The current study makes a unique and important contribution to the literature in this singular period in which the whole world is sharing in a common health crisis. Whereas most of the studies that have examined the consequences of the pandemic among parents were conducted at a single point in time or compared findings before and during the crisis, the current study was conducted at two points in time during the pandemic, at its outbreak and half a year later. The results offer new insights, suggesting the possibility of the adaptation over time of women coping with the transition to motherhood during a health crisis.

#### Data availability

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

#### Conflict of interest

Authors do not have any conflict of interest.

#### Funding

No funding has been obtained for the study.

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

#### Authors' statement

Both authors participated in the research and article preparation. Ofir Ben-Yaakov: Conceptualization, Data analyses planning, Formal analysis, Methodology, Writing - original draft.

Orit Taubman – Ben-Ari: Conceptualization, Data analyses planning, Methodology, Writing - review of further versions.

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