

Chapter 4

Weakened Resilience in Parenting Self-Efficacy in Pregnant Women who were Abused in Childhood: An Experimental Test

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ABSTRACT

This study tested experimentally whether the combination of a history of childhood abuse and confrontation with difficult infant temperament leads to negative changes in parenting self-efficacy. First-time pregnant women ($N = 243$) participated in the Adult Attachment Interview, which was used to assess the occurrence of abuse by parents in childhood, and completed a task asking them to respond to infant cries. Sixty of the 243 participants (25%) experienced childhood abuse, mostly physical or sexual. The task simulated infant temperamental difficulty by manipulating soothing success in order to reflect an easy-to-soothe (80% soothing success) and a difficult-to-soothe infant (20% soothing success). Both after baseline and each of the two stimulus series women assessed their parenting self-efficacy. Women who reported childhood abuse did not differ from women who reported no childhood abuse experiences in parenting self-efficacy at baseline or in response to the easy-to-soothe infant (relative to baseline), but decreased more in parenting self-efficacy following the difficult-to-soothe infant. These findings suggest that in response to infant temperamental difficulty, women who experienced childhood abuse may more easily lose confidence in their parenting abilities, which underlines the importance of preparing at-risk women for the possible challenges that come along with parenthood.

Parenting self-efficacy (PSE), defined as “the expectation caregivers hold about their ability to parent successfully” (Jones & Prinz, 2005, p. 342) is an important indicator of women’s adaptation to parenthood (Bandura, 1997; Williams et al., 1987). Before women have their child and actually build up experience, they already hold expectations about their parenting competence, which at that point may be based, among other sources, on their evaluations of own childhood experiences (Coleman & Karraker, 1997; Grusec, Hastings, & Mammone, 1994). Preliminary support for a negative relation between childhood rejection or abuse and PSE comes from a limited number of studies mostly indicative of small effects and mixed with regard to finding direct or indirect relations (Caldwell, Shaver, Li, & Minzenberg, 2011; Cole, Woolger, Power, & Smith, 1992; Leerkes & Crockenberg, 2002, 2006). More generally, research on the intergenerational transmission of risk suggests large individual differences between people as to whether their experience of childhood abuse affects outcomes, such as abusing one’s own children (e.g., Sroufe, Egeland, Carlson, & Collins, 2005). The individual differences may partly result from the combination of personal risk factors and stressors within the actual child rearing setting itself, such as difficult temperament of the newborn. However, the interaction between maternal and child characteristics in the adaptation to parenthood is difficult to study. Child characteristics are mostly measured by parents’ perceptions, which may be partly determined by parental self-perceptions as well as actual parenting behavior (Putnam, Sanson, & Rothbart, 2005; Verhage, Oosterman, & Schuengel, 2013b). To mitigate this problem, the current study used an experimental design with controlled child stimuli during pregnancy to test whether the combination of a history of childhood abuse and confrontation with difficult infant temperament would lead to more negative changes in PSE.

On the basis of interactions with parents or caregivers children develop working models about themselves and their relationships, which play an important role in the formation of social beliefs, expectations, and behaviors, including parenting beliefs, expectations, and behaviors (Bowlby, 1973; Coleman & Karraker, 1997; Grusec et al., 1994). Leerkes and Crockenberg (2002) found that primiparous women who rated their parents as accepting and warm in childhood had higher self-esteem and higher prenatal expectations of their parenting competence. In contrast, maternal reports of childhood abuse were found to be negatively linked to PSE (Caldwell et al., 2011; Cole et al., 1992; Schuetze & Das Eiden, 2005). These studies on the consequences of childhood abuse measured PSE at one time point in the postpartum period only, which makes it difficult to distinguish whether women exposed to childhood abuse have stable low scores of PSE over time or developed a lower sense of postpartum PSE in response to parenting challenges or failures.

Infant distress is one of the challenges to which parents are exposed in the transition to parenthood. Features of infant difficult temperament, such as frequent crying or low soothability, may be stressful to new parents. Several studies found a negative association between PSE and infant difficult temperament (e.g., Cutrona & Troutman, 1986; Leerkes & Crockenberg, 2002; Porter & Hsu, 2003; Teti & Gelfand, 1991), consistent with the theoretical assumptions of Bandura (1977, 1997) that failure experiences may lower people's sense of efficacy, whereas success experiences enhance self-efficacy. Results of a study by Verhage, Oosterman and Schuengel (2013a) revealed that women already adapted their sense of parenting competence to successes and failures in soothing a crying infant during pregnancy. Women who were abused as a child may be even more inclined to negatively adjust their PSE in response to failures in soothing, because infant distress and unsuccessful regulation of distress may be interpreted within a general framework of negative expectations and low self-esteem (Leerkes & Crockenberg, 2002, 2006). Alternatively, women who reported abuse experiences may have built up less trust in their abilities to handle demanding activities, because they missed positive parental modeling in childhood (Bandura, 1997; Leerkes & Crockenberg, 2002).

This study compared the adaptation of PSE of women with and without reported childhood abuse experiences to difficult infant behavior, specifically low soothability. An experimentally manipulated task previously described by Verhage and colleagues (2013a) was used, in which first-time pregnant women were asked to comfort an easy-to-soothe and a difficult-to-soothe infant, reflecting a success and a failure condition, respectively. A difficult soothing experience was assessed relative to an easy soothing experience to compare how women with or without abuse experiences would adjust their PSE in response to similar - low or high challenging- parenting situations. In addition, women's adjustment in PSE to an easy soothing experience was examined (relative to PSE at baseline). Besides average levels of women's adjustment of PSE, individual differences in this adjustment were also examined. It was hypothesized that childhood abuse experiences could partly explain the individual differences in women's adjustment of PSE in response to failures relative to successes in soothing a crying infant, in such a way that women who reported childhood abuse with (one of) their parent(s), would show stronger decreases in PSE compared to women who reported no childhood abuse experiences (Bandura, 1977, 1997; Leerkes & Crockenberg, 2006). Women who reported abuse were not expected to differently adjust their PSE to the easy-to-soothe infant in comparison to women without reported abuse experiences.

METHOD

Participants

Women who were pregnant with their first child were recruited by midwives, through a website, and by approaching visitors to a pregnancy fair for participation in a longitudinal cohort study on pregnancy and parenthood (Generations²) involving questionnaires from the first trimester of pregnancy to one year postpartum. From this longitudinal study, women were invited to participate in additional measurements (home visits) during pregnancy and the postpartum period if they had granted permission to be contacted for other measurements linked to the longitudinal study. Two subgroups were selected for the current report: an “at-risk” and a “normative” subgroup. For the at-risk subgroup, women were selected if they reported experiences with youth care or with a psychiatrist or psychologist before the age of 18 and for the normative subgroup, all women who lived in the vicinity of the research facility were approached. For the at-risk subgroup, first-time pregnant women were additionally approached from youth care facilities or institutions. Women were excluded for both subgroups if they had a prenatal diagnosis for a congenital abnormality of the fetus. Written informed consent was obtained from all participants. The study has been approved by the Medical Ethical committee of the VU Medical Centre (METc), registration number NL24319.029.08.

Corresponding to the aim of the current study, the normative and the at-risk subgroup were combined in order to obtain a larger group of women who reported childhood abuse experiences. A total of 243 women participated in this study, of whom 142 originated from the normative subgroup and 101 from the at-risk subgroup. Fifty-five women of the at-risk study reported youth care or contact with a psychiatrist or psychologist before the age of 18, and 46 women were involved with (youth) care facilities or residing in youth care institutions at the moment of inclusion (response rate for both approximately 50%). For the combined group, women’s mean age was 28.18 (range 15-41, SD = 5.80). With respect to educational attainment, 142 women (58%) had a bachelor or master’s degree, 91 women (38%) finished high school or vocational training and 10 women (4%) finished primary education. Two hundred and ten women (86%) had a partner, of whom 195 women were married or cohabiting. Thirty-three women (14%) were single. Most of the women (73%) of the current sample were Dutch as based on their parent’s country of birth, 27 women (11%) had a non-Dutch Western background and 39 women (16%) a non-Western background.

Procedure

Assessments took place at home. Women were on average 24.93 weeks pregnant ($SD = 4.64$; based on their due date) at the time of the home visit. A trained interviewer conducted the Adult Attachment Interview (George, Kaplan, & Main, 1984, 1985, 1996) and the Cry Response Task (Verhage et al., 2013a). The computerized Cry Response Task, programmed in E-prime, was developed to assess women's resilience of PSE in response to audio-taped infant crying sounds. Participants completed the 25-minute task on a laptop, which was placed in front of them on a table. As participants progressed through the task, instructions were provided on the screen.

The Cry Response Task (see Verhage et al., 2013a, for details) began with a 6-minute baseline with easy listening guitar-music and pictures of landscapes appearing on the screen. After the baseline, women were asked to assess their PSE. Then, women were instructed to listen to different infant cry sounds and choose one of four caregiving options to soothe the infant in response to each cry sound (e.g., pick the infant up, change diapers) or do nothing. The task consisted of two stimulus series each comprising ten different cry sounds. After each cry sound, "performance" feedback was provided to the women by means of a green or red smiley face, indicative of successful or unsuccessful soothing, respectively. In addition, the length of duration of the cries varied so that successful soothing was consistent with a cry sound duration of 15-20 seconds, and unsuccessful soothing with a cry sound duration of 30 seconds. The task was experimentally manipulated so that all women received 80% positive feedback with respect to the first ten cry sounds (baby 1 – "the easy-to-soothe infant") and 20% positive feedback with respect to the second ten cry sounds (baby 2 – "the difficult-to-soothe infant"). Women were asked to fill out their PSE and cry perception separately after listening to the cry sounds of baby 1 and after the cry sounds of baby 2 (cry perception ratings were not used in the current study). After finishing the Cry Response Task, women were thoroughly debriefed about the manipulation. The Medical Ethical Committee of the VU Medical Centre approved the procedures of this study.

Instruments

Parenting self-efficacy. During the Cry Response Task PSE was measured three times with a Pictographic Visual Analogue Scale (VAS), following a design by Kalichman and colleagues (2005). A Visual Analogue Scale is suitable to examine fine grained changes in PSE also in lower literacy populations (Kalichman et al., 2005). Women were asked to answer the following question on a colored bar: "How well do you expect to respond to infant crying in daily situations?". The bar changed from red at the left-hand side to green at the right hand side, with a thumbs down picture underneath the

red and a thumbs-up picture underneath the green side of the bar, indicating lower to higher expectations respectively. Answers were registered by E-prime on a scale from 0 to 100. In a previous study, a Visual Analogue Scale was found to be a valid measure for self-efficacy, especially for task-specific self-efficacy (Turner, de Leemput, Draaisma, Oosterveld, & ten Cate, 2008). In this study, PSE assessed with the VAS after the baseline was significantly associated with PSE as measured with the Self-Efficacy in the Nurturing Role questionnaire (SENR; Pedersen, Bryan, Huffman, & Del Carmen, 1989), which was filled out by women during pregnancy ($r(240) = .41, p < .001$).

Abuse experiences with parents in childhood. To examine the occurrence of abuse experiences with parents in childhood, the Dutch version of the Adult Attachment Interview (George et al., 1984, 1985, 1996) was used. This semi-structured interview contains 20 questions regarding people's qualifications of their early relationship with their caregivers, their early and current experiences with them, and how these experiences relate to their adult personality. In addition, the interview includes questions on loss, abuse, and other traumatic experiences. The questions on abuse experiences included several behaviorally focused sub-questions to obtain more clarity on the occurrence or incidents of maltreatment if necessary, as was suggested by Bailey, Moran, and Pederson (2007) and by Madigan, Vaillancourt, McKibbin, and Benoit (2012). All interviews were transcribed verbatim and rated with the Main and Goldwyn coding system (1994) by qualified coders. Although the main goal of the coding process is to acquire people's state of mind regarding attachment, for the current study we used only women's reports of abuse by their parents or caregivers. The system primarily refers to physical maltreatment and sexual abuse, but also includes bizarre punishments of the child, parents' attempts of suicide, or other frightening behaviors exhibited by parents in presence of the child (Main & Goldwyn, 1994), which were all considered as abuse in this study. Physical maltreatment is defined as any hitting by the caregiver leaving marks and repeated hitting that is hard and inappropriate or experienced by the child as particularly physically frightening. Any sexual experiences with parents or caregivers are defined as sexual abuse (Main & Goldwyn, 1994).

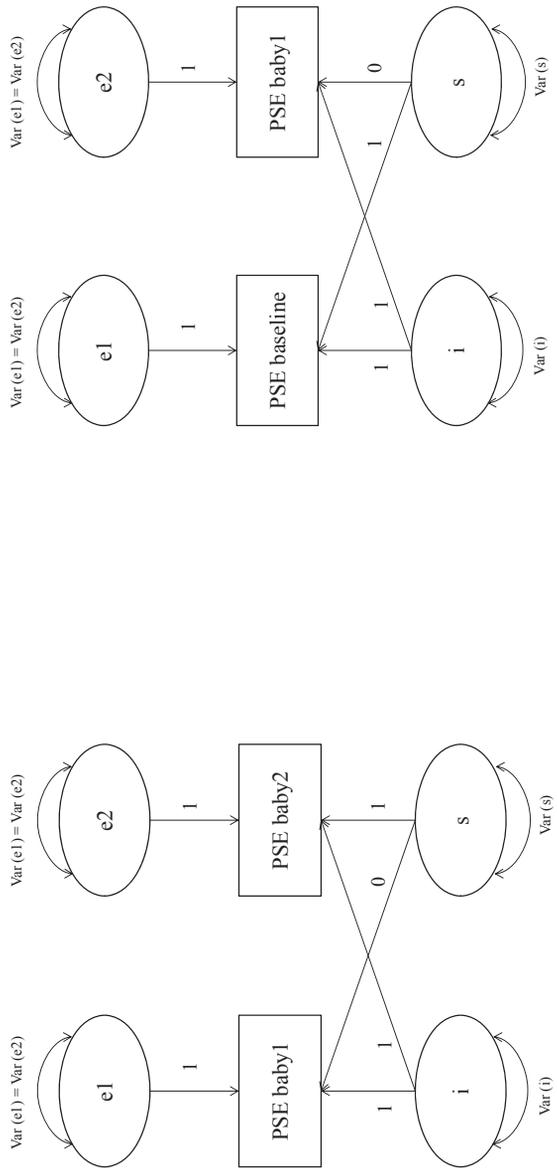
Data Analyses

Analyses for the current study were performed in SPSS version 20 and Mplus version 5.21 (Muthén & Muthén, 1998-2012). Preliminary analyses were performed in SPSS to examine the associations of abuse with demographic variables and the associations of abuse with PSE level at baseline, after exposure to the easy-to-soothe infant (baby1), and after exposure to the difficult to soothe infant (baby2).

Success and failure experiences are different processes that may underlie changes in PSE from baseline to the easy-to-soothe infant and from the easy-to-soothe infant to the difficult-to-soothe infant. Therefore, changes in PSE were examined in two separate latent growth curve models specified in Mplus from baseline to baby1 (model 1), and from baby1 to baby2 (model 2). With this technique, both mean changes in PSE and individual differences in changes of PSE were tested. Models were estimated using full information maximum likelihood.

First, linear growth curve models were fitted for model 1 and model 2 separately (see Figure 1). Model 1 was specified for the two observed variables PSE baseline and PSE baby1 (Figure 1a) and model 2 was specified for the two observed variables PSE baby1 and PSE baby2 (Figure 1b). The first latent variable in both models indicated the intercept and the second latent variable indicated the slope. As can be observed in Figure 1a, the time scores for the slope growth factor of model 1 were coded in reversed order, 1 for baseline PSE and 0 for PSE baby1, to deal with a decrease in variance with respect to PSE scores from baseline to baby1. Time scores for the slope growth factor of model 2 were coded as 0 for PSE baby1 and 1 for PSE baby2 respectively (Figure 1b). The intercept represents the systematic variation in PSE when the slope growth factor is set to a time score of 0, which is the baby1 condition for both models. The slopes for model 1 and 2 reflect the systematic part of increase in PSE, from baseline to baby1, and from baby 1 to baby 2 respectively (for interpretations of intercept and slope growth factors, see Muthén & Muthén, 2008). In the growth models, it was tested whether the intercept and slope variances, represented as $\text{var}(i)$ and $\text{var}(s)$ in Figure 1, were significantly different from 0. In order for the model to be identified for two time points, constraints were necessary. In both model 1 and 2, the residual variances ($\text{var}(e1)$ and $\text{var}(e2)$ in Figure 1) for the PSE measurement occasions were constrained to be equal. In addition, covariances between intercept and slope were constrained to be zero (and are therefore not included in Figure 1). This led to a just-identified model, in which three parameters were estimated: an intercept variance, a slope variance and one residual variance. To check whether demographic variables (age, educational level, single status and ethnicity) had to be included as time-invariant covariates, the intercept and slope of PSE were regressed on the covariates in separate models. The final models only included demographic covariates that were both associated to the independent variable (abuse) and to (one of the) dependent variables (intercept and/or slope of PSE).

Second, for those intercept and slope variances that were found to be significant in step 1, the time-invariant covariate “abuse” (reported abuse experiences with parents in childhood) was added to the model to test whether abuse explained part of the intercept and slope variances. The predictor abuse was coded as a dummy variable with 0 representing no abuse and 1 representing abuse.



1a. Model 1: Changes in PSE from baseline to baby1

1b. Model 2: Changes in PSE from baby1 to baby2

Figure 1. Fitted latent growth curve models for PSE during the Cry Response Task, PSE = parenting self-efficacy; Var = variance; i = intercept; s = slope; e_1 and e_2 = residuals.

RESULTS

Preliminary Analyses

Sixty participants (25%) reported childhood abuse with (one of) their parents or caregivers, of whom 45 participants reported physical abuse, 5 participants sexual abuse, 3 participants both physical and sexual abuse, and 7 participants other forms of abuse. With respect to demographic characteristics, women who reported abuse by (one of) their caregivers in childhood were significantly younger ($M = 26.22$, $SD = 6.51$) than women who reported no abuse ($M = 28.82$, $SD = 5.42$; $t(87.37) = 2.79$, $p = .006$). Women who reported childhood abuse also had a lower educational level ($M = 3.28$, $SD = 1.12$) than women who reported no childhood abuse ($M = 3.87$, $SD = 1.07$; $t(241) = 3.65$, $p < .001$). In addition, women who reported childhood abuse were more often single, $\chi^2(1) = 8.85$, $p = .003$, and more often had a non-Western background, $\chi^2(2) = 14.50$, $p < .001$, compared to women who did not report childhood abuse.

Table 1 presents descriptive statistics of PSE measurements during the Cry Response Task, for the entire sample and separately for the abuse and the no abuse group. Independent sample t -tests revealed that women who reported abuse experiences in childhood did not differ with respect to their mean PSE level at baseline or after the easy-to-soothe infant (baby1) from women who reported no abuse experiences, $t(241)$

Table 1. Descriptive Statistics for PSE Measurements During the Cry Response Task

	Entire sample				No abuse experiences				Abuse experiences			
	<i>n</i>	<i>M</i>	<i>Var</i>	Range	<i>n</i>	<i>M</i>	<i>Var</i>	Range	<i>n</i>	<i>M</i>	<i>Var</i>	Range
PSE baseline	243	69.17	236.16	14-100	183	69.54	242.23	25-100	60	68.08	219.84	14-94
PSE baby 1	243	71.67	188.02	19-100	183	71.79	159.76	38-100	60	71.33	278.23	19-98
PSE baby 2	243	59.04	303.56	5-100	183	60.40	279.49	7-100	60	54.90	359.75	5-93

$= 0.63$, $p = .526$ and $t(82.36) = 0.19$, $p = .824$ respectively. However, women from the abuse group scored lower on PSE after the difficult-to-soothe infant (baby2), $t(241) = 2.14$, $p = .033$. With respect to differences in variances between the abuse and the no abuse group, Levene's test revealed a significant difference for PSE baby1 only, $F = 5.09$, $p = .025$, indicating that women who reported abuse had more individual variability in PSE after listening to the easy-to-soothe infant compared to women with no reported abuse experiences. This effect was influenced by a few participants in the abuse group with low PSE baby1 values (see ranges for PSE baby1 separately for the abuse and the no abuse group in Table 1). For the analyses of the current study, non-winsorized

scores were used for PSE at baseline, PSE baby1 and PSE baby2. However, results were similar if outliers were winsorized, that is replaced by a raw score equivalent to a z-score of ± 3.29 .

Model 1: Changes in PSE from Baseline to Baby1

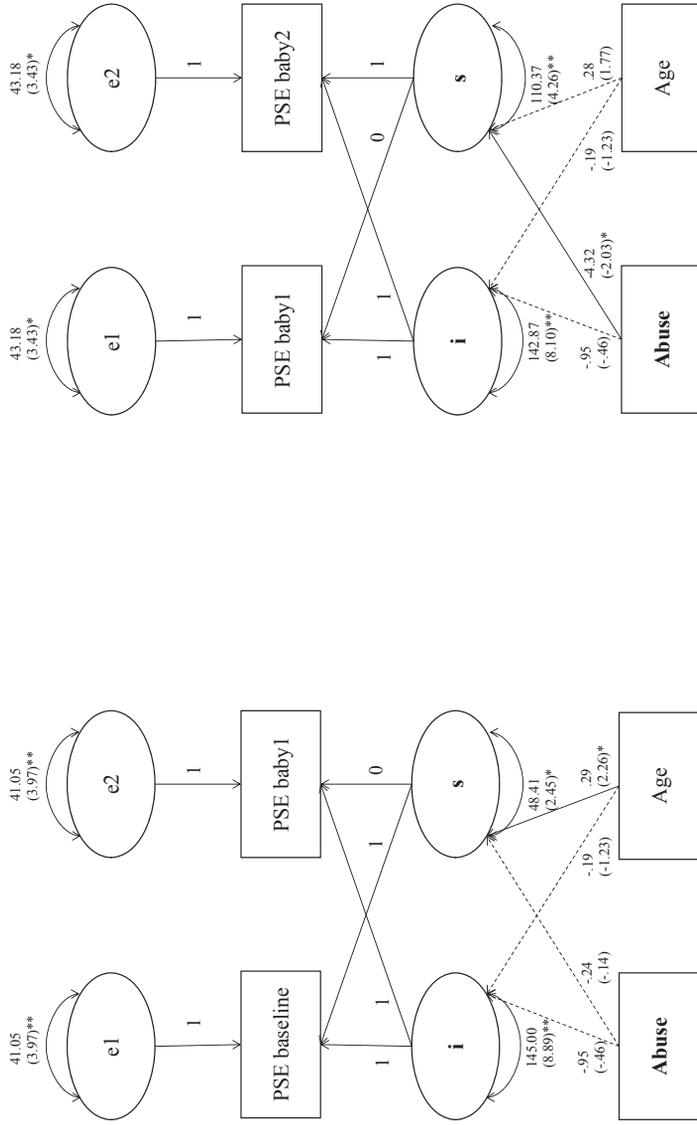
The intercept mean for PSE baby1 was 71.68, $SD = .88$, $p < .001$. With respect to growth, PSE increased on average (mean slope) from baseline to baby1³, $M = -2.50$, $SE = .74$, $p = .001$. In addition, there was significant variation around the intercept of PSE and significant variation around the slope of PSE, $s^2 = 144.50$, $SE = 16.35$, $p < .001$ and $s^2 = 47.94$, $SE = 20.00$, $p = .017$ respectively, providing support for individual differences around the average intercept level of PSE and individual differences with respect to changes in PSE from baseline to the easy-to-soothe infant. Separate models in which intercept and slope were regressed on each demographic variable revealed that only age was significantly associated with the slope of PSE (not to intercept PSE). PSE increased less in women who were older from baseline to baby1¹, $b = .29$, $SE = .13$, $p = .020$. Because age was also associated with abuse (see preliminary analyses), age was added to the final model as a covariate.

Next, effects of abuse on intercept and slope were added to examine whether reported abuse experiences could explain the significant variation in the intercept and slope of PSE. See Figure 2a for the results. Abuse was not significantly related to intercept¹, $b = -.95$, $SE = 2.07$, $p = .648$, or slope of PSE¹, $b = -.24$, $SE = 1.73$, $p = .889$. This showed that women who reported abuse did not differ on both PSE level and changes in PSE from baseline to the easy-to-soothe infant from women who did not report abuse.

Model 2: Changes in PSE from Baby1 to Baby2

A significant mean slope revealed that women decreased significantly in PSE after exposure to the difficult-to-soothe infant, $M = -12.63$, $SE = .92$, $p < .001$. The variances for both intercept and slope were also significant, $s^2 = 142.79$, $SE = 17.80$, $p < .001$ and $s^2 = 115.07$, $SE = 26.56$, $p < .001$ respectively, providing support for individual variability around PSE level and in changes of PSE from the easy-to-soothe infant to the difficult-to-soothe infant. Of the demographic variables again only age significantly predicted the slope of PSE (not the intercept), indicating that PSE decreased less in older women from baby1 to baby2, $b = .34$, $SE = .16$, $p = .029$. Therefore, age was again included as a covariate in the final model.

Given the significance of both intercept and slope variation, both the intercept and slope factors were regressed on abuse. The results are showed in Figure 2b. In this model, age was not significantly predicting the slope of PSE anymore, $b = .28$, $SE = .16$,



2a. Model 1: Predicting changes in PSE from baseline to baby1

2b. Model 2: Predicting changes in PSE from baby1 to baby2

Figure 2. Results of the fitted latent growth curve models for PSE during the Cry Response Task with abuse as a predictor. PSE = Parenting Self-Efficacy; e1 and e2 = residuals; i = intercept; s = slope. Standardized path coefficients (z-scores) are provided in parentheses. * $p < .05$. ** $p < .001$.

$p = .077$. The effect of abuse on the intercept of PSE was not significant $b = -.95$, $SE = 2.07$, $p = .648$, but the effect of abuse on the slope of PSE was significant, $b = -4.32$, $SE = 2.13$, $p = .042$. This indicated that women who reported childhood abuse with (one of) their caregivers decreased more in PSE after exposure to a difficult-to-soothe infant than women who reported no childhood abuse⁴.

DISCUSSION

This study examined whether women who reported childhood abuse adapted in less resilient ways to challenges to their sense of parenting competence due to infant difficult behavior than women who reported no childhood abuse. In line with our expectations, pregnant women who reported childhood abuse decreased more in PSE in response to the difficult-to-soothe infant (i.e., failure condition) than pregnant women who reported no abuse, whereas no differences were found in women's adjustment of PSE to the easy-to-soothe infant (i.e., success condition) or with respect to PSE at baseline. These results help to further guide the interpretation of associations found between parents' own childhood experiences and postpartum PSE in previous studies (e.g., Cole et al., 1992). Abused women's postpartum feelings of parenting competence may especially decrease when confronted with challenges and difficulties in parenting their own baby. In particular when exposed to infant difficult temperamental characteristics, such as low soothability, women who experienced childhood abuse may lose faith in themselves as parents more easily than women not reporting childhood abuse.

Results indicated that PSE –on average – increased if women mainly experienced successes, and decreased if women mainly experienced failures in soothing a crying infant (see also Verhage et al., 2013a), but individual differences in change of PSE across the experiment were observed. Childhood abuse experiences could partly explain individual differences related to changes in PSE in response to failures in soothing, not in response to successes in soothing. This result confirms Bandura's suggestion (1997) that it is potentially more difficult to manage demands or setbacks associated with early parenthood for people who missed effective models in childhood. The failure experiences associated to infant difficult temperament (i.e., low soothability), may particularly confirm pre-existing feelings of low self-worth and incompetence in women who experienced a more negative childhood (see also Crockenberg & Leerkes, 2003), which may lead to stronger decreases in PSE. Individual differences in women's adjustment of PSE to the difficult-to-soothe infant remained significant after taking into account abuse and age as predictors, which indicates that additional determinants may

be important as well in explaining variation in women's responses. Such determinants may include mood states or resolution of childhood trauma, which have both been found to be associated with women's general sense of parenting competence in previous studies (Leon, Jacobvitz, & Hazen, 2004; Teti & Gelfand, 1991). The individual differences in changes of PSE from baseline to the easy-to-soothe infant may also be explained by ceiling effects, which may have prevented more growth in PSE for women who started off with a high baseline level of expected parenting competence.

Several potential mechanisms may underlie the association between childhood abuse experiences and a greater vulnerability to difficult infant behaviors. Future research could for example be focused on different ways in which women with or without reported childhood abuse experiences process a demanding parenting task (Leerkes & Crockenberg, 2006). Women with a higher potential to abuse their children were for example more physiologically reactive in response to baby cries (Crowe & Zeskind, 1992), reported more hostile and negative feelings to the cries (Crouch, Skowronski, Milner, & Harris, 2008) or attributed caregiving failure to their own lack of personal control and to a heightened control in their children (Bugental, Blue, & Cruzcosa, 1989). Reactions to infant cries, as well as attributions of difficult infant behaviors may be linked to feelings of parenting efficacy (Donovan, Leavitt, & Walsh, 1990; Verhage et al., 2013a). In addition to task-specific features, other mediators or moderators, such as depressive symptoms, self-esteem, resolution of trauma, partner support, or women's current relationships with parents, could possibly explain the link between childhood abuse experiences and PSE as well (e.g., Caldwell et al., 2011; Leerkes & Crockenberg, 2002; Leon et al., 2004; Milan, Lewis, Ethier, Kershaw, & Ickovics, 2004).

This study showed that pregnant women who experienced abuse by attachment figures in childhood decreased more in their sense of parenting competence in response to failures to soothe a crying infant. Although at-risk women's differential responses to infant temperamental difficulty (i.e., low soothability) should still be replicated in more naturalistic studies, these findings do suggest that women who reported childhood abuse may be at increased risk to develop maladaptive parenting cognitions, which may, in turn, negatively affect parental sensitivity and child outcomes as well (Jones & Prinz, 2005). In line with results from this study, it is therefore important for health care practitioners to already start in pregnancy with informing at-risk women about the successes as well as failures that go hand-in-hand with early parenthood.

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ENDNOTES

- 3 The direction of the association needs to be reversed for interpretation, given the reversed time scores for the slope growth factor of Model 1.
- 4 As was observed in scatterplots, one participant who experienced childhood abuse decreased extremely in PSE from baby1 to baby2. By removal of this participant the effect of abuse on the slope of PSE was still significant, $b = -4.01$, $SE = 2.03$, $p = .049$.

