



The role of emotion regulation and maternal symptoms in Turkish mothers' caregiving helplessness during toddlerhood

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Abstract

To support mothers' positive parenting practices and designing effective early interventions in developing countries like Turkey, understanding the factors associated with feelings of helplessness in caregiving can play an important role. Therefore, we explored how mothers' depression and anxiety symptoms, and emotion regulation strategies of expressive suppression and cognitive reappraisal can contribute to caregiving helplessness during toddlerhood. We also examined whether depression and anxiety can mediate the relationship between emotion regulation strategies and caregiving helplessness. A sample of 552 healthy Turkish mothers ($M_{Age} = 32.11$) with 1–4 year old healthy children ($M_{Age} = 1.51$) replied to advertisements we shared face-to-face and filled out a pack of questionnaires including a demographic form, Emotion Regulation Questionnaire, Brief Symptom Inventory and Caregiving Helplessness Questionnaire. A series of path analysis were conducted to reveal the association between emotion regulation strategies (cognitive reappraisal and emotional suppression), depression and anxiety symptoms, and caregiving helplessness. After controlling for socio-economic status (SES), maternal anxiety but not maternal depression positively predicted caregiving helplessness. Unlike cognitive reappraisal, expressive suppression positively predicted caregiving helplessness. SES had an indirect effect (via suppression) on caregiving helplessness on caregiving helplessness. In toddlerhood, maternal anxiety rather than depression, and expressive suppression rather than cognitive reappraisal could be potential risk factors for caregiving helplessness. Thus, these can be critical target areas for effective early interventions.

Keywords Maternal caregiving helplessness · Expressive suppression, cognitive reappraisal · Emotion regulation · Maternal depression · Maternal anxiety

The caregiving system is a biologically based motivational system that encompasses parent's protective responses to a child (Bowlby, 1969, 1982; Solomon & George, 1996) and skills to evaluate child's developmental characteristics, that can facilitate attunement with a child's needs and a child's pace (George & Solomon, 1989). Although, raising a child and caregiving mostly bring positive feelings such as joy and satisfaction, the early years of childhood can be challenging for mothers. These years can be characterized as a transformational period for mothers due to various responsibilities and demands (i.e., managing daily errands, working outside), which can be associated with negative feelings about caregiving (George & Solomon, 2011). When a mother cannot turn her

attention to her child or fails to protect and provide care and comfort, she may question her parental skills and as a result can feel helpless (George & Solomon, 2011).

We know from existing research that helplessness due to challenges of parenting can potentially add up to parenting stress (Rutherford, 2012), disruptions in child-caregiver relationship (Solomon & George, 2006), and affect parenting practices and attachment relationship (George & Solomon, 2011). Further, George and Solomon (2008) stressed out both importance of mothers' dysregulated fear in early parent-child relationship and maternal emotion regulation strategies as sources of caregiving helplessness. Besides, emotion regulation strategies can potentially result in psychological symptoms.

Despite the importance of parental emotion regulation strategies, research on maternal psychopathology and parenting focused mostly on children's emotion regulation (Alink et al., 2009; Suveg et al., 2011) or parents' emotion socialization strategies (Breux et al., 2016; Cole & Tan, 2015). Therefore, examining the pattern of associations between

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mothers' emotion regulation strategies, mental health symptoms and caregiving helplessness (George & Solomon, 2011) not only enhances our understanding about one of the primary sources of parenting difficulties but also enables formation of preventive interventions.

Emotion Regulation Strategies, Maternal Mental Health and Caregiving

George and Solomon (2008) suggested that caregivers' individual differences in emotion regulation strategies (Gross, 1998a, 1998b, 1998c, 2002) can explain why some mothers experience greater difficulties in regulating negative emotions about parenting and suffer from caregiving helplessness and others not. Based on Gross (Gross, 1998a, 1998b, 1998c, 1999, 2007), a person can use expressive suppression and/or cognitive reappraisal strategies (Gross, 2002) in order to manage his/her emotions. Expressive suppression refers to inhibition of expressing emotional behavior (Gross, 2002), whereas cognitive reappraisal involves re-evaluation of the emotional situation to neutralize its negative emotional impact or increase its positive emotional influence (Gross, 2002). A person's tendency to engage in different emotion regulation strategies can contribute to maternal mental health symptoms (Coyne & Thompson, 2011) and shape the parent's reaction to children (Hoffman et al., 2006; Maliken & Katz, 2013).

As Gross and John (2003), suggested use of higher expressive suppression and lower, cognitive reappraisal can be associated with increased psychopathology. Research also indicated that difficulties in regulating emotions are associated with psychological problems. Specifically, they can contribute to depression and anxiety symptoms (Rottenberg et al., 2005; Campbell-Sills & Barlow, 2007). Despite, the literature supporting the link between emotion regulation and psychopathology (Aldao & Nolen-Hoeksema, 2012; John & Gross, 2004), to our knowledge, there is no study focusing on the specific relationship between emotion regulation strategies and negative feelings about caregiving during early childhood. Further, the DSM V (American Psychiatric Association, 2013) lists emotion regulation problems as important symptoms for certain psychological disorders such as borderline personality disorder and anti-social personality disorder. Improving emotion regulation strategies is a development area of various therapy approaches (i.e., Dialectical Behavior Therapy DBT: Linehan, 1993, 2015). Interventions focusing on emotion regulation difficulties yielded positive outcomes in the West (Woodberry & Popenoe, 2008) and in Turkey (Üstündağ-Budak & Özeke Kocabaş, 2019). Hence, it

can be suggested that improvement in emotion regulation strategies can potentially transform caregiving experiences of mothers positively. In line with this assumption, research also points out that helpless mothers can experience difficulties in managing their emotions (Solomon & George, 2011). Further, these emotional challenges can accompany negative appraisals affecting mother-toddler interactions.

Xiao et al. (2018) highlighted that the way parents comprehend and regulate their emotions can determine their situational appraisals, which can affect their parenting behaviors. They also demonstrated that adopting cognitive reappraisal strategy to regulate difficult emotions is associated with being more responsive as parents and respectful to a child's needs. On the other hand, parents with an expressive suppression strategy, are likely to keep their anger or sadness inside and avoid interacting with their children (Xiao et al., 2018), when their children frustrate them. This may lead to insensitivity in their relationships or helplessness in caregiving. Further, Lorber's (2012) study with mothers of toddlers noted that mothers do differ in preference of harsh discipline based on their cognitive reappraisal or expressive suppression use. Similarly, Kolhoff and colleagues (Kolhoff et al., 2016) demonstrated that cognitive reappraisal was lower in parents who use negative parenting disciplines. The impact of emotion regulation strategies is not limited to parenting practices (Lorber, 2012) but caregiving helplessness (Solomon & George, 2011) and psychological well-being of mothers can impact mother-child relationship.

Maternal Mental Health Symptoms and Caregiving Helplessness

Various studies indicated that maternal mental health symptoms do not only affect how mothers process their emotional experiences and their attributions about their children but also their parenting behaviors (Barnett, 1986; Feldman, 2007; Feldman et al., 2009) and feelings about parenting (Porter & Hsu, 2003; Feldman et al., 2009). For example, depressed mothers can experience negative maternal behaviors and difficulties in taking care of their children's needs (Lovejoy et al., 2000). In this regard, George and Solomon (2011) pointed out that mothers' depression is related to feelings of caregiving helplessness. Based on the existing literature, that reveals a positive association between maternal depression and being less responsive in caregiving (Hoffman & Drotar, 1991), one might expect that maternal symptoms can impair the caregiving system. A study conducted with mothers of 1-year-old infants showed that maternal mental health symptoms can disable the caregiving system (Huth-Bocks et al., 2016),

which may result in lasting socioemotional difficulties in children. Although the findings indicated a positive association between maternal depression and caregiving helplessness (George & Solomon, 2011; Huth-Bocks et al., 2016), whether maternal anxiety can contribute to helplessness feelings in caregiving is unknown. Still, research indicates a positive association between anxiety and helplessness (Alloy et al., 1990; Maier, 1993; Miller et al., 1975). So, we can infer that mothers with anxiety symptoms may also experience caregiving helplessness due to heightened distress and ineffective emotion regulation strategies. Yet how emotion regulation strategies can influence maternal psychopathology and caregiving helplessness was not addressed before. Therefore, we concentrated on identifying patterns of associations among emotion regulation strategies, psychopathology and mothers' caregiving helplessness in toddlerhood years.

The Present Study

We aimed to examine mothers' emotion regulation (cognitive reappraisal and expressive suppression) and mental health symptoms (depression and anxiety) in order to provide an understanding about underlying mechanisms of caregiving helplessness in parenting during toddlerhood period. We hypothesized that cognitive reappraisal would negatively, and expressive suppression would positively predict depression, anxiety symptoms and caregiving helplessness. We also hypothesized that maternal anxiety and depression would directly and positively predict caregiving helplessness. Finally, we explored whether low cognitive reappraisal and high expressive suppression would be associated with higher levels of caregiving helplessness mediated by anxiety and depression symptoms (For details of hypothesized paths, see Fig. 1).

Method

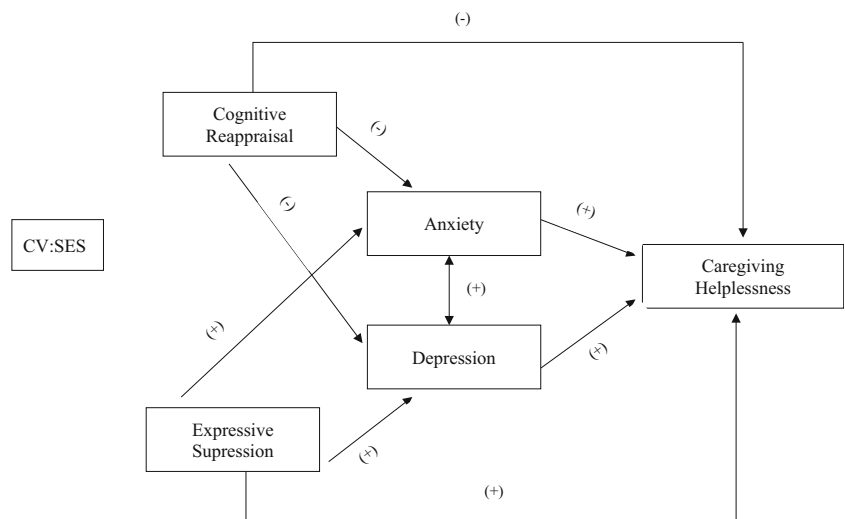
Participants

Five hundred and fifty-two biological mothers (*Mage* = 32.11 years, *SD* = 4.84) of toddlers (*Mage* = 1.51; *SD* = 0.66, *AgeRange* = 12–46 Months) from Istanbul, the biggest metropol in Turkey, participated in the study after receiving information about the study. The mothers indicated their monthly household income and percentages were as follows: Seventeen percent was below 1500 Turkish Lira (TL), 25% from 1501 TL to 3000 TL, 16% from 3001 TL to 5000 TL, 19% from 5001 TL to 7500 TL, and 23% was 7501TL or more. When we conducted the study the four-member household poverty-line was 5000TL (Turkish Statistical Institute, 2016). Fifty-nine percent of mothers had only one child, 30% had 2 children, 9% had 3 children, and 2% had more than 3 children. In the first two years following birth, 37% of the mothers defined themselves as sole caregivers and, 62% of the mothers shared child-care with a family member such as grandparents and/or any other relatives, a nonfamily member (i.e., friend or nanny), or received help from child-care services outside home. The remaining participants did not report their status as a caregiver (1%).

Procedure

After receiving approval from ethics board of the University Research and Ethics Committee, we recruited participants through distributing advertisements in preschools, medical centers, and pharmacies. Also undergraduate and graduate psychology students helped the recruitment in exchange of course credits. The data were collected in home visits. The mothers first signed the consent forms and then were asked to fill out questionnaire packs, while considering thoughts and

Fig. 1 Proposed path model.
 Note. CV:SES



feelings about their toddlers. They were reimbursed by a pack of diapers and a booklet on parent-child activities.

Measures

Demographic Form Mothers answered questions on their marital status, education level, household income, occupational status, age, and their child's/children's ages.

Emotion Regulation Strategies *Emotion Regulation Questionnaire* (ERQ; Gross & John, 2003) has 10 Likert-scale (1 = Strongly Disagree, 7 = Strongly Agree) items and two subscales measuring cognitive reappraisal (i.e., I control my emotions by changing the way I think about the situation) and expressive suppression (i.e., I control my emotions by not expressing them). The Turkish version of ERQ was adapted and psychometrically tested by Aka and Gençöz (2014). In the current study, internal consistency for the cognitive reappraisal was Cronbach's $\alpha = .88$, and for expressive suppression Cronbach's $\alpha = .82$.

Maternal Psychological Symptoms Mothers' psychological symptoms were assessed with the *Brief Symptom Inventory* (BSI; Derogotis, 1992) consisting of 53-items. Each item indicates a psychological complaint within the past 7 days in a 5-point Likert type scale (1 = *Never*, 5 = *Always*). Psychometric properties in a Turkish sample were tested by Sahin and Durak (1994). In the current study, anxiety and depression subscales demonstrated high internal consistency (Cronbach's $\alpha = .89$ and Cronbach's $\alpha = .88$, respectively).

Caregiving Helplessness The *Caregiving Helplessness Questionnaire* (CHQ; Solomon & George, 2011) is comprised of 24 items and has 5-point Likert scale (1 = *Not Characteristic at All*, 5 = *Very Characteristic*). CHQ has three subscales; mother helplessness (i.e., "When I am with my child, I often feel out of control"), mother and child frightened (i.e., "Sometimes my child acts as if he/she is afraid of me" and (i.e., "I am frightened of my child") and child as caregiver (i.e., "My child is good at tending to and caring for others") and a total score. In Turkish adaptation mother helplessness, and mother and mother child frightened revealed as one factor. In a Turkish sample, rather than a 3-factor solution, a 2-factor solution indicating two subscales of child as caregiver, and mother helplessness and mother-child frightened was identified (Arikan et al., (under review). Cronbach's alpha values of the Turkish version were as follows: For child as caregiver .62; for mother helplessness and mother-child frightened .87; and for the total .84 (Arikan et al., (under review). The total score of CHQ

was used in the present study and its Cronbach's α was .83.

Results

Data Analyses

To test our hypotheses and estimate the direct and indirect associations, we used a path analysis (MPlus 8; Muthén & Muthén, 2017). Before the analysis, univariate and multivariate outliers were handled according to Tabachnick and Fidell (2013). We used a bootstrapping method (Shrout & Bolger, 2002) with 1000 samples and a 95% confidence interval (CI) to test for indirect effects. For model fit criteria, Hu and Bentler (1999) and Kline (2016)'s recommendations were followed to identify the good model fit. The following indexes were used: Root mean square error of approximation (RMSEA; values of .08 or less indicate adequate fit), standardized root mean square residual (SRMR; values of .08 or less indicate adequate fit), and comparative fit index (CFI, which should be equal to or greater than .90; Fan et al., 1999).

Data Screening

There were no systematic missing values in the data. The single missing points in scales, which were below 5%, were filled by using imputation using the mean of the subscale. Following dealing with univariate outliers according to Tabachnick and Fidell (Tabachnick & Fidell, 1996)'s recommendations¹ The normal distribution of the variables was checked in terms of skewness, kurtosis values and histograms for each variable (See Table 1). Further analyses continued with 552 participants.

Descriptive Statistics, Pearson Correlations

Descriptive statistics and Pearson correlation coefficients are presented in Table 1. Caregiving helplessness was correlated with all the variables, but not with cognitive reappraisal. Since mothers' education level and monthly household income were positively and strongly associated ($r = .81, p < .001$) with each other, a composite score for SES was calculated, following z-score transformation of each variable. SES was controlled for all the variables in the path model.

¹ There were 6 multivariate outliers in the total of 552 participants. The data analysis was conducted with and without multivariate outliers. Since there was no significant difference in all the analyses, multivariate outliers were not eliminated.

Table 1 Pearson correlation coefficients and descriptive statistics

Variable	2	3	4	5	6	M	SD	Skewness/Standard Error	Kurtosis/Standard Error	Range (Min-Max)
1.Helplessness	.33**	.33**	<.01	.21**	-.16**	2.43	0.56	0.85 (0.10)	0.85 (0.20)	19–73
2.Depression		.84**	-.22**	.14**	-.22**	0.80	0.75	1.24 (0.10)	0.95 (0.20)	0–3.17
3.Anxiety			-.20**	.12**	-.16**	0.59	0.65	1.49 (0.10)	1.87 (0.20)	0–2.69
4.Cognitive reappraisal				.12**	<.01	5.25	1.01	-0.82 (0.10)	1.16 (0.20)	1.17–7.00
5. Expressive Suppression					-.25**	3.72	1.51	0.17 (0.10)	-0.74 (0.20)	1.00–7.00
6. SES						9.40	2.94	0.04 (0.11)	-1.11 (0.22)	

* $p < .05$, ** $p < .01$. The absolute value of a correlation is the magnitude of its effect (Cohen, 1992), and in light of Cohen’s guidelines, many of the above correlations are trivial or small in size

Path Model

Our findings revealed that the first model (Model 1) was statistically significant ($\chi^2 (2) = 10.35, p < .01$) and indicated a good fitness with a CFI value of .99, SRMR value of .03, and RMSEA value of .08. In order to test whether the model could be improved further, non-significant paths in the model were restricted phase by phase. In Model 1 the path between depression-caregiving helplessness was non-significant with highest p value and was removed to improve the model (Model 2). Model 2 was significant ($\chi^2 (1) = 10.69, p < .01$) with a CFI value of .95, SRMR value of .03, and the RMSEA value of .08 and suggested a good-fitting model as well. However, the Chi-square difference tests revealed that Model 2 was not superior to Model 1 ($\chi^2 (1) = , p < .01$). Therefore, Model 1 was accepted as the final model (See Fig. 2).

Direct and Indirect Effects

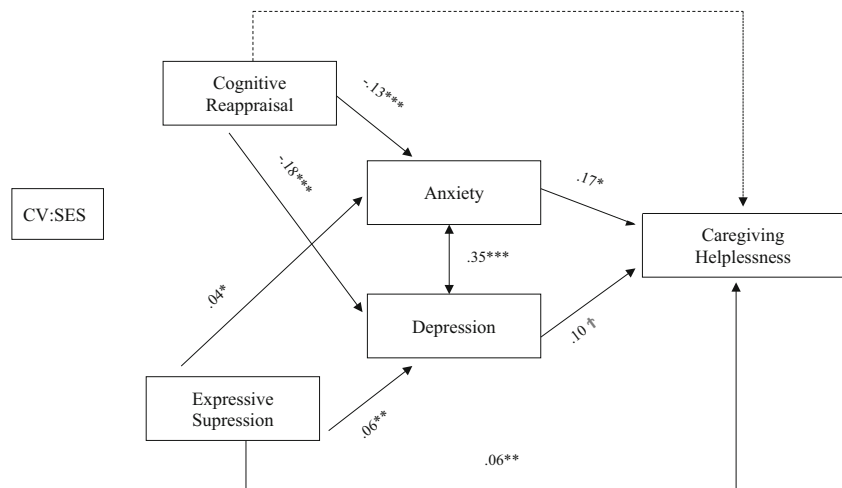
In path model, SES was significantly and negatively associated with expressive suppression ($\beta = -.28, p < .001$), but not

with cognitive reappraisal. Additionally, there was a negative and significant association between SES and caregiving helplessness ($\beta = -.01, p < .001$). SES was also negatively and significantly associated with depression ($\beta = -.04, p < .001$) and anxiety symptoms ($\beta = -.02, p < .001$).

Cognitive reappraisal negatively predicted maternal symptoms of depression and anxiety. Expressive suppression, on the other hand, positively predicted anxiety and depression symptoms (See Fig. 2). Further, expressive suppression positively predicted caregiving helplessness, suggesting that suppression results in higher levels of helplessness. Maternal anxiety symptoms positively predicted caregiving helplessness, whereas, maternal depression symptoms marginally predicted caregiving helplessness (See Fig. 2).

As we hypothesized, there was a significant indirect effect of expressive suppression via maternal anxiety on caregiving helplessness ($\beta = -.022, SE = -2.11, p < .05$), 95% CI [-0.06, -0.003] indicating that maternal anxiety mediated the relationship between suppression and caregiving helplessness. There was also a significant indirect effect of SES via suppression on caregiving helplessness, ($\beta = -.008, SE = -3.04, p < .01$), 95% CI [-0.016, 0.00], showing engaging emotional

Fig. 2 Final path model with unstandardized coefficients. Note: CV: Control variable. The unstandardized coefficients between control variable of SES and other variables were included in the results section. $p = .10$; * $p < 0.05$; ** $p < 0.01$; *** $p < .001$. The path between depression and caregiving helplessness was marginally significant



suppression mediates the association between low SES and high caregiving helplessness. Additionally, there was a marginal indirect effect of SES via maternal anxiety on caregiving helplessness ($\beta = .005$, $SE = -1.89$, $p = .059$), 95% CI [-0.013, 0.00].

Discussion

The present study has revealed the pattern of associations between maternal emotion regulation strategies of cognitive reappraisal and suppression, and mental health variables of depression and anxiety linked with the mother's caregiving helplessness. Our findings confirm our hypotheses that cognitive reappraisal negatively and expressive suppression positively predicted maternal depression and anxiety. As in Lorber's (2012) study with eighty-two mothers of toddlers, we found that mothers with high cognitive reappraisal were more likely to report less depression and anxiety. In this vein, a mother's use of cognitive reappraisal strategy can play a protective role since it can lower her stress, unlike emotional suppression (Lorber, 2012). Similar to our study of Hu et al. (2014), we found a positive relationship between expressive suppression and maternal psychological symptoms. Mothers of toddlers, who suppress their emotions, seem to be more likely to experience higher anxiety and depression symptoms. Individuals with suppressive strategies tend to avoid their problems (Mikulincer & Shaver, 2003) and may not be willing to face difficulties related to their psychological state. This can potentially worsen their symptoms, and further affect other domains of life such as childcare and their competency to solve problems in the context of parenting, which might be inferred from our findings.

We hypothesized that cognitive reappraisal would negatively predict, and expressive suppression would positively predict caregiving helplessness. Our hypotheses partially confirmed that expressive suppression positively predicted caregiving helplessness, but there was no relationship between cognitive reappraisal and caregiving helplessness. To our knowledge, there is no prior study depicting the association between emotion regulation strategies and caregiving helplessness. Nonetheless, literature indicates that using a suppression strategy could be a risk factor for unhealthy parent-child interactions (Le & Impett, 2016; Martini & Busseri, 2012; Kohlhoff et al., 2016). For example, Le and Impett (2016) found that parents of children between the ages of 4 and 12 years old, who suppressed their emotions, also reported lower responsiveness to their child's needs. Furthermore, mothers of two-year old children with suppressive tendencies may also suffer from further problems such as maternal maladjustment (Lorber et al., 2017), which in turn can result in helplessness in child-care.

We also hypothesized that both maternal anxiety and depression positively predict caregiving helplessness in toddlerhood. We demonstrated that when depression and anxiety were included together in our model, anxiety rather than depression contributed to the caregiving helplessness. Our finding is critical since prior research on psychological problems and parenting mostly emphasized the contribution of depression (Cohn et al., 1990; Elgar et al., 2007; Goodman & Brumley, 1990; Gordon et al., 1989; Lovejoy, 1991) and did not focus on anxiety related symptoms much, especially following the birth (Field, 2010). In addition, previously the relationship between psychological symptoms and caregiving helplessness concentrated on depression (Solomon & George, 2011). But from existing research, we know that mothers with higher levels of anxiety symptoms can suffer from negative cognitions and perceptions (Kaitz & Maytal, 2005; Arikan & Kumru, 2021), and lower parenting competence (Huizink et al., 2017; Misri et al., 2010), and decreased parental self-efficacy (Porter & Hsu, 2003; Feldman et al., 2009). Thus, the impact of anxiety can shape how mothers perceive events and emotionally process these events, which may lead to feelings of helplessness. In line with this, Turkish mothers of toddlers with high anxiety report lower mentalization capacity (Arikan & Kumru, 2021), which refers to reflecting on child's beliefs, desires, intentions, and attitudes (Slade et al., 2005). According to Buchheim and George (2011), this may result from the relationship between fear and anxiety. Maternal fear linked with high levels of anxiety and can be translated into excessive responses of helplessness. As a result, the caregiving system can be affected (Cassidy, 2008), and negative parental behaviors can occur in the future. Especially, when mothers are anxious and fearful, they are also more likely to feel prolonged helplessness, which may put them at risk of mental health problems. Thus, we know from the literature that maternal anxiety can play a critical role for inconsistent behaviors towards children (Barnett, 1986; Feldman, 2007; Feldman et al., 2009), rejection, over-control and lack of warmth (Ginsburg & Schlossberg, 2002).

Furthermore, in our study maternal anxiety did not only have a direct effect on caregiving helplessness but mediated the relationship between expressive suppression and caregiving helplessness. This suggests maternal anxiety can be a key element to understand the mechanism of emotion regulation and caregiving helplessness in toddlerhood. Emotion regulation may increase or reduce the impact of fear and anxiety (See review of Cisler et al., 2010) and in return can affect how mothers feel about caregiving. This can reflect on parenting domains (Gross, 1998a, 1998b, 1998c) and potentially influence parenting practices. For example, in the study of Martini and Busseri (2012), mothers, suppressing their anger, demonstrated lower mother-child relationship quality (Martini & Busseri, 2012) and increased symptoms of depression and anxiety. Based on our results, it is plausible that if prevention

programs target maternal anxiety and expressive suppression strategies, mothers' feelings of helplessness may reduce. Then this can improve maternal mental health and their caregiving experiences. As a result, this might have a positive influence on child development outcomes.

In addition to tested relationships SES, as a control variable, showed its impact in the model. Thus, SES positively predicted expressive suppression, but not cognitive reappraisal. Previously, research with low and middle-income mothers demonstrated a relationship between SES and mothers' emotion regulation (Martini et al., 2004). Thus, our findings expanded the existing research (Martini et al., 2004) by showing a specific relationship between SES and suppression. Moreover, we found that SES was negatively associated with depression and anxiety symptoms of mothers. Our finding supports a wide array of research, highlighting SES as a risk factor for both development (Newland et al., 2013) and the maintenance of parental psychopathology (Conger et al., 1992). Further, our finding was also consistent with a previous study with Turkish immigrant mothers in Germany (Fassbender & Leyendecker, 2018) demonstrating a positive association between low SES and lower psychological well-being.

SES negatively predicted caregiving helplessness. Unfortunately, to our knowledge, there is no prior research exploring that link between SES and caregiving helplessness. However, McLoyd (1998) pointed out that economic risks could have an impact on maternal beliefs about being a good caregiver and parenting characteristics. Previous studies mostly stressed the positive relationship between SES and parenting behaviors (See review of Zilberstein, 2016). However, research on how SES can contribute to maternal feelings about caregiving is lacking. Still, we can suggest that low SES may put mothers through more adversities about parenting (McLoyd, 1990) and affect their parenting beliefs (Pinderhughes et al., 2000). Therefore, it can be critical to emphasize the importance of SES on caregiving helplessness in toddlerhood, which might reflect parenting beliefs and competence.

Lastly, SES had an indirect effect on caregiving helplessness via suppression. Mothers coming from lower SES groups were more likely to use suppression as an emotion regulation strategy and feel helplessness in childcare. In line with our finding, previous research showed that low SES mothers were more likely to experience parenting stress (Hurt & Betancourt, 2017) and parenting stress was positively associated with caregiving helplessness (George & Solomon, 2011; Huth-Bocks et al., 2016). Further, a study conducted with mothers and their 12–48-month-old children has demonstrated that parenting stress is also related to atypical caregiving behaviors of mothers due to mothers' perceptions of parent-child interactions (Schechter et al., 2010). Thus, our findings suggest that low SES mothers, who use expressive suppression as an emotion regulation strategy, tend to experience caregiving helplessness, which may worsen their interaction with their children.

Our results also revealed that SES had a marginal indirect effect on caregiving helplessness via maternal anxiety. This finding is consistent with previous research indicating the poorer the parents' psychological wellbeing, the more chronic stressors they experience, especially if they belong to lower SES (Ceballo & McLoyd, 2002; Mistry et al., 2002). In this regard, it is plausible to predict a relationship between low SES, anxiety and caregiving helplessness.

Limitations and Future Directions

Firstly, all measures included in the study were obtained from mothers' self-report. The results only based on mother reports. Thus, input from other family members who contribute to child-care can present a more comprehensive picture about helpless feelings of mothers. Although, there is no direct measure that assesses parental helplessness observationally, it would be beneficial to include the actual maternal behavioral feedback loop within mother-child dyads. By means of observational methods maternal signals of negative feelings (i.e., boredom in the interaction, giving in while setting limits for the child) can be identified and their relations with caregiving helplessness can be enlightened. Secondly, the cross-sectional design of the study has its limitations. It does not examine long-term effects of the factors on caregiving helplessness. However, caregiving helplessness may change in time. For example, as child grows up aging, mother's experience can increase. Also, autonomy of children can contribute to mothers' positive experiences which may result in positive parenting experiences. Further, resilience and other maternal characteristics such as attachment and parental sense of competence and efficacy can impact caregiving helplessness. Therefore, future studies should address these issues in a developmental framework by using longitudinal designs.

In the literature, studies focusing on caregiving helplessness are limited. The current study is one of the first studies to investigate factors that can contribute to caregiving helplessness and the possible emotional mechanism of the caregiving helplessness in a non-western and relatively more collectivist culture. We know from existing research in Turkey that mothers can experience parental burnout (Arikan et al., 2020) and can engage in erroneous attributions about their children (Arikan et al., 2019). Thus, there could be culturally relevant factors such as family type, gender roles and co-parenting that can shape maternal feelings about caregiving. Investigating these factors in relation to challenges that mothers face while they raise children can help professionals assisting parents. Finally, future studies might also explore the protective role of other maternal characteristics such as perceived social support and co-parenting for caregiving helplessness as well as critical risk factors such as mothers' childhood traumas, which can be related to both maternal mental health and mother-child relationship (Main & Hesse, 1990).

Conclusion and Clinical Implications

Based on explanations of the maternal caregiving behavioral system (George & Solomon, 1989, 1996, 2008; Solomon & George, 1996, 2000), we offered a model to test how emotion regulation strategies and psychological symptoms can be associated with disruptions in the form of caregiving helplessness. Our study extended literature particularly with the findings on caregiving behaviors with an additional focus on anxiety and emotion regulation strategies.

Our study draws attention to the significant role of anxiety in maternal caregiving, which can potentially hinder mothers' positive parenting practices. This disruptive effect can take place indirectly via expressive suppression. Since maternal anxiety is critical for childhood outcomes such as emotional and behavioral problems (Newman et al., 2017a, 2017b) both toddlerhood intervention and prevention programs can aim to decrease maternal anxiety symptoms, maladaptive emotion regulation strategies in order to eliminate caregiving helplessness. This can promote sensitive mother-child relationship during early childhood. As in the West, there are early intervention programs focused on maternal sensitivity and improving early mother-toddler relationship in Turkey (Arikan & Kumru, 2021; Sümer et al., 2019). Additionally, understanding maternal characteristics associated with caregiving helplessness behaviors can inform clinicians working with mothers. Given the positive association between caregiving helplessness and infant socioemotional problems (Huth-Bocks et al., 2016), perceived child externalizing problems (George & Solomon, 2011) and toddlers' socioemotional problems (Keeling, 2013), it would be critical to provide early intervention programs concentrating on mothers' caregiving feelings as early as possible especially in low SES groups.

Consequently, with recent (COVID-19 pandemic) health challenges, one might expect that home-schooling and working at home can contribute to maternal caregiving helplessness.

Mothers may experience extreme levels of helplessness and they may have difficulties in regulating their own emotions effectively. Therefore, the present study can possibly have immediate implications for existing caregiving problems.

Data Availability The datasets generated during and/or analyzed during the current study are not publicly available due to statement in the ethics application, which includes sharing the data with only researchers, but are available from the corresponding author on reasonable request.

Declarations

Conflict of Interest Naz Töz (MA), Gizem Arikan (PhD) and A. Meltem Üstündağ-Budak (PhD) declare that they have no conflict of interest.

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