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Master's thesis

Experienced Rearing in Adolescence as Predictor of Well-Being and Relationship Quality Following the Transition to Parenthood

Name and initials: A. L. Klugmann

Student number: S4274245

E-mail address: a.l.klugmann@student.rug.nl

First assessor: Tina Kretschmer

Second assessor: Charlotte Vrijen

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Abstract

It is well documented that parents significantly influence their children's development during childhood and adolescence. However, very few studies examine how parenting impacts adult outcomes. I used prospective data to conduct a conceptual replication of a previous study that found recollections of supportive parenting to be a significant predictor of depressive symptoms, marital satisfaction, and parenting practices following the transition to parenthood (Huffhines et al., 2024). Using data from 449 participants of the TRAILS (TRacking Adolescents' Individual Lives Survey) and TRAILS NEXT sample, I examined whether parental warmth and rejection at age 11 predicted these outcomes in new parents. Parental rejection only significantly predicted depressive symptoms and negative marital interactions before controlling for baseline depression. Neither parental warmth or rejection significantly predicted parenting practices. These findings contrast with the replicated study and highlight the limitations of relying on retrospective data to understand long-term effects of parenting.

Keywords: Longitudinal study, parenting, depressive symptoms, marital satisfaction, perinatal period

Experienced Rearing in Adolescence as Predictor of Well-Being and Relationship Quality Following the Transition to Parenthood

Parents usually represent children's first and most important attachment figures and play a fundamental role in their development (Brumariu, 2015). Thus, children rely on their parents not only for basic needs such as food and safety but also for emotional support and social learning (Ranson & Urichuk, 2008). During childhood and adolescence, one of the most important ways parents support their children is by guiding their social development. Through everyday interactions, such as play, communication, and shared routines, parents teach children how to engage with others, interpret social cues, and build relationships (Engels et al., 2002). These experiences are the basis for the way children navigate friendships, collaborate with peers, and form meaningful connections throughout their life (Engels et al., 2002).

In addition to shaping social skills, parents are central to children's emotional development. The way parents respond to a child's distress, joy, or frustration helps children learn how to identify and manage their emotions (Spruit et al., 2020). For instance, if parents validate a child's feelings and help them regulate their emotions, the child learns that their feelings are understood and accepted (Brumariu, 2015). According to attachment theory, this kind of sensitive and responsive caregiving fosters a sense of security that supports emotional regulation and resilience (Bowlby, 1977).

These bonds to their parents not only help children function in the moment - they shape the foundations of emotional and social well-being across the lifespan. When children grow up with supportive parents, they are more likely to develop confidence, empathy, and emotional resilience (Ranson & Urichuk, 2008). Given the significance of these childhood experiences, it is likely that rearing practices continue to influence people into adulthood and affect how they relate to others, cope with stress, and take on new roles, such as becoming a

romantic partner or parent (Huffhines et al., 2024). However, most existing research focuses on outcomes during childhood and adolescence and relatively few studies have directly examined how early rearing experiences shape outcomes later in life (Vater & Schröder–Abé, 2015).

This gap forms the basis for the present study, which investigates whether rearing experiences during adolescence are associated with depressive symptoms, marital satisfaction, and parenting practices following the birth of the participants' first child. The perinatal period, which encompasses the pregnancy and the first year after childbirth, may be especially important to examine since becoming a parent marks a significant life transition and that time can be psychologically and socially challenging (Parade et al., 2014). Thus, the present study can offer insight into rearing experiences as potential risk or protective factors that influence how new parents navigate the demands of early parenthood.

Rearing Experiences and Depressive Symptoms

Early attachment experiences shape children's emotional and social development as well as their beliefs about themselves and others (Ranson & Urichuk, 2008). When parents are rejecting or emotionally unavailable, children can develop insecure attachments, which can increase the vulnerability to depression by undermining self-esteem and fostering a sense of helplessness (McLeod et al., 2007). Children with insecure caregiver attachments are also more likely to develop negative mental representations of themselves, significant others, and the relationship between them. These internal working models might play a significant role in the development of depression (Bosmans, 2009). According to Beck's cognitive triad model, people with depression tend to hold persistent and interrelated negative beliefs about the self (e.g., *"I am not good enough."*), the world (e.g., *"People will always let me down."*), and the future (e.g., *"Nothing will ever get better."*). These beliefs reinforce one another over time. A negative self-view can lead people to expect rejection or disappointment from others, which

in turn confirms their negative outlook on the world and hopelessness about the future. These thought patterns can shape how people interpret daily experiences and increase their vulnerability to depression (Pössel & Black, 2014). Negative patterns of thinking are influenced by early relational experiences, such as the quality of attachment to one's parents, and become deeply ingrained over time (Bosmans, 2009). Thus, internal working models formed through early interactions with parents can serve as a foundation for the development of the negative core beliefs described in Beck's cognitive model of depression, linking early rearing experiences to later vulnerability for depressive symptoms (Spruit et al., 2020).

In addition, children depend on their parents to learn emotion regulation strategies. Children can learn these strategies by observing their parents own approaches to emotion regulation and the general emotional climate of the family (Morris et al., 2007). Additionally, if parents coach their children through emotional situations by providing comfort, validating their emotions, and helping them solve problems, the parents teach children to develop their own strategies and provide the basis children need to learn to regulate their emotions by themselves (Morris et al., 2017). Poor emotion regulation is known to contribute to depressive symptoms as people with depression are more likely to use maladaptive emotion regulation strategies and less likely to use adaptive strategies (Joormann & Stanton, 2016). For example, people with depression are more likely to use rumination, which involves dwelling on negative thoughts and feelings without actively trying to change them or find solutions and is considered to be harmful for successful emotion regulation (Nolen-Hoeksema et al., 2008). Less frequent use of reappraisal, which is generally considered to reduce negative thinking and involves the alteration of one's emotional response to a situation, is associated with greater depression severity (Joormann & Gotlib, 2010). Additionally, depression is not only associated with less frequent but also less efficient use of effective emotion regulation (Joormann & Stanton, 2016). Thus, people who do not learn

emotion regulation from their parents are more likely to have difficulties managing their emotions later in life which can increase their vulnerability to developing depressive symptoms.

Rearing Experiences and Marital Satisfaction

Poor emotion regulation skills can also have a negative effect on romantic relationships (Morris et al., 2017). That is, people who have not learned to regulate their emotions are more likely to react impulsively during conflict, experience heightened emotional distress, or withdraw when relational challenges arise. They can struggle to communicate their needs effectively or to provide emotional support to their partners (Vater & Schröder–Abé, 2015). Conversely, they are less likely to engage in constructive problem-solving, maintain emotional closeness, or foster mutual trust and understanding within the relationship. These difficulties can negatively influence romantic relationships and can ultimately lower marital satisfaction (Vater & Schröder–Abé, 2015). Given the foundational role of early rearing experiences in shaping emotion regulation (Morris et al., 2007), long-term marital satisfaction is likely partly explained by the parenting that marital partners have experienced.

Negative internal working models, resulting from insecure attachment to ones parents, can also have a negative influence on romantic relationships later in life. When parents are unresponsive or rejecting, children can come to view themselves as unworthy of love and perceive others as unreliable or emotionally unavailable (Ranson & Urichuk, 2008). These beliefs and expectations of relationships with others can carry over into adult relationships and make it more difficult to trust partners, express needs, or manage conflict constructively (Vater & Schröder–Abé, 2015). As a result, people with insecure attachment histories can experience lower marital satisfaction, particularly after childbirth when high levels of stress

and emotional vulnerability can place an additional strain on romantic relationships (Parade et al., 2014).

Rearing Experiences and Parenting Practices

According to social learning theory, children learn behaviours by observing and imitating others, particularly close attachment figures such as parents (Bandura, 1971). Throughout childhood and adolescence, they observe how parents respond to emotions, show affection, handle conflict, and enforce discipline. These behaviours become part of an internalized script for how relationships work (De Carli et al., 2018). These learned patterns are not just surface-level habits, but form the basis of how people understand and enact caregiving roles later in life. Importantly, social learning includes both behavioural modelling and the internalization of emotional meaning (Bandura, 1971). For example, witnessing warmth paired with emotional availability teaches not only what to do, but also how to feel toward one's child. Over time, these early experiences can become automatic templates that are activated when people step into the parenting role themselves (Waters et al., 2018). Consistent with this, previous research has shown mild to moderate intergenerational continuity in both supportive and harsh parenting behaviours (Madden et al., 2015).

Adverse conditions - such as poor mental health, low relationship quality with a partner, or high parenting-related stress - can increase a parents reliance on automatic, learned parenting behaviours from childhood (Lomanowska et al., 2017). As a result, parents who experienced negative parenting might be especially likely to use harsh parenting practices when put in a stressful situation, such as the first month after childbirth (Parade et al., 2014). During this time, parents have to adjust to their new role and form initial patterns of interaction with their child. This makes it a particularly sensitive period during which early internalized caregiving models can re-emerge (Chamberlain et al., 2019).

The associations between rearing experiences and depressive symptoms, marital satisfaction, and parenting practices following the transition to parenthood have been examined in a recent study (Huffhines et al., 2024), using parents' recollections of their own rearing experiences. Recollection of supportive parenting was associated with better results on all outcomes (depression, quality of the relationship with the partner, and parenting) than when people recalled their parents being unsupportive.

The Present Study

Within the present study, I did a conceptual replication of that previous study by Huffhines et al. (2024) and tested to what extent rearing experiences in adolescence predict depressive symptoms, marital satisfaction, and parenting practices in new parents. However, instead of using retrospective reports, I examined whether associations can also be found in a longitudinal study design. While retrospective reports can be influenced by memory biases or current emotional states, the present study allows for a more objective and temporally accurate assessment of rearing experiences by measuring them during adolescence rather than in hindsight (Hardt & Rutter, 2004). I also controled for depressive symptoms at the baseline assessment to better isolate the specific contribution of rearing experiences to adult outcomes. This approach helps to ensure that observed associations are less likely to reflect pre-existing differences in mental health and more likely to capture the long-term impact of parenting experiences. Furthermore, the present study included mothers and fathers instead of just focusing on maternal experiences. This provides a more complete picture of intergenerational influences on family dynamics and captures potential differences or similarities between maternal and paternal pathways.

Method

Participants and Procedure

I used data from the TRacking Adolescents' Individual Lives Survey (TRAILS) and its next-generation spin-off study TRAILS NEXT. TRAILS is an ongoing longitudinal cohort study that was established in 2000 and initially included 2229 (51% female) children, recruited from participating primary schools in the northern Netherland. At the time of the T1 assessment, of which data was used in the present study, participants had a mean age of 11.1 years (Wiertsema et al., 2025). TRAILS NEXT was established in 2015 and focuses on TRAILS participants who have become parents. It includes measures of the child and both parents during pregnancy and the first year of the child's life. The participants of TRAILS receive regular mailings and are recruited to TRAILS NEXT if they indicate in the response that they or their partner are pregnant (Hartman et al., 2022). For the present study, I included the n = 449 TRAILS NEXT participants that had completed the 3 month postpartum assessment with their first child by spring 2025. At the time of that assessment, participants had a mean age of 30.22 years and 67% of them were female. Ethical approval for TRAILS and TRAILS NEXT was obtained from the Dutch national ethics committee or the medical ethics committee at the start and prior to each wave. All participants provided informed consent (Hartman et al., 2022).

Measures

Rearing Experiences (Age 11)

Rearing experiences were assessed through the EMBU's (Egna Minnen Betraffande Uppfostran) subscales emotional warmth (Cronbach's α = .87) and rejection (Cronbach's α = .83). The subscales consisted of 19 and 17 items respectively and were assessed on a scale of 1-4 with higher scores indicating higher warmth or rejection. Items included 'Do your parents try to help you and to be understanding when you feel unhappy?' for the warmth subscale and 'If something goes wrong at home, are you the one who usually gets blamed for it?' for the rejection subscale (Markus et al., 2003). Participants filled in the scales for both their mother

and father but since the scores for maternal and paternal warmth (r = .80) and maternal and paternal rejection (r = .70) were highly correlated, I combined them and used the total scores for parental warmth and rejection.

Depressive Symptoms (Three Months Post Birth)

Depressive symptoms were measured via the Depressive Impairment Scale for Parents (Cronbach's α = .82). The scale consisted of 11 items, which participants assessed on a 3-point Likert scale where higher scores represented a higher level of impairment due to depressive symptoms. Items included 'Does it [experiences of low mood or other depressive symptoms] affect how you get on with your child?' and 'Does it [experiences of low mood or other depressive symptoms] affect you leaving the house?' (Lewis et al., 2013). Both impairment in routine tasks or activities and impairment in family functioning were measured. As separate analyses for these subscales lead to almost exactly the same results as using the total score, I only reported the analysis based on the total score.

Marital Satisfaction (Three Months Post Birth)

The relationship with the participant's partner was assessed using the Negative Marital Interactions Scale (Cronbach's α = .77). The scale consisted of four items (e.g. ''[partner] makes too many demands of you'') rated on a 4-point scale, with higher scores indicating more negative interactions (Whisman et al., 2012).

Parenting Practices (Three Months Post Birth)

To assess parenting practices, the ALSPAC (Avon Longitudinal Study of Parents and Children) Positivity, Negativity questionnaire was used (Cronbach's α = .69) (Waylen & Stewart-Brown, 2009). The part focusing on parenting positivity was composed of 4 items measuring warmth and support, including 'Having this child makes me feel fulfilled.' Negative parenting was assessed with 4 items measuring control and rejection, including 'I would have preferred that we had not had this baby/ child when we did.' All items were

assessed on a 4-point scale with higher scores representing more positivity and more negativity respectively (Waylen & Stewart-Brown, 2010). I reported results separately for positive parenting and negative parenting, as the correlation between the two (r = -.48) was not high enough to justify combining them into a total score.

Covariates

As covariates I included the participants age three month after childbirth, their gender, and the socioeconomic status of their family of origin, which was assessed at age 11 and constructed by taking the mean of the family income and the standardized scores for the occupational and educational level of both parents (Cronbach's α=.84) (Wiertsema et al., 2025). Additionally, I controlled for baseline depressive symptoms which were measured using the Revised Child Anxiety and Depression Scale (Cronbach's α = .78). The scale consisted of 11 items which children rated on a scale of 0-3, with higher scores indicating more depressive symptoms. Items included 'I feel sad or empty' and 'I have no energy for things' (Chorpita et al., 2000).

Analytic Strategy

I used R studio version 2024.12.1.563 (Posit team, 2025) and conducted the main analysis with Lavaan version 0.6 – 19 (Rosseel, 2012). For missing cases I used the full information maximum likelihood feature which uses all available data points to estimate model parameters without discarding cases with partially missing data (Rosseel, 2012). This approach allowed me to retain a larger sample size and make the most of the available information. To test the plausibility of the assumption that the data was missing at random, I computed independent samples *t*-tests and chi-squared tests to compare missing and non-missing cases.

Parenting positivity and parental warmth were skewed to the right as most people reported higher levels of positivity and warmth. Parental rejection, depression, parenting

negativity, and negative marital interaction were skewed to the left with most people reporting low levels of the respective measures. To account for the non-normality of these variables, I used the robust maximum likelihood estimation (MLR) in Lavaan. This estimator provides standard errors and test statistics that are robust to violations of normality and offers more reliable parameter estimates when data deviate from normality (Rosseel, 2012).

I tested for multicollinearity between predictors in all final models and did not detect any problems as all VIF's (Variance Inflation Factors) were <1.5, which is well below the commonly accepted threshold of 5 (Thompson et al., 2017).

For the main analysis, I computed separate regression models for each outcome variable (depressive symptoms, marital satisfaction, and parenting practices) to assess their individual relations to rearing experiences. Unadjusted models with only rearing experiences as predictor and adjusted models which include all planned control variables, are reported separately to allow for a clearer interpretation of the unique contribution of rearing experiences before and after accounting for potential confounding factors. As planned, I included baseline depression as a covariate in the model predicting adult depressive symptoms. Since baseline depression was significantly correlated with both negative marital interactions (r = .24) and parenting negativity (r = .20), I also included it as a covariate in those models as part of an exploratory analysis. Given my sample size of n = 449, the present study should be able to detect small to medium effect sizes when choosing an alpha of 0.05 and a power of 0.80 (Cohen, 1992).

Lastly, I conducted sensitivity analyses to assess the robustness of my findings. Specifically, I re-estimated the models after excluding influential outliers, which were identified based on standardized residuals and Cook's distances (Tabachnick & Fidell, 2013). In addition, I performed a complete case analysis to examine whether missing data had any substantial impact on the results.

Results

Descriptive statistics and bivariate correlations are given in Table 1. Overall, participants reported high levels of experienced parental warmth at age 11 and parenting positivity three month postpartum. There was a relatively low occurrence of experienced parental rejection at age 11 and depression, negative marital interactions, and parenting negativity three month postpartum.

Parental rejection at age 11 was positively correlated with depressive symptoms and negative marital interactions three months postpartum. Parental warmth showed a significant but relatively weak association with more positive parenting and fewer negative marital interactions. Women and those from families with a lower socioeconomic status reported more positive parenting and less negative parenting. Participants who reported more depressive symptoms at age 11 also experienced less parental warmth and more parental rejection at the same age. Furthermore, depressive symptoms at age 11 were significantly and positively correlated with depressive symptoms, negative marital interactions, and parenting negativity three month postpartum.

Table 1

Descriptive Statistics and Bivariate Correlations

Variable	n	Mean	SD	Min	Max	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Parental warmth (age 11)	446	3.25	0.47	1.69	4.00	-								
2. Parental rejection (age11)	446	1.50	0.31	1.00	3.44	-.39***	-							
3. Depression (3 month post birth)	339	4.93	5.22	0.00	22.00	-.10	.17**	-						
4. Negative marital interactions (3 month post birth)	350	1.59	0.44	1.00	4.00	-.11*	.17**	.31***	-					
5. Parenting positivity (3 month post birth)	362	2.64	0.44	0.25	3.00	.13*	-.05	-.17**	-.21***	-				
6. Parenting negativity (3 month post birth)	362	0.49	0.34	0.00	2.25	-.05	.05	.28***	.31***	-.48***	-			
7. Age (3 month post birth)	389	30.22	2.68	22.03	35.14	-.00	.01	.08	-.03	-.16**	.00	-		
8. Gender	449	0.33	-	-	-	-.12**	.14**	.01	.08	-.15**	-.03	.18***	-	
9. Depressive symptoms (age 11)	446	0.63	0.31	0.00	1.80	-.15**	.41***	.18***	.24***	.01	.20***	-.05	.00	-
10. SES (age 11)	449	-0.05	0.80	-1.94	1.73	.15**	-.10	.01	.10	-.14*	.21***	.11*	.00	.03

Note. *p < .05, ** p < .01, *** p < .001. Gender was coded as 0 = female, 1 = male. SES = socioeconomic status of participants family of origin.

Attrition Analysis

The results of the attrition analysis can be found in Table 2. I computed independent-samples *t*-tests and chi-squared tests to determine whether there were any significant differences in age, gender, socioeconomic status, baseline depression, or experienced parental warmth and rejection between participants who dropped out of the study and those that remained. I tested for differences between missing and non-missing cases on all outcomes measured at the three month postpartum assessment since these had substantial amounts of missing data.

Age, gender, baseline depression, and parental rejection were not significantly associated with missingness on any tested variable. However, the test showed small but significant differences in experienced parental warmth between participants who did and did not have missing data on the measures of negative marital interactions and positive and negative parenting. Additionally, participants were significantly more likely to have missing data on all outcomes when their family of origin had a lower socioeconomic status.

Table 2

Comparisons Between Missing and Non-Missing Cases

	Depression	Neg. marital interactions	Positive and Negative Parenting
Age	t(69.39) = -0.65	t(45.95) = -0.72	t(32.17) = -1.98
	p = .515	p = .475	p = .056
Gender	$\chi^2(1) = 0.57$	$\chi^2(1) = 2.02$	$\chi^2(1) = 0.94$
	p = .449	p = .155	p = .332
SES	**t(451.63) = 10.66**	**t(478.13) = 10.42**	**t(499.50) = 10.56**
	p < .001	**p < .001**	**p < .001**
Baseline	t(185.14) = -0.19	t(170.25) = -0.82	t(138.2) = -0.40
Depression	p = .852	p = .412	p = .690
Parental	t(167.24) = 1.63	**t(137.80) = 2.17**	**t(114.79) = 2.07**
Warmth	p = .106	**p = .031**	**p = .041**

Parental Rejection	t(181.47) = 0.57 p = .566	t(155.21) = 0.32 p = .747	t(129.16) = 0.87 p = .384

Note. The table presents results of *t*-tests and chi-square tests comparing participants with missing versus non-missing data on the outcome variables: depression, negative marital interactions, and positive and negative parenting. SES = socioeconomic status of participants family of origin. Age = measured at the three month postpartum assessment.

Main Analysis

Parental warmth at age 11 did not significantly predict depressive symptoms at three month postpartum. Parental rejection was a significant predictor in the unadjusted (β = 0.150, p = .041) and adjusted models (β = 0.156, p = .038). However, once baseline levels of depressive symptoms were added as a covariate, parental rejection was no longer a significant predictor. Thus, out of all included variables, adult depressive symptoms were only predicted by depressive symptoms at age 11 (β = 0.142, p = .016). Overall, 5.2% of the total variance in depressive symptoms were predicted by the final model.

Similar patterns emerged for the model predicting negative marital interactions. Parental warmth was not a significant predictor but parental rejection was significant in both the unadjusted (β = 0.148, p = .014) and adjusted model (β = 0.152, p = .011). Thus, participants who reported higher levels of parental rejection at age 11 were also more likely to have negative marital interactions. However, the exploratory analysis revealed that parental rejection was no longer a significant predictor once baseline depressive symptoms were added, which were then the only significant predictor of negative marital interactions in the model (β = 0.197, p = .013). The final model predicted 8% of the total variance in negative marital interactions.

Neither parental warmth or parental rejection at age 11 significantly predicted positive parenting. However, age (β = -0.105, p = .039), gender (β = -0.122, p = .027), and the socioeconomic status of the participants family of origin (β = -0.162, p = .003) were

significant predictors, with younger participants, women, and those who grew up in families with a lower socioeconomic status showing slightly higher levels of positive parenting. The final model explained 7.8% of the total variance in positive parenting. I did not include a model adjusted for baseline depression as part of the exploratory analysis since positive parenting and baseline depressive symptoms showed no significant correlation ($r = .01$).

Finally, only the socioeconomic status of the participants family of origin ($\beta = 0.227$, $p < .001$) and baseline depressive symptoms ($\beta = 0.184$, $p < .001$) predicted negative parenting, with participants who grew up in families with a higher socioeconomic status and those with higher levels of depressive symptoms at age 11 showing more negative parenting. Parental warmth and rejection at age eleven were not significant predictors. Overall, 8.7% of the variance in negative parenting was explained by the final model.

Table 3

Rearing Experiences as Predictor of Depressive Symptoms, Negative Marital Interactions, Positive Parenting, and Negative Parenting

	Depressive Symptoms			Negative Marital Interactions			Positive Parenting		Negative Parenting		
	Unadj.	Adj.	Adj. (incl. dep.)	Unadj.	Adj.	Adj. (incl. dep.)	Unadj.	Adj.	Unadj.	Adj.	Adj. (incl. dep.)
Parental	-0.040	-0.041	-0.040	-0.051	-0.060	-0.061	0.137	0.141	-0.043	-0.067	-0.068
Warmth	(.559)	(.553)	(.551)	(.390)	(.317)	(.304)	(.075)	(.066)	(.481)	(.264)	(.254)
Parental	**0.150**	**0.156**	0.097	**0.148**	**0.152**	0.067	0.008	0.008	0.029	0.054	-0.024
Rejection	**(.041)**	**(.038)**	(.197)	**(.014)**	**(.011)**	(.359)	(.908)	(.896)	(.652)	(.377)	(.722)
Age		0.079	0.088		-0.071	-0.058		**-0.105**		-0.032	-0.021
		(.139)	(.097)		(.223)	(.314)		**(.039)**		(.585)	(.730)
Gender		-0.034	-0.030		0.067	0.074		**-0.122**		-0.042	-0.035
		(.553)	(.592)		(.209)	(.158)		**(.027)**		(.428)	(.497)
SES		0.025	0.003		0.121	0.094		**-0.162**		**0.250**	**0.227**
		(0.746)	(.965)		(.064)	(.163)		**(.003)**		**(<.001)**	**(<.001)**
Baseline			**0.142**			**0.197**					**0.184**
Depression			**(.016)**			**(.013)**					**(<.001)**
R^2	.029	.036	.052	.030	.050	.080	.018	.078	.004	.063	.087

Note. Each cell contains the standardized regression coefficient (β), followed by the p-value in parentheses. SES = socioeconomic status of participants family of origin. Age = measured at the three month post birth assessment. Unadj. = unadjusted model including only the main predictors. Adj. = adjusted model including main predictors and control variables.

Sensitivity Analyses

To assess the robustness of my findings, I performed a sensitivity analysis in which influential outliers - with standardized residuals smaller than -3.29 or lager that 3.29 and Cook's distances larger than 4/n (Tabachnick & Fidell, 2013) - were excluded from the regression models (Appendix A). I found and excluded two influential outliers for the models predicting depression and negative parenting and three influential outliers for the models predicting negative marital interactions and positive parenting. Excluding these outliers did not change the results in a meaningful way.

Additionally, I conducted a complete case analysis (Appendix B) using the subsample of participants without missing data (n = 305). Results remained largely unchanged. The only notable difference occurred in the model predicting positive parenting, where the effect of parental warmth increased slightly and became statistically significant (from $\beta = 0.141$, p = .066 to $\beta = 0.158$, p = .044).

Discussion

My aim was to test whether I could replicate previously found associations between retrospective reports of rearing experiences and depressive symptoms, marital satisfaction, and parenting practices following the transition to parenthood, using prospective data (Huffhines et al., 2024). Overall, I did not find strong support of my hypotheses. Parental rejection at age 11 was a significant predictor of depressive symptoms and negative marital interactions three month postpartum in the unadjusted and adjusted models but lost its significance once I included baseline depression as a covariate. Parental warmth at age 11 did not significantly predict any of the tested outcomes.

The finding that parental rejection at age 11 significantly predicted both depressive symptoms and negative marital interactions in adjusted models that included all control variables except baseline depression provides partial support for my hypotheses. Previous

studies on the relation between parenting and depression suggested that early caregiving experiences can shape later mental health through the development of internal working models and emotion regulation strategies (Bosmans, 2009; Morris et al., 2017). As outlined in the introduction, rejecting or emotionally unavailable parenting can lead to insecure attachment, which in turn undermines self-esteem and fosters a sense of helplessness (McLeod et al., 2007). These early experiences can contribute to the formation of negative internal working models that increase vulnerability to depression in line with Beck's cognitive triad model (Bosmans, 2009; Pössel & Black, 2014). Additionally, a lack of supportive emotional coaching and a negative emotional climate within the family can prevent children from learning to use adaptive regulation strategies and make them more likely to rely on maladaptive strategies such as rumination later in life (Joormann & Stanton, 2016; Morris et al., 2007). The use of such maladaptive strategies is associated with higher risk of depression (Joormann & Gotlib, 2010). Together, these mechanisms provide a plausible pathway by which early parental rejection could increase susceptibility to depressive symptoms which is in line with my findings in the adjusted model.

As for the link between parental rejection and marital satisfaction, previous studies suggest that poor emotion regulation skills can negatively affect romantic relationships. These difficulties with regulation are often rooted in early experiences of rejection by one's parents (Morris et al., 2007). In adulthood, they can resurface as impulsive reactions during conflict, difficulty expressing emotional needs, or withdrawal in times of stress. Such behaviours can have a negative effect on marital satisfaction (Morris et al., 2017; Vater & Schröder–Abé, 2015). In addition, early parental rejection can contribute to the development of insecure attachment and negative internal working models, such as the belief that others are unreliable or that one is unworthy of love (Ranson & Urichuk, 2008). These beliefs can interfere with trust, emotional intimacy, and constructive conflict resolution, especially

during transitional life phases like the transition to parenthood when couples often face increased demands and stress (Parade et al., 2014; Vater & Schröder–Abé, 2015). Thus, my finding that parental rejection predicts negative marital interactions in the adjusted model supports the notion that early experiences with rejecting parents can have a lasting impact on how individuals navigate close relationships in adulthood.

However, when baseline depressive symptoms were included as a covariate, the previously significant associations between parental rejection and both depressive symptoms and negative marital interactions were no longer evident. This could suggest that the effects of early rearing experiences are indirect and operate through internalizing symptoms that develop during childhood or adolescence and persist into adulthood (Blake et al., 2025). The present study supports the notion that parental rejection can increase vulnerability to depression during adolescence since I found a strong correlation between parental rejection at age 11 and depressive symptoms at the same age. Depressive symptoms, that first develop during adolescence, can then persist or re-emerge in adulthood, particularly during emotionally demanding life transitions like the shift to parenthood (Crockenberg & Leerkes, 2003). Depression can, in turn, negatively impact romantic relationships by impairing communication, reducing emotional responsiveness, and fostering negative attributions about one's partner (Vater & Schröder–Abé, 2015). Thus, it might be the long-term persistence of internalizing symptoms during childhood or adolescence that truly predict adult outcomes, which aligns with my findings of baseline depression as a significant predictor of depressive symptoms, negative marital interactions, and negative parenting. In line with that, it is possible that the impact of parental warmth and rejection is strongest during childhood and adolescence (Ranson & Urichuk, 2008) as these are developmental periods when parents play a central role in emotional development (Kendler et al., 2020). In adulthood, however, other influences such as romantic relationships and life stressors become more important (Dong et

al., 2022) and the effect of rearing experiences might only be notable through the pathway of persisting internalizing symptoms.

Regarding the control variables, I found that female participants reported higher levels of positive parenting. This is in line with expectations as previous studies found that women tend to engage more frequently in nurturing and responsive caregiving (Yaffe, 2023). Interestingly, younger participants also reported more positive parenting. While this contrasts with studies that typically associate young parental age with increased risk for negative parenting, such studies often focus on adolescent or very young parents (Barlow et al., 2011). In my sample, the youngest participants were 22 years old at the three-month postpartum assessment, which could mitigate that risk. A particularly unexpected finding was that participants from lower socioeconomic backgrounds reported both higher levels of positive parenting and lower levels of negative parenting which goes against most findings from previous research (Ayoub & Bachir, 2023). However, my findings might be interpreted in light of the Resilience Process Model of Parenting which describes that individuals from disadvantaged backgrounds can approach parenting as an opportunity to break cycles of hardship by showing adaptive coping strategies, agency, and compensatory warmth in their caregiving (Park, 2023). This resilience-based interpretation can help explain why people from families with a lower socioeconomic status try especially hard to be good parents for their children. Additionally, prior research has suggested that parents from families with a high socioeconomic status might adopt more controlling or performance-focused parenting styles, which could account for comparatively lower levels of positive parenting (Romm et al., 2020).

Overall, it can be concluded that I did not find rearing experiences to be strong, direct predictors of depressive symptoms, marital satisfaction, or parenting practices following the transition to parenthood. This contrasts with the replicated study which found that mothers

who remembered their parents being supportive generally had lower levels of depressive symptoms, higher relationship quality and showed more sensitivity towards their infant during the perinatal period (Huffhines et al., 2024). These differences in findings could be because I used prospective data collected in childhood as opposed to relying on retrospective self-reports. Retrospective reports are often shaped by a person's current emotional state, relationship dynamics, and subjective interpretations, which can introduce bias (Hardt & Rutter, 2004). For example, a person who currently experiences depressive symptoms, will likely view their childhood experiences through a more negative lens when asked for recollections of their rearing experiences. In contrast, prospective data is less vulnerable to such biases and provides a more objective account of rearing experiences at the time they occurred (Hardt & Rutter, 2004). Thus, the discrepancies in findings could reflect a difference in what each type of data captures: retrospective reports offer insight into how individuals currently interpret and make sense of their early experiences, while prospective data provides a record of those experiences as they were observed at the time, which likely offers a more stable basis for identifying long-term effects (Hardt & Rutter, 2004).

Strengths, Limitations, and Future Directions

The present research contributes to the field as I used prospective data and assessed rearing experiences at the time they happened, which leads to a more objective examination of the link between rearing experiences and adult outcomes compared to studies relying on recollections of parenting (Hardt & Rutter, 2004). Additionally, I included both mothers and fathers in my analysis, which offers a more comprehensive perspective and extends prior research that has predominantly focused on mothers, particularly in the context of the perinatal period (Huffhines et al., 2024). Finally, by controlling for baseline depressive symptoms, I was able to better isolate the unique contribution of early rearing experiences to

adult outcomes which reduces the risk that findings mainly reflect pre-existing differences in mental health.

However, all included measures were based on self-report which means that responses might have been influenced by social desirability bias, with participants possibly underreporting negative behaviours or experiences in order to present themselves in a more favourable light (Morsbach & Prinz, 2006). Moreover, individuals can lack full insight into their own behaviours or internal processes, which makes it difficult to accurately assess complex constructs, and responses can be influenced by the participants current mood. Future studies could benefit from including observational assessments or reports from other informants to improve measurement accuracy (Morsbach & Prinz, 2006).

Additionally, rearing experiences were measured at age 11 even though previous research shows that experiences in early childhood are more important for the development of attachment models and the child's emotional and social skills (Brumariu, 2015). Therefore, it is possible that early rearing experiences are stronger predictors of adult outcomes than those measured in the present study. Future research could explore this possibility.

Another limitation of the present study is that I did not account for potential moderating variables that might influence the direction or strength of associations between early rearing experiences and adult outcomes. It is possible that the effects differ across subgroups. For example, some peoples might replicate the parenting they received in childhood, leading to similar rearing patterns in the next generation, while others could consciously attempt to break these patterns and adopt different parenting approaches (Lomanowska et al., 2017; Stack et al., 2015). If such opposing tendencies exist within the sample, they can cancel each other out in the overall analysis and potentially obscure meaningful associations (Fairchild & MacKinnon, 2009). Future research should examine

whether the effects are moderated by individual coping strategies, reflective capacities, or contextual factors.

Conclusion

My study aimed to investigate whether early rearing experiences predicted depressive symptoms, marital satisfaction, and parenting practices in early parenthood using prospective data. Overall, I found that parental warmth and rejection at age 11 did not directly predict outcomes in adulthood once baseline depressive symptoms were taken into account. These findings stand in contrast to previous research using retrospective reports, which has found stronger associations between remembered parenting and adult adjustment (Huffhines et al., 2024). The results highlight the importance of considering the developmental continuity of internalizing symptoms established in childhood and the limitations of relying on retrospective data to understand long-term effects of parenting.

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Appendix A

Sensitivity Analysis Excluding Influential Outliers

Table A1

Regression Results Excluding Influential Outliers

	Depression	Neg. marital interactions	Positive Parenting	Negative Parenting
Parental	-0.041	-0.070	0.140	-0.068
Warmth	(.541)	(.240)	(.066)	(.258)
Parental	0.097	0.051	0.008	-0.024
Rejection	(.196)	(.490)	(.900)	(.725)
Age	0.086	-0.063	**-0.104**	-0.018
	(.107)	(.270)	**(.041)**	(.759)
Gender	-0.029	0.079	**-0.123**	-0.034
	(.610)	(.134)	**(.026)**	(.514)
SES	0.003	0.093	**-0.163**	**0.228**
	(.968)	(.170)	**(.003)**	**(<.001)**
Baseline	**0.142**	**0.203**		**0.185**
Depression	**(.016)**	**(.011)**		**(<.001)**
R^2	.052	.081	.078	.088

Note. Each cell contains the standardized regression coefficient (β), followed by the *p*-value in parentheses. SES = socioeconomic status of participants family of origin. Age = measured at the three month post birth assessment. Unadj. = unadjusted model including only the main predictors. Adj. = adjusted model including main predictors and control variables.

Appendix B

Complete Case Analysis

Table B1

Regression Results Based on Complete Case Analysis

	Depression	Neg. marital interactions	Positive Parenting	Negative Parenting
Parental	-0.063	-0.085	**0.158**	-0.064
Warmth	(.352)	(.139)	**(.044)**	(.302)
Parental	0.090	0.005	0.007	-0.035
Rejection	(.250)	(.947)	(.914)	(.519)
Age	0.099	-0.030	**-0.124**	0.026
	(.070)	(.571)	**(.011)**	(.622)
Gender	-0.006	0.078	**-0.119**	-0.044
	(.916)	(.177)	**(.040)**	(.417)
SES	0.003	0.095	**-0.143**	**0.196**
	(.961)	(.080)	**(.002)**	**(<.001)**
Baseline	**0.131**	**0.222**		**0.186**
Depression	**(.037)**	**(.018)**		**(<.001)**
R^2	.058	.084	.087	.080

Note. Each cell contains the standardized regression coefficient (β), followed by the *p*-value in parentheses. SES = socioeconomic status of participants family of origin. Age = measured at the three month post birth assessment. Unadj. = unadjusted model including only the main predictors. Adj. = adjusted model including main predictors and control variables.