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Maternal childhood trauma and postpartum well-being in a Turkish sample: The path from attachment to alexithymia

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Keywords
childhood trauma, alexithymia, postpartum, depression, anxiety, self-eficacy, insecure attacment

Abstract

Childhood traumas predispose adult individuals to develop insecure attachment styles in close relationships and alexithymia features causing limitations in emotional capacity. For new mothers, postpartum is a period in itself that may increase mood problems such as depression and anxiety and mothers may question their efficacy in their maternal role. Thus, the purpose of the current research was to examine the relationship between maternal childhood trauma, mood problems, and self-efficacy via serial mediation of insecure attachment styles and alexithymia. A sample of postpartum Turkish mothers with healthy singleton infants (N = 63, M_{age} = 29.19) participated in the research. Mothers filled out the Childhood Trauma Questionnaire-Short Form, the Perceived Maternal Parenting Self-Efficacy Tool, CES-Depression Scale, the State-Trait Anxiety Inventory, the Experiences in Close Relationships Inventory-II, and the Toronto Alexithymia Scale during a home visit when the infants were one month old. In statistical analyses, the PROCESS macro for serial multiple mediation was applied. The results indicated that the relationship between maternal childhood trauma and postpartum depression and anxiety was serially mediated by anxious attachment and, in turn, alexithymia. On the other hand, the serial mediator roles of insecure attachment styles and alexithymia on the relationship between maternal childhood trauma and postpartum self-efficacy were not significant; rather, the direct effect of maternal childhood trauma on postpartum self-efficacy was significant. Findings suggest anxious, rather than avoidant, attachment, and alexithymia as intervention targets to buffer the effects of maternal childhood trauma on postpartum mood problems and self-efficacy, which may consequently prevent the intergenerational transmission of risk.

Anahtar kelimeler
çocukluk çağı travmaları, aleksitimi, postpartum, depresyon, kaygı, öz-yeterlik, güvensiz bağlanma

Öz

Türk bir anne örnekleminde çocukluk çağı travmaları ve postpartum iyilik hali: Bağlanmadan aleksitimiye giden yol

Çocukluk çağı travmaları, yetişkin bireylerin yakın ilişkilere yönelik güvensiz bağlanma stilleri geliştirmelerine neden olabilmekte ve bu bireyleri duygusal bir sınırlılığa neden olan aleksitimiya özelliklerine yatkın kılabilmektedir. Yeni anne olanlar için ise postpartum (doğum sonrası) dönemin kendisi depresyon, kaygı gibi duygudurum belirtilerinin yüksek olabildiği ve annelerin kendilerini annelik rolünde yeterlik açısından sorgulayabildikleri bir dönemdir. Buradan hareketle mevcut araştırmanın amacı, çocukluk çağı travmaları ve postpartum depresyon, kaygı ile öz-yeterlik arasındaki ilişkide güvensiz bağlanma stillerinin ve aleksitiminin seri aracı rolünü incelemektir. Araştırmaya ilk ve sağlıklı bebeğine sahip olmuş postpartum dönemdeki Türk anneler katılım sağlamıştır (N = 63, $Ort._{yaş}$ = 29.19). Bebekleri bir aylıkken yapılan ev ziyaretinde annelere Çocukluk Çağı Travmaları Ölçeği-Kısa Formu, Annelerin Ebeveynliğe İlişkin Algıladıkları Öz-Yeterlik Ölçeği, CES-Depresyon Ölçeği, Durumluk-Sürekli Kaygı Envanteri ve Yakın İlişkilerde Yaşantılar Envanteri-II verilmiştir. İstatistiksel analizlerde, seri aracı analizi için PROCESS makro kullanılmıştır. Bulgular, çocukluk çağı travmaları ve annenin postpartum dönemdeki depresyonu ile kaygısı arasındaki ilişkide, kaygılı bağlanmanın ve takibinde aleksitiminin seri aracı rolü olduğunu göstermiştir. Diğer yandan, çocukluk çağı travmaları ve annenin postpartum dönemdeki öz-yeterliği arasındaki ilişki üzerinde güvensiz bağlanma stillerinin ve aleksitiminin seri aracı rolleri anlamlı olmamıştır. Bunun yerine, annenin postpartum dönemdeki öz-yeterliği üzerinde çocukluk çağı travmalarının doğrudan etkisi anlamlı olmuştur. Bu bulgular, çocukluk çağı travmalarının annenin postpartum dönemdeki duygudurum belirtileri ve öz-yeterliği üzerindeki etkilerini ortadan kaldırmak için kaçınıcı yerine kaygılı bağlanmanın ve aleksitiminin müdahale hedefleri olmasını önermektedir. Böylelikle, riskin nesiller-arası aktarımı önlenebilir.

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The postpartum period may trigger vulnerability factors that pose a risk to maternal mood and self-efficacy. One such vulnerability factor is maternal childhood trauma, which can impede the emotional adjustment to motherhood (Gilbert et al., 2009; Sexton et al., 2015). Childhood trauma is a predisposing factor for insecure attachment and longitudinal problems in socio-emotional development (Luke & Banerjee, 2013), which carry their effects forward into adulthood via internal working models, creating a cognitive-emotional framework for representations of the self, others, and the world (Bowlby, 1969/1982, 1988).

From the beginning of pregnancy, the transition to motherhood is an ongoing process, and this process is in close relation to the maternal attachment system (Li et al., 2017). Research has indicated a link between maternal childhood trauma history and attachment representations with unresolved loss/trauma, an underlying risk factor for maternal psychopathology (Bailey et al., 2007). On the other hand, childhood trauma has also been related to global dimensions of adult attachment insecurity, specifically attachment anxiety and avoidance (Riggs, 2010). Attachment anxiety triggers beliefs about the self as unworthy of love, triggers preoccupations with abandonment, and hyperactivates the emotions (Mikulincer & Shaver, 2007). Attachment avoidance, on the other hand, is characterized by beliefs about others as unreliable and a dismissive approach to both emotions and attachment relationships (Mikulincer & Shaver, 2007). Research further supports that insecure attachment dimensions mediate the relationship between childhood trauma and dysfunctional psychological functioning (Muller et al., 2012). Specifically, maternal childhood trauma and insecure attachment styles were associated with higher depression and anxiety symptoms (Ikeda et al., 2014; Madigan et al., 2015; Schury et al., 2017). Past trauma and attachment insecurity also increase the risk of low maternal self-efficacy (Caldwell et al., 2011; Kohlhoff & Barnett, 2013).

Childhood trauma and attachment styles broadly shape the capacity for affect regulation (Montebarocci et al., 2004; Spangler & Zimmermann, 1999). The interaction effect between maternal trauma and difficulties with emotion regulation was found to predict blunted maternal cortisol reactivity, showing the cumulative effect of early trauma and the determinant role of emotion-related problems in the postpartum period (England-Mason et al., 2017). Scholars suggested that alexithymia might be one of the developmental difficulties of understanding and processing emotions, rooted in insufficient self- and interpersonal-regulation capacity in childhood (Schimmenti & Caretti, 2018; Taylor, 2010).

Previous research findings indicated that childhood trauma and insecure attachment styles were associated with alexithymia, which mediated the relationship between attachment insecurity and psychological symptoms (Besharat & Khajavi, 2013; Carpenter & Chung, 2011; Montebarocci et al., 2004; Wearden et al., 2003). In a recent study, patients with mood disorders and high levels of alexithymia reported more childhood trauma than patients with low alexithymia (Terock et al., 2016). Furthermore, the relationship between childhood trauma and anxiety disorder symptom severity was partially mediated via alexithymia (Zou et al., 2016). However, research on postpartum mood problems concerning alexithymia is scarce, although one study documented positive relationships among postpartum depression, postpartum anxiety, and alexithymia (Karukivi et al., 2015).

The present research aimed to investigate the relationship between maternal childhood trauma, mood problems, and self-efficacy via serial mediation of insecure attachment styles and alexithymia in a Turkish sample of postpartum mothers. Maternal childhood trauma was examined as global total scores of different types of abuse and neglect. The reasons for this approach were the low prevalence of some abuse and neglect subtypes in the present sample and the inconsistent research findings on the specific links of subtypes of abuse and neglect with insecure attachment styles (Riggs et al., 2011; Swanson & Mallinckrodt, 2001). Anxious and avoidant attachment styles are further relevant factors for compromised affect regulation such as hyperactivating and deactivating strategies (Koelen et al., 2015). Therefore, both might be closely associated with alexithymia, but for different reasons of associated affect regulation difficulties (Schimmenti & Caretti, 2018), and they may consequently affect maternal mood and self-efficacy in the postpartum period. Thus, the main research hypothesis was that maternal childhood trauma would be related to either anxious or avoidant attachment, which would be associated with an increase in alexithymia and, in turn with higher postpartum depression, postpartum anxiety, and lower postpartum self-efficacy.

METHODS

Participants

Postpartum mothers with healthy singleton infants (N = 63, M_{age} = 29.19) participated in the research. The mothers were all married and 55.6% had a university degree. The mean monthly income was 6659 Turkish Liras, representing the middle-to-high income for Turkey at the time of the data collection. Infants were born at term and were dominantly male (61.9%). The mean birth weight was 7.496 pounds. The mean age of the infants at the time of research was 35.86 days.

Data Collection Tools

The Childhood Trauma Questionnaire-Short Form (CTQ-SF) is a 28-item retrospective self-report trauma measure (Bernstein et al., 2003). Each item is rated on a 5-point Likert-type scale (1 = *never true* to

5 = *very often true*), and total scores range from 25 to 125 points. The reliability and validity study of the Turkish version of the CTQ was conducted and the results confirmed the reliability and validity of the Turkish CTQ-SF (Şar et al., 2012). In the present data set, Cronbach's alpha coefficient value of the Turkish CTQ-SF was .76.

The Perceived Maternal Parenting Self-Efficacy Tool (PMPS-E) comprises 20 items rated on a 4-point Likert-type scale (1 = *strongly disagree* to 4 = *strongly agree*) and total scores range from 20 to 80 (Barnes & Adamson-Macedo, 2007). The adaptation study of the Turkish version of the PMPS-E provided evidence for its reliability and validity (Kahya & Uluç, 2021). In the current data set, Cronbach's alpha coefficient value of the Turkish PSMPS-E was .94.

The CES-Depression Scale (CES-D) was developed to evaluate depression symptoms in community samples by the American National Mental Health Institute (Radloff, 1977). It consists of 20 items evaluated on a 4-point Likert-type scale (0 = *rarely/none of the time* to 3 = *most/all of the time*), with total scores ranging between 0 and 60. The adaptation study of the Turkish CES-D provided evidence of the reliability and validity of the Turkish version (Tatar & Saltukoglu, 2010). In this study data set, Cronbach's alpha coefficient value of the Turkish CES-D was .85.

The State-Trait Anxiety Inventory (STAI) comprises state and trait anxiety subscales, each of which includes 20 items evaluated on a 4-point Likert-type scale (1 = *almost never* to 4 = *almost always*) (Spielberger et al., 1970). Total scores range from 20 to 80. In the current study, only trait anxiety scores were included in the statistical analyses. The adaptation study demonstrated that the trait anxiety subscale of the Turkish STAI is a reliable and valid measurement tool (Öner & Le Compte, 1985). Cronbach's alpha coefficient value of the trait anxiety scores of the Turkish STAI was .61 in this study.

The Experiences in Close Relationships-Revised (ECR-R) includes 36 items measuring attachment anxiety and avoidance (Fraley et al., 2000). Items are evaluated on a 7-point Likert-type scale (1 = *strongly disagree* to 7 = *strongly agree*). Total scores of attachment anxiety and avoidance range from 18 to 126. The Turkish adaptation study indicated that the Turkish ECR-R is reliable and valid (Selçuk et al., 2005). Cronbach's alpha coefficient values of the attachment anxiety and avoidance scores of the Turkish ECR-R were .84 and .88, respectively, in the present data set.

The Toronto Alexithymia Scale (TAS-20) includes 20 items evaluated on a 5-point Likert type scale (1 = *strongly disagree* to 5 = *strongly agree*) (Bagby et al., 1994a, 1994b). The original scale was composed of three subscales, namely difficulty in identifying feelings, difficulty in describing feelings, and externally oriented thinking. Higher TAS-20 total scores reflect higher alexithymia features. The Turkish adaptation study was conducted by Güleç et al. (2009) and provided support for the reliability and validity of the Turkish version of TAS-20. In this study, Cronbach's alpha coefficient value of the Turkish TAS-20 was .79.

Procedure & Data Analysis

Ethical permission for this research was provided by the Hacettepe University Ethics Committee (No: 35853172/431-3728) and Ankara Public Health Directorate (No: 67350377/604.02). Most of the mothers were recruited from different primary care clinics. Primary care clinics were selected based on their physical distance to the corresponding author's location and the availability of a nurse volunteer to help with data collection. Also, a few of the mothers were reached out via snowball sampling procedure after announcing the research to acquaintances. At primary care clinics, mothers were first contacted through their nurses if they met the research inclusion criteria of having their first and healthy infant and being in the postpartum period of 4 to 6 weeks. After obtaining the informed consent of all mothers, all 4- to 6-week postpartum assessments were conducted at the volunteering mothers' homes. Each mother was visited at home by the corresponding author and a volunteer research assistant to collect data in the postpartum period. The corresponding author and the same volunteer research assistant completed all the postpartum assessments. During home visits, mothers first provided written consent, and then filled out questionnaires, and assistance was provided if needed.

In the current research, the PROCESS macro for SPSS for serial multiple mediations (Model 6) was applied. Model 6 allows the testing of direct and indirect effects of an independent variable (maternal trauma) on a dependent variable (postpartum depression, anxiety, or self-efficacy) while modeling a process in which the independent variable predicts mediator 1 (insecure attachment), which, in turn, predicts mediator 2 (alexithymia), concluding with the dependent variable (Hayes, 2017). In Model-1, maternal childhood trauma would be related to anxious attachment and in turn to alexithymia, which would be associated with postpartum depression. Model-2 replaced anxious attachment with avoidant attachment in the same postpartum depression model. The same models were repeated for postpartum anxiety and self-efficacy, resulting in the testing of six different models. The hypothesized associations are significant in process models if confidence intervals do not include zero (Hayes, 2017).

Table 1. Pearson Bivariate Correlations among Research Variables

	1	2	3	4	5	6	7
1.Mat Trau	-						
2.PP Dep	.33**	-					
3.PP Anx	.38**	.48***	-				
4.PP S-E	-.39**	-.11	-.15	-			
5.Anx Att	.27*	.36**	.62***	-.04	-		
6.Avoid Att	.08	.10	.37**	-.11	.56***	-	
7.Alexithy	.26*	.41**	.56***	-.19	.33**	.41**	-
Mean	31.16	16.37	41.83	64.43	3.14	2.33	45.29
(SD)	(4.84)	(8.89)	(9.16)	(8.38)	(0.90)	(0.93)	(8.76)

Note. Mat Trau = Maternal trauma; PP Dep = Postpartum depression; PP Anx = Postpartum anxiety; PP S-E = Postpartum self-efficacy; Anx Att = Anxious attachment; Avoid Att = Avoidant attachment; Alexithy = Alexithymia.
*p < .05; **p < .01; ***p < .001.

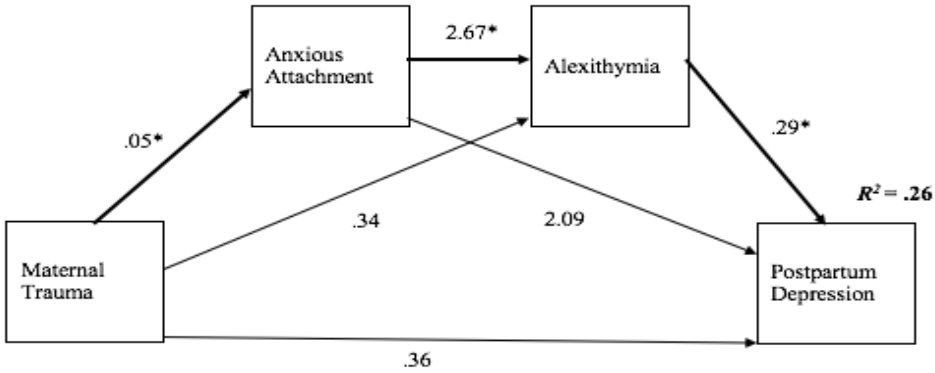

Figure 1. The Relationship between Maternal Childhood Trauma and Postpartum Depression via Serial Mediator Roles of Anxious Attachment and Alexithymia (Model-1). *p < .05; **p < .01; ***p < .001

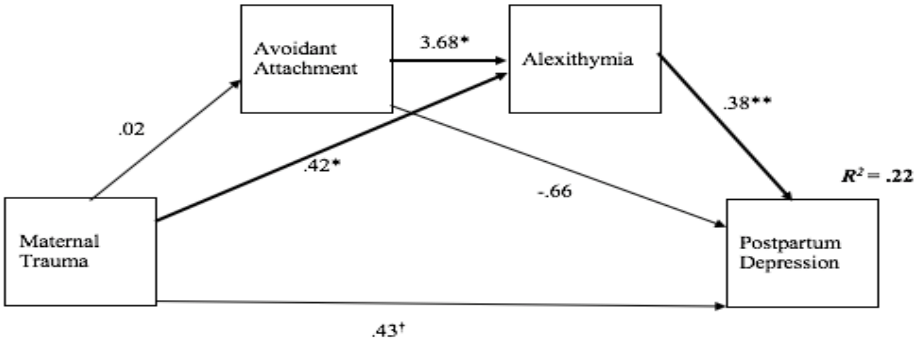

Figure 2. The Relationship between Maternal Childhood Trauma and Postpartum Depression via Serial Mediator Roles of Avoidant Attachment and Alexithymia (Model-2). *p < .05; **p < .01; ***p < .001; †p = .05

RESULTS

Pearson bivariate correlation analysis was run before testing the process models (see Table 1).

Process Model-1

Model-1 tested the serial mediation of anxious attachment and alexithymia on the relationship between maternal childhood trauma and postpartum depression. The results of Model-1 indicated significant serial mediator roles of anxious attachment and alexithymia on the relationship between maternal childhood trauma and postpartum depression (B = .04, SE = .03, 95% CI [.00, .13]; R^2 = .26, p < .001). In Model-1, maternal childhood trauma was positively associated with anxious attachment, which was in turn positively related to alexithymia, which subsequently predicted higher postpartum depression (see Figure 1). The direct effect of maternal childhood trauma on postpartum depression and the indirect effect of only anxious attachment or only alexithymia on the relationship between maternal childhood trauma and postpartum depression were not significant.

Process Model-2

Model-2 tested the serial mediation of avoidant attachment and alexithymia on the relationship between maternal childhood trauma and postpartum depression.

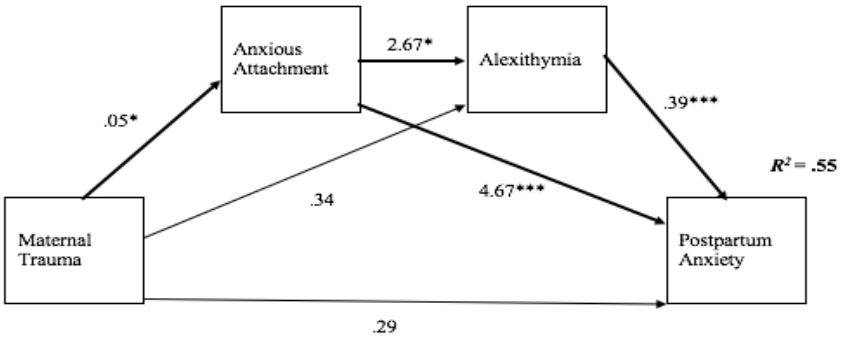

Figure 3. The Relationship between Maternal Childhood Trauma and Postpartum Anxiety via Serial Mediator Roles of Anxious Attachment and Alexithymia (Model-3). *p < .05; **p < .01; ***p < .001

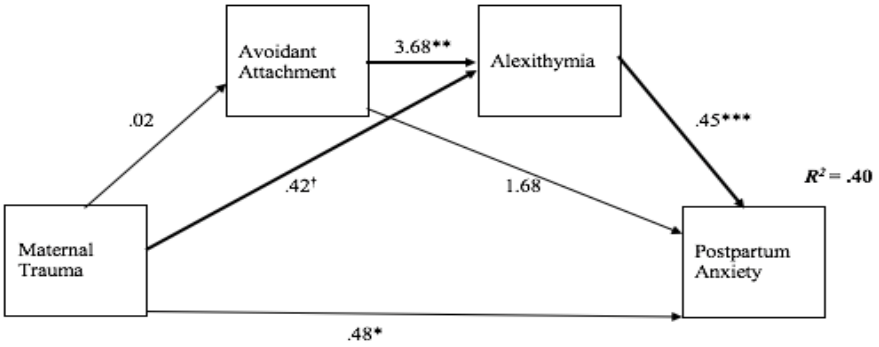

Figure 4. The Relationship between Maternal Childhood Trauma and Postpartum Anxiety via Serial Mediator Roles of Avoidant Attachment and Alexithymia (Model-4). *p < .05; **p < .01; ***p < .001; † p = .05

The results of Model-2 demonstrated that the hypothesized serial mediation was not significant, but the indirect effect of alexithymia on the association between maternal childhood trauma and postpartum depression accounting for avoidant attachment was significant (B = .16, SE = .11, 95% CI [.01, .42]; R^2 = .22, p < .01). In this regard, maternal childhood trauma was positively associated with alexithymia, which was in turn related to higher postpartum depression (see Figure 2). The direct effect of maternal childhood trauma on postpartum depression was a trend.

Process Model-3

Model-3 tested serial mediation of anxious attachment and alexithymia on the relationship between maternal childhood trauma and postpartum anxiety. The findings of Model-3 showed significant serial mediation (B = .05, SE = .03, 95% CI [.00, .13]; R^2 = .55, p < .001). In Model-3, maternal childhood trauma was positively associated with anxious attachment, which was positively related to alexithymia and in turn to higher postpartum anxiety (see Figure 3). The indirect effect of anxious attachment on the relationship between maternal childhood trauma and postpartum anxiety accounting for alexithymia was also significant (B = .24, SE = .12, 95% CI [.06, .50]). However, the direct effect of maternal childhood trauma on postpartum anxiety was not significant.

Process Model-4

Model-4 tested serial mediation of avoidant attachment and alexithymia on the link between maternal childhood trauma and postpartum anxiety. The results of Model-4 displayed that serial mediation was not significant, but the indirect effect of alexithymia on the relationship between maternal childhood trauma and postpartum anxiety controlling for avoidant attachment was significant (B = .19, SE = .10, 95% CI [.02, .41]; R^2 = .40, p < .001). Thus, maternal childhood trauma was positively associated with alexithymia, which was in turn related to higher postpartum anxiety (see Figure 4). The direct effect of maternal childhood trauma on postpartum anxiety was also significant (B = .48, SE = .20, 95% CI [.08, .87]).

Process Model-5 & Model-6

Model-5 & Model-6 tested serial mediation of anxious attachment and avoidant attachment, respectively, and alexithymia on the relationship between maternal childhood trauma and postpartum self-efficacy. Both Model-5 and Model-6 indicated that serial mediation and indirect effects of insecure attachment styles or alexithymia on postpartum self-efficacy were not significant. The results of Model-5 (R^2 = .16, p < .01) and Model-6 (R^2 = .16, p < .02) showed that only the direct effect of maternal childhood trauma on postpartum

self-efficacy was significant (*B* = -.66, SE = .22, 95% CI [-1.10, -0.22]; *B* = -.63, SE = .21, 95% CI [-1.06, -0.20], respectively). In both models, maternal childhood trauma predicted decrease in postpartum self-efficacy.

DISCUSSION

The current findings indicated that maternal childhood trauma increases the risk of postpartum depression and anxiety via anxious attachment and alexithymia. In the present research, avoidant attachment did not have a role in this process. Findings in the literature were in line with the present research, showing how postpartum mothers with early trauma experiences would be vulnerable to depression and anxiety if their attachment orientation is anxious and, in turn, if they have characteristics of alexithymia (Kajanoja et al., 2021; Montebarocci et al., 2004; Sexton et al., 2015). Anxious attachment style was a much more pronounced risk factor for postpartum mental health than avoidant attachment style, suggesting that anxious attachment style and postpartum mood problems may share a common etiology (Warfa et al., 2014). The current research suggests maternal childhood trauma as such a common factor. Since the direct effects of maternal childhood trauma on postpartum depression and anxiety were not significant when anxious attachment was accounted for in the models, we may argue that maternal trauma may indirectly predispose mothers to mental health problems in cases of anxious attachment patterns and problems with experiencing/labeling emotions (Ikeda et al., 2014). Other research also supported the mediator role of anxious attachment rather than avoidant attachment on the association between maternal maltreatment history and mood problems (Caldwell et al., 2011).

These findings are expected in the sense that trauma, anxious attachment, and mood problems may all involve negative representations of the self and inadequate emotion regulation in the demanding context of parenting (Mikulincer & Shaver, 2007). However, when avoidant attachment was included in the models, maternal trauma had either a marginally significant or a significant direct effect on postpartum depression and anxiety, respectively. This finding is a further implication of possible common variance between maternal childhood trauma and anxious attachment in the current research. The present findings are in line with previous literature showing connections between trauma, anxious attachment, alexithymia, and maternal internalizing symptoms (Aust et al., 2013; Kajanoja et al., 2021; Moe et al., 2018). In the meta-analysis of Zheng et al. (2020), attachment anxiety was a better predictor of depressive symptoms than avoidant attachment. Supportively, in a comprehensive cross-cultural study, postpartum women had higher depressive symptoms if their attachment styles were anxious rather than avoidant (Bifulco et al., 2004). Although the association between an avoidant attachment style and alexithymia seems to be stronger and emphasized in the literature (Kajanoja et al., 2021; see for a comprehensive review Mikulincer & Shaver, 2016), the literature findings also indicated small associations between the total scores of childhood trauma and avoidant attachment styles, similar to the present findings (Shahab et al., 2021; Şenkal & Işıklı, 2015). Therefore, we could argue that childhood trauma may bias the attachment system toward the anxious expectations in close relationships, and these anxious working models of the self and others might cause not only difficulty in emotional awareness as characteristics of avoidant individuals, but also a chaotic emotional architecture and so difficulty in differentiating and communicating specific feelings, characteristics of individuals with anxious attachment style (see Kajanoja et al., 2021; Mikulincer & Shaver, 2016).

The suggested serial mediation process from maternal childhood trauma to anxious attachment and in turn to alexithymia may set the stage for higher postpartum depression, as the direct effects of only anxious attachment or only alexithymia after controlling for each other were not significant. Kajanoja et al. (2021) suggested that depressive symptoms in the context of alexithymia features were high among individuals with childhood trauma experiences and attachment anxiety. Research also showed that the fearful attachment style, composed of mothers with both high attachment anxiety and avoidance, was the most prominent insecure attachment style among mothers diagnosed with postpartum depression (Aceti et al., 2012). Even if we have not examined such configurations of attachment anxiety and avoidance in our sample, we could argue that mothers with early trauma experiences and anxious attachment style would be more vulnerable to postpartum depression since they were more likely to depend on and preoccupation with others, but at the same time, lacking confidence in their self and others (Bianciardi et al., 2020). The activation of such relational expectations would result in the need for control, hypervigilance, anger, and anxiety about relationships (Aceti et al., 2012). The increased negative affect would be hard to regulate in the context of emotional confusion of alexithymia, and thus depressive symptoms would increase due to the cognitive deficits in emotional processing (Bagby et al., 2020). On the contrary, the serial mediation of anxious attachment and alexithymia from maternal trauma to postpartum anxiety and the indirect effect of anxious attachment on postpartum anxiety after controlling for alexithymia were both significant. These findings imply that anxious attachment may be a more powerful and proximal vulnerability factor for postpartum anxiety than postpartum depression, an avenue for future research. Thus, postpartum mothers with childhood trauma may become vulnerable to depression when they are fearful of rejection or abandonment in relationships and when they cannot identify, describe, or

represent their emotions. However, they may be prone to anxiety even if alexithymia features do not accompany the anxious attachment orientation.

The suggested serial mediation was not significant for compromising postpartum self-efficacy, but maternal childhood trauma predicted decreased postpartum self-efficacy beyond the mediator roles of insecure attachment styles and alexithymia. Childhood experiences may affect powerfully and directly maternal internal working models of caregiving (George & Solomon, 2008). Past research supported that maternal maltreatment history influenced parenting attitudes and behavior while lowering parental self-efficacy (Brazeau et al., 2018; Caldwell et al., 2011). The present measure of postpartum self-efficacy taps into issues of domain-specific self-efficacy like changing, feeding, and soothing the infant (Barnes & Adamson-Macedo, 2007). These abilities constitute the baseline to keep the infant alive and may develop with maternal intuition, and they might be profoundly hindered by maternal trauma—a powerful experience—rather than maternal insecure attachment styles and alexithymia. The findings of this research suggest that insecure attachment and alexithymia might be serial predictors of postpartum mood problems but not maternal beliefs of competence on task-related domains of parenting. Research on the relationships between maternal attachment styles, alexithymia, and self-efficacy is notably limited in the literature. Therefore, future research should continue addressing the distal and proximal developmental predictors of maternal self-efficacy, such as maternal childhood trauma, attachment, and alexithymia.

One of the major findings of this research indicated that anxious attachment with alexithymia rather than avoidant attachment explained the link between maternal childhood trauma and postpartum mood problems in this sample of Turkish mothers. Although the role of anxious attachment seems to be highlighted in the current research, cultural aspects should be considered in interpretations. The meta-analysis of van IJzendoorn and Bakermans-Kranenburg (1996) reported global distributions of attachment as 58% secure, 24% avoidant, and 18% anxious. Following research, however, indicated cross-cultural differences in these attachment distributions. For example, in a recent study, the anxious attachment was more common among East Asians with a collectivistic cultural orientation who depended on others more and were more fearful of rejection (Agishtein & Brumbaugh, 2013). The authors proposed that the relationship between culture and attachment was probably moderated by individualism/collectivism. Supportive of this, Turkish samples with a highlighted collectivist cultural background indicated a tendency for higher prevalence of anxious attachment and lower prevalence of avoidant attachment (Sümer, 2012). The mean score of maternal avoidant attachment (M = 2.33, SD = 0.93) was lower than the mean score of maternal anxious attachment (M = 3.14, SD = 0.90) in the current research. Therefore, the role of anxious attachment emphasized in the present findings may be specifically applicable to Turkish postpartum mothers. Future studies with similar research questions in Westernized contexts would clarify these issues further and contribute to the field. Furthermore, even though avoidant attachment was stated to be more dysfunctional for parenting in the Turkish context (Selçuk et al., 2010; Sümer & Kağıtçıbaşı, 2010), the current findings offer implications to be added to the available literature. Avoidant attachment, reflecting more dysfunctional representations of the other, may impact parenting behaviors negatively in domains of sensitivity and the representation of the child (Sümer et al., 2016). However, anxious attachment, reflecting dysfunctional representation of the self, may be a more pronounced vulnerability factor for maternal postpartum mental health in the context of maternal childhood trauma.

The current study has some limitations to be noted. All the measures were self-reported. Relatedly, this research did not find any significant effects of avoidant attachment, implying that avoidant attachment may need implicit assessments because of the defensive characteristics of avoidant adults (Warfa et al., 2014). Therefore, one could argue that the effects of avoidant attachment might be concealed because of the self-report nature of the attachment measurement and not using the Adult Attachment Interview, a gold standard to evaluate dismissive attachment representations (George et al., 1985). The research design was cross-sectional, and the nature of the presented findings necessitated a longitudinal design. Due to the inclusion criteria, the sample size was limited, although the bootstrap approach applied in the statistical analyses increased the power of the findings. Even so, the current results should be interpreted with caution, and future studies should replicate the tested models with larger and/or more disadvantaged samples of mothers. Furthermore, future research with a larger sample size can examine the presented associations in one comprehensive model to indicate a holistic picture of maternal mood problems and self-efficacy. Future research should also examine the presented cascade of relations with regard to different subtypes of maternal childhood trauma. As a final point, future work should examine how maternal childhood trauma in relation to the presented associations will longitudinally impact the mother-infant relationship beyond postpartum maternal mood problems and self-efficacy.

In conclusion, the current research highlighted the negative impact of maternal childhood trauma on postpartum depression, anxiety, and self-efficacy. The effects on postpartum depression and anxiety were mediated by anxious attachment and alexithymia, while maternal childhood trauma directly impacted postpartum self-efficacy. These findings corroborate that ma-

ternal childhood trauma and associated vulnerabilities may continue to influence the caregiving context (Schury et al., 2017). Therefore, routine screenings in prenatal clinics should entail the assessment of past trauma to support adaptation during the postpartum period. The need for early detection of mothers who are vulnerable due to childhood trauma is highlighted in this research for prevention and intervention. Furthermore, based on the clinical implications of the current research, anxious attachment and alexithymia should be the targets of intervention among postpartum mothers who report childhood trauma history to prevent postpartum depression and anxiety. On the other hand, directly trauma-informed interventions would be more efficient and facilitative for postpartum self-efficacy.

Investigating the present cascade of associations during the postpartum period is of particular significance since maternal childhood trauma poses risks of insecure attachment styles and emotional difficulties, which influence mother-infant interactions and future infant development (Field, 2018; Gilbert et al., 2009; Morelen et al., 2016; Pearson et al., 2012; Stein et al., 2009) and consequently increase the intergenerational transmission of risk as early as postpartum period (Schury et al., 2017). The current research findings may contribute to the literature as past research generally focused on postpartum depression and did not usually include a comprehensive and integrative evaluation of postpartum mental health (Rallis et al., 2014).

It is of note that not all mothers with childhood trauma history experience attachment disturbances (Huth-Bocks et al., 2014). Therefore, more research on resilience and protective factors for the maternal caregiving system is needed to build research-based prevention programs for vulnerable postpartum mothers with histories of childhood trauma. Reviews of the maternal childhood trauma literature emphasized that it was not the experience of trauma hindering the caregiving system but rather the psychological symptoms, as this research also showed, that were detrimental for infant development (Morelen et al., 2018). As a result, clinicians working with postpartum mothers should continuously assess postpartum anxiety and self-efficacy in addition to common assessments of postpartum depression (Field, 2018). The fact of maternal childhood trauma cannot be changed, but trauma-informed interventions and psychotherapy may help postpartum mothers with early trauma to remedy insecure attachment styles and emotion-related problems. Trauma-informed maternal prevention and intervention programs will consequently facilitate postpartum adaptation and reduce the intergenerational transmission of risk.

DECLARATIONS

Compliance with Ethical Standards This study was approved by Hacettepe University Ethics Committee (No: 35853172/431-3728) and Ankara Public Health Directorate (No: 67350377/604.02).

Conflicting of Interest The authors declare that there is no conflict of interest.

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