

The Relationship between Parenting Stress and Internalising Problem Behaviour in Children

Final Thesis

Master's Thesis

University of Utrecht

Master in Pedagogical Sciences

Master's program Orthopedagogics

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03-06-2016



Preface

Writing this thesis was more interesting and enjoyable than I thought it would be and working on and composing the different parts has taught me a lot. During the process several people helped and contributed in various ways. First of all, I would like to thank Leonie Vreeke and Helen Vossen for providing me with feedback and for being patient enough to answer all my questions regarding the incomprehensible program that's called SPSS. I also want to thank Denise Richardson for revising my use of the English language and grammar. It really improved my thesis. Finally, I would like to thank Marian Jongmans for providing the idea and encouragement which ultimately led to the decision to write my thesis in English.

Kim van Amersfoort

Abstract

This study examined the relationship between parenting stress of fathers and mothers and the development of internalising problem behaviour in boys and girls. It is important to examine the specific influences of gender on this association given the lack of research on this topic and the heightened risks for children to develop serious problems as a result of parenting stress and internalising problems. Participants were fathers and mothers of 401 Dutch, non-clinical children aged one to four years old. Results revealed that the more parenting stress parents experienced, the more internalising problems children had. No difference in influence was found between fathers and mothers in the association between parenting stress and internalising problems. Finally, it appeared that there was a difference between boys and girls in the association between parenting stress and internalising problem behaviour. It was concluded that these results provide an indication that, when parents experience parenting stress, this stress should be reduced, or at least taken into consideration in both research and practice, given the possible consequences this could have on the development of internalising problem behaviour in children.

Keywords: Parenting Stress, Internalising Problem Behaviour, Gender.

Samenvatting

De huidige studie onderzoekt de relatie tussen opvoedstress bij vaders en moeders en de ontwikkeling van internaliserende gedragsproblemen bij jongens en meisjes. Omdat er weinig wetenschappelijk onderzoek bestaat naar dit onderwerp is het van belang de specifieke invloeden van sekse op deze relatie te onderzoeken. Door opvoedstress van ouders en door internaliserende gedragsproblemen lopen kinderen bovendien risico op het ontwikkelen van serieuze problematiek. De participanten in deze studie zijn vaders en moeders van 401 Nederlandse kinderen in de leeftijd van een tot vier jaar oud. Uit de resultaten blijkt dat hoe meer opvoedstress ouders ervaren, hoe meer internaliserende gedragsproblemen kinderen vertonen. Er is geen verschil in invloed van de sekse van ouders op deze relatie. Wel blijkt dat er een verschil bestaat tussen jongens en meisjes in de relatie tussen opvoedstress en internaliserende gedragsproblemen. Er wordt geconcludeerd dat, wanneer ouders opvoedstress ervaren, het nodig is dat deze stress wordt verminderd, of dat hier tenminste rekening mee wordt gehouden in zowel wetenschappelijk onderzoek als praktijk, vanwege de mogelijke consequenties die opvoedstress kunnen hebben op de ontwikkeling van internaliserende gedragsproblemen bij kinderen.

Trefwoorden: Opvoedstress, Internaliserende Gedragsproblemen, Sekse.

The Relationship Between Parenting Stress and Internalising Problem Behaviour in Children

Experiencing internalising problem behaviour during childhood is, unfortunately, a relatively prevalent problem in young children and can have a considerable impact on their development. According to large international research, the estimated prevalence of this kind of problem behaviour in pre-school aged children is 9.6% (Rescorla et al., 2011). During childhood the internalising problems primarily comprises of anxiety and depression, and it is likely to involve such behaviours as social withdrawal, behavioural inhibition and mood symptoms (American Psychiatric Association, 2000). Experiencing these problems can have a variety of detrimental effects on child development. Those children affected have a higher risk of experiencing peer victimization in adolescence (Giora, Gega, Landau, & Marks, 2005) and of developing anxiety disorders in adulthood (Essex, Klein, Slattery, Goldsmith, & Kalin, 2014). Given the serious nature of the possible outcome of this behaviour it is important to determine the potential risk factors which can contribute to the development of internalising problem behaviours.

Risk factors that influence the development of internalising problems could be attributed to factors within children and to factors in their surrounding environment. A model that can be used to explain this process is the social ecological model of Bronfenbrenner (1979). This model regards human development as the continuous and bidirectional interaction between different systems both within and surrounding an individual. Influences that operate within children's systems which could contribute to the development of internalising problem behaviour are genetic influences (Boomsma, Van Beijsterveldt, & Hudziak, 2005). In the systems surrounding children, parental psychopathology such as maternal depression (Goodman et al., 2011), or parenting behaviours such as parental control or rejection (McLeod, Weisz, & Wood, 2007; McLeod, Wood, & Weisz, 2007), can play a role in the development of these problems.

Another example of parenting behaviour that might contribute to the development of internalising problem behaviour is parenting stress (e.g., Rodriguez, 2011; Tharner et al., 2012). Deater-Deckard (1998) states in his literature review that parenting stress can be defined as the aversive psychological reaction to the mismatch between the perceived demands of being a parent and the available parenting resources. Parents who experience parenting stress are more likely to use poorer parenting behaviours such as authoritarian and negative parenting. They also tend to be less involved with their children and have a negative view of their role as a parent (Abidin, Jenkins, & McGaughey, 1992). This might result in

parents who are not able to care for their children in effective, sensitive ways and subsequently have influence on children's development (Holden, 2014).

Parenting Stress and Internalising Problem Behaviour

Recent research reveals that parenting stress is related to anxiety and depressive symptoms as reported by children (Rodriguez, 2011). More specifically, research in the Netherlands found an association between maternal parenting stress and children's emotional reactivity and withdrawn behaviour (Tharner et al., 2012). Several studies indicate that the more parenting stress parents experience, the more internalising problems their children will demonstrate (Costa, Weems, Pellerin, & Dalton, 2006; Rodriguez, 2011; Tharner et al., 2012). Additional to direct relationships, indirect relationships were also found between parenting stress and internalising problem behaviour. Examples of mediators in the relationship between parenting stress and internalising problems are a disorganized or avoidant attachment style in children (Tharner et al., 2012) or children's maladaptive attribution style for positive (life)events (Rodriguez, 2011). However, due to the scope of the current paper, the influence of these particular moderators will not be further evaluated. Altogether, it can be concluded that parenting stress is indeed a factor that could influence the development of internalising problem behaviours in children.

The Influence of Gender

Parenting stress can postulate itself in different forms between fathers and mothers. Despite the recent shift towards a more equal division in parenting tasks, there still seems to be a difference between a father's and a mother's parenting tasks, their parental behaviour (Barnard & Solchany, 2002; Parke, 2002) and their manner of parenting sons and daughters (Leaper, 2002). Given these differences, it can be assumed that fathers and mothers experience different amounts of parenting stress and that the gender of their child has its influence on the perceived stress. It seems to be that the only more recent research, which specifically examined the influence of parent and child gender on parenting stress, is done by Scher and Sharabany (2005) who concluded that in general mothers experience more parenting stress than fathers do. Additionally, sons tend to elicit more parenting stress in mothers than daughters do. For fathers however, no significant difference in the level of parenting stress was found whether parenting sons or daughters. Taken together it can be concluded that the gender of parents and the gender of children seem to have their influences on the degree in which parents experience parenting stress.

The Current Study

The aim of the current study is to examine the association between parenting stress and internalising problem behaviour in Dutch children aged one to four years old. With the current study the following question will be answered: ‘What is the relationship between parenting stress of fathers and mothers and the development of internalising problem behaviour in sons and daughters?’ Although some studies have examined this association (e.g., Costa et al., 2006; Rodriguez, 2011; Tharner et al., 2012), there is a lack of research that specifically addresses the possible influence of parents’ and child’s gender on this relationship. It is important to examine this relationship given the heightened risks for children to develop serious problems as a result of parenting stress and internalising problems. We first of all expect to find a positive association between parenting stress and internalising problem behaviour in children (Hypothesis 1). This is in accordance with previous research on this topic (e.g., Costa et al., 2006; Tharner et al., 2012). Based on the study from Scher and Sharabany (2005), who concluded that mothers experience more parenting stress in general, we expect to find a stronger association between parenting stress and internalising problem behaviours in children for mothers compared to fathers (Hypothesis 2). Finally, research reveals that mothers experience more stress in parenting sons than in parenting daughters (Scher & Sharabany, 2005), which might eventually result in more internalising problems in boys. We therefore expect to only find a stronger relationship for boys than for girls between parenting stress and internalising problems in mothers (Hypothesis 3). By examining these hypotheses, this study could provide indications that, when parents experience parenting stress, this stress should be reduced, or at least taken into consideration, given the possible consequences this could have on the development of internalising problem behaviour in children.

Methods

Participants and Procedure

The current research is part of a larger longitudinal study, called ‘*Parenting; The practices of parents in the Netherlands*’, and was conducted among the parents of young children. Parents of 1140 Dutch non-clinical children, aged one to four years old, were recruited via day care and preschool centres. They completed several questionnaires measuring parenting styles, child’s development, temperament and problem behaviour. The questionnaires were completed at home and then sent back to the researchers. The anonymity and confidentiality of the participants were protected and participants could discontinue their cooperation at any time.

In the current study the parents who completed the Child Behaviour Checklist/1.5-5 (CBCL/1.5-5; Verhulst, Van der Ende, & Koot, 2000) and the Nijmeegse Ouder Stress Index – Korte versie (NOSIK; De Brock, Vermulst, Gerris, & Abidin, 1992) were used. After excluding parents who completed less than 75% of the questionnaires, this resulted in a sample of 401 children (mean age $M = 3.01$, $SD = 1.49$, 48.4% boys), 401 fathers and 401 mothers. It appeared that 16% of these children have no siblings, 57.6 % have one sibling, 20% have two siblings, 4.2% have three siblings and 0.5% have four siblings. The mean gestational weeks of these children were $M = 39.64$, $SD = 2.52$. The remaining general participant characteristics can be found in Table 1.

Table 1

Participants' Characteristics

Variable	Fathers	Mothers
Ethnicity: Dutch (%)	374 (93.3)	379 (94.5)
Lower educational level (%)	45 (11.2)	30 (7.5)
Intermediate educational level (%)	121 (30)	107 (26.7)
Higher educational level (%)	229 (57.1)	261 (65)
Mean hours of work per week (<i>SD</i>)	38.76 (8.32)	22.04 (9.34)
Marital Status: married/cohabiting (%)	389 (99.3)	389 (99.3)

Questionnaires

Background questionnaire. Before completing the other requirements, parents completed a general background questionnaire. This questionnaire contains general enquiries into for instance gender, number of siblings, length of pregnancy, the educational level of the parents and their ethnicity.

Child Behaviour Checklist/1.5-5 (CBCL/1.5-5). The CBCL/1.5-5 is a questionnaire to detect emotional and behavioural problems in children aged from one year and six months old to five years old (Achenbach, 2000; Verhulst et al., 2000). The questionnaire consists of 60 questions which have to be completed by parents. Since only the broadband scale that measures internalising problems was used, this leaves 36 items. Examples of the questions are: “My child is too anxious or fearsome” and “My child clings to adults or is too dependent”. These questions have to be answered on a 3-point scale, ranging from ‘non-

applicable' to 'clearly or often applicable'. The total internalising problem score of the CBCL is computed by summing the scores of the relevant items. Higher scores relate to more internalising problems. Rescorla (2005) concluded in his review on studies using the CBCL/1.5-5 that in general, the reliability and the validity of the English version of this questionnaire (Achenbach & Rescorla, 2000) were rated as 'good'. For the Dutch version of the CBCL/1.5-5 used in the current study, the reliability was assessed by computing the Cronbach's Alpha and appeared to be 'good' for both fathers (Cronbach's $\alpha = .86$) and mothers (Cronbach's $\alpha = .83$).

Nijmeegse Ouder Stress Index-korte versie (NOSIK). The NOSIK (De Brock et al., 1992) is the shorter version of the NOSI and the Dutch translation of the Parenting Stress Index (PSI; Abidin, 1990). The aim of this questionnaire is to rate the perceived stress parents experience in relation to the parenting of their children. The questionnaire consists of 25 considerations which have to be answered by parents of children aged two to 13 years old. Examples of questions in the NOSIK are; "My child demands more attention than I am able to give him/her" and "Parenting this child is more difficult than I expected it to be" Parents answer the questions on a 6-point Likert scale, ranging from 'strongly disagree' to 'strongly agree'. The total score of the NOSIK is derived by summing the scores on all items. Higher scores relate to more parenting stress. The English version of the NOSIK (PSI-Short Form; Abidin, 1990) is rated as both reliable and valid (Whiteside-Mansell et al., 2007) whereas for the Dutch version the reliability and validity are satisfactory (De Brock et al., 1992). In the current study, the reliability of the NOSIK appeared to be good for fathers (Cronbach's $\alpha = .95$) and for mothers: (Cronbach's $\alpha = .88$).

Analyses

The data has been analysed using SPSS 20. Due to the data format which caused interdependence between the parents' data, the analyses were performed using either the data reported by fathers or by mothers. The assumptions were checked before running the analyses. As it appeared that the variables measuring parenting stress and internalising problem behaviour contained univariate outliers, the outliers were identified by producing boxplots and corrected by giving them the highest possible value fitting the model (NOSIK reported by fathers = 82, NOSIK reported by mothers = 78, CBCL/1.5-5 reported by fathers and mothers = 15.50; Field, 2013).

Before performing the analyses to answer the hypotheses two paired-samples *t*-tests were performed to determine whether there are significant differences between fathers and mothers in (1) levels of parenting stress and in (2) levels of reported internalising problem

behaviour in children. Subsequently, two independent samples *t*-tests were performed to determine the differences between boys and girls in the levels of internalising problem behaviour reported by either (1) fathers or (2) mothers. To answer Hypothesis 1, two hierarchical multiple regression analyses (MRA) were performed. With these analyses the size and direction of the linear association between (1) paternal and (2) maternal parenting stress and internalising problem behaviour was determined. To be able to answer Hypothesis 2, the equation to determine equality of regression coefficients developed by Paternoster, Brame, Mazerolle and Piquero (1998) was used. With this equation it could be determined whether there is a stronger association between parenting stress and internalising problems for fathers or for mothers. Finally, using the PROCESS macro (Hayes, 2013), two moderation analyses were performed to answer Hypothesis 3. These analyses assessed the possible difference in internalising problem behaviour between boys and girls in the association with either (1) paternal or (2) maternal parenting stress. As it appears that having multiple children elicits more parenting stress compared to having one child (Holden, 2014), the variable ‘number of siblings’ was used as a covariate in the hierarchical MRA’s and moderation analyses.

Results

General Findings

First of all, two paired-samples *t*-tests were performed to determine whether there are differences between fathers and mothers on the measures of parenting stress and on the reported internalising problem behaviour in children. It appeared that there is no significant difference between the levels of paternal and maternal parenting stress (fathers $M = 46.93$, $SD = 13.75$; mothers $M = 45.92$, $SD = 13.16$); $t(400) = 1.55$, $p = .122$. Additionally, there appeared to be no significant difference between the levels of internalising problems reported by fathers and the levels of internalising problems reported by mothers (fathers $M = 6.04$, $SD = 5.53$; mothers $M = 6.10$, $SD = 5.21$); $t(400) = -.20$, $p = .841$.

Subsequently, an independent samples *t*-test was performed to determine whether there are child gender differences on the measures of parenting stress and internalising problems. The difference between boys and girls appeared to be non-significant when fathers reported internalising problems (boys $M = 6.31$, $SD = 6.32$; girls $M = 5.79$, $SD = 4.68$); $t(399) = .932$, $p = .352$, and when mothers reported internalising problems (boys $M = 6.21$, $SD = 5.31$; girls $M = 5.99$, $SD = 5.13$); $t(399) = .426$, $p = .670$.

Parenting Stress and Internalising Problem Behaviour

Two hierarchical MRA's were performed to answer Hypothesis 1. Within both analyses internalising problem behaviour was used as the criterion variable, number of siblings was entered in the first step and parenting stress was entered in the second and final step. The assumptions were checked for both analyses. The results of the two hierarchical MRA's are reported in Table 2. For the first hierarchical MRA (MRA 1) between paternal parenting stress and internalising problem behaviour as reported by fathers, it appeared that in the first step the number of siblings has a positive influence on internalising problems. As expected there appeared to be a positive association between paternal parenting stress and internalising problem behaviour in the second step; an effect which can be considered 'medium'; Cohen's $f^2 = .236$.

Within the second hierarchical MRA (MRA 2) between maternal parenting stress and internalising problem behaviour as reported by mothers, the number of siblings has a positive influence on the reported internalising problems in the first step of the model. There appeared to be a positive association between maternal parenting stress and internalising problems in the second step; an effect which can be considered 'medium'; Cohen's $f^2 = .163$.

Parenting Stress and Internalising Problem Behaviour: Influence of Parents' Gender

The question whether there is a stronger association between parenting stress and internalising problem behaviour for fathers or for mothers (Hypothesis 2) was answered using the equation of Paternoster and colleagues (1998). When adding the B-values (B) and Standard Errors (SE) of the hierarchical MRA's as described above into the model, there appears to be no significant difference between fathers and mothers on the levels of parenting stress in association with internalising problems: $p = .577$, two-tailed (confidence interval, CI = $-.038, .068$).

Separate Associations between Parents and Children by Gender

To answer the question as to whether there is a stronger relationship for boys than for girls between either paternal (Model 1) or maternal (Model 2) parenting stress and internalising problems (Hypothesis 3), two moderation analyses using the PROCESS macro (model 1, Hayes, 2013) were performed. Within both analyses, parenting stress was used as the independent variable, internalising problem behaviour as the outcome variable, child gender as the moderator variable and number of children as the covariable. The assumptions were checked for both analyses.

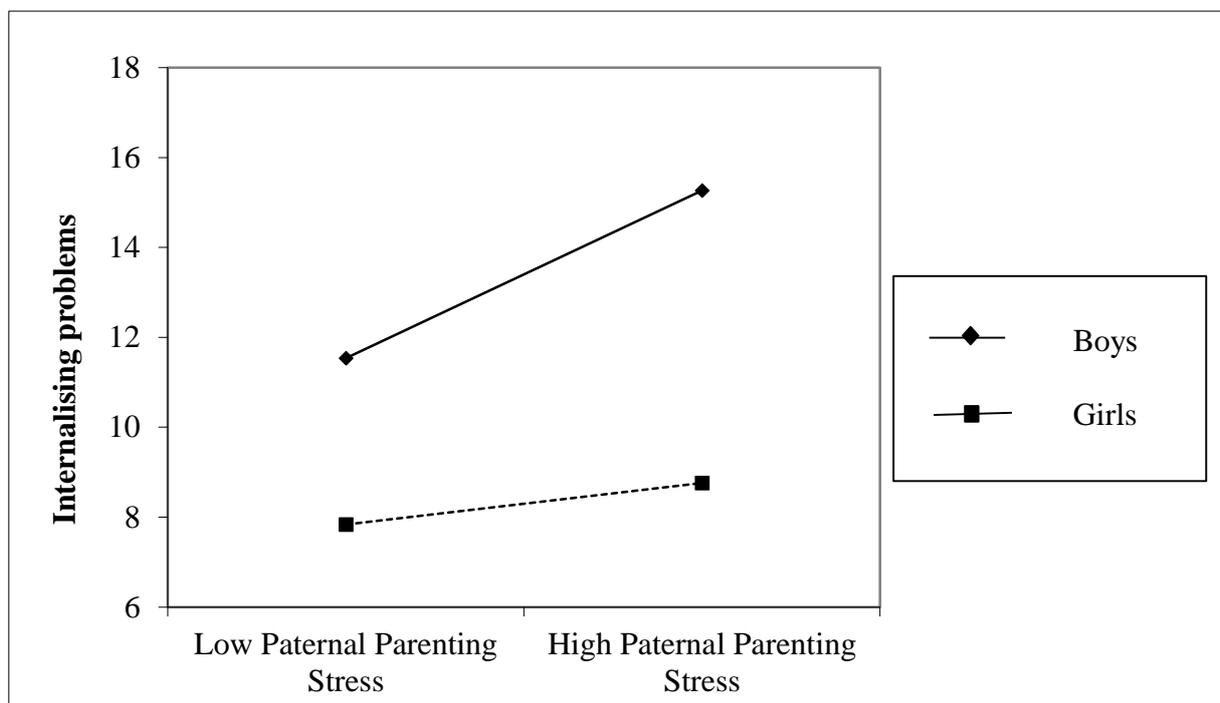
As can be seen at the interaction variable in the paternal interaction model (Model 1) in Table 3, child's gender appears to positively moderate the association between paternal parenting stress and internalising problem behaviour. It seems that only boys influence this

association which means that there is a stronger relationship for boys than for girls between paternal parenting stress and internalising problems. By Cohen's conventions, this effect can be considered 'medium'; Cohen's $f^2 = .261$. Figure 1 displays the graph of this association.

The interaction variable in the maternal interaction model (Model 2) in Table 3 reveals that for mothers, child's gender does not affect the association between parenting stress and internalising problems.

Figure 1

Graph Showing the Association between Paternal Parenting Stress and Internalising Problem Behaviour



Note. The variable 'child's gender' is used as moderator.

Table 2

Results from the Hierarchical Regression Analyses between (MRA 1) Paternal Parenting Stress and Internalising Problem Behaviour and (MRA 2) Maternal Parenting Stress and Internalising Problem Behaviour

Steps	Measurement	Model Summary Statistics			Model Statistics			
		Unstandardized coefficients		Standardised coefficient	<i>p</i>	<i>F</i>	<i>R</i> ²	ΔR^2
		B [95% CI]	SE	β				
MRA 1								
1	Total Step 1				.000	28.032	.067	.067
	Constant	8.157 [7.190, 9.124]	.492		.000			
	Number of siblings	-1.905 [-2.613, -1.198]	.360	-.258	.000			
2	Total Step 2				.000	46.022	.191	.124
	Constant	.692 [-1.410, 2.793]	1.069		.518			
	Number of siblings	-1.357 [-2.031, -.683]	.343	-.184	.000			
	Paternal parenting stress	.146 [.109, .184]	.019	.360	.000			
MRA 2								
1	Total Step 1				.000	13.815	.034	.034
	Constant	7.547 [6.622, 8.473]	.471		.000			
	Number of siblings	-.1280 [-1.957, -.603]	.344	-.185	.000			
2	Total Step 2				.000	31.933	.140	.106
	Constant	1.291 [-.682, 3.263]	1.003		.199			
	Number of siblings	-1.042 [-1.685, -.399]	.327	-.150	.002			
	Maternal parenting stress	.131 [.094, .168]	.019	.328	.000			

Note. CI = confidence interval; *p* = two-tailed. The dependent variable for MRA 1 is internalising problem behaviour reported by fathers, *N* = 394. The dependent variable for MRA 2 is internalising problem behaviour reported by fathers, *N* = 394.

Table 3

Results from the Moderation Analyses Showing the Interaction Effect of Child's Gender on the Relationship between (Model 1) Paternal and (Model 2) Maternal Parenting Stress and Internalising Problem Behaviour

	Measurement	Model Summary Statistics		Model Statistics				
		Unstandardized coefficients		<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i> ²	ΔR^2
		B [95% CI]	SE					
Model 1	Total Model				.000	13.917	.207	.015
	Constant	7.442 [6.478, 8.405]	.490	15.187	.000			
	Sex	-.365 [-1.357, .628]	.505	-.722	.471			
	Paternal parenting stress	.137 [.091, .184]	.024	5.821	.000			
	Interaction (stressxgender)	-.102 [-.197, -.007]	.048	-2.119	.035	4.492		.015
	Number of siblings	-1.303 [-1.891, -.714]	.299	-4.352	.000			
	Boy: effect: .190		.041	4.686	.000			
	Girl: effect: .088		.026	3.441	.001			
Model 2	Total Model					15.047	.143	.002
	Constant	7.306 [6.460, 8.153]	.431	16.972	.000			
	Sex	.061 [-.910, 1.033]	.494	.124	.901			
	Maternal parenting stress	.134 [.095, .174]	.020	6.732	.000			
	Interaction (stressxgender)	.037 [-.043, .117]	.041	.0918	.359	.842		.002
	Number of siblings	-1.046 [-1.568, -.524]	.266	-3.939	.000			
	Boy: effect: .115		.0306	3.760	.000			
	Girl: effect: .153		.0263	5.794	.000			

Note. CI = confidence interval; *p* = two-tailed. The variables measuring parenting stress and gender were mean centered prior to performing the analyses. The dependent variable is internalising problem behaviour reported by fathers (Model 1), *N* = 401 or by mothers (Model 2), *N* = 401.

Discussion and Conclusion

The aim of the current study was to determine the relationship between paternal and maternal parenting stress and internalising problem behaviour in boys and girls. It is important to examine the specific influences of gender on this association given the lack of research on this topic and the heightened risks for children to develop serious problems as a result of parenting stress and internalising problems.

Overall, results reveal the existence of an association between parenting stress and internalising problems, and show that child's gender influences this association. More specifically, this study provides support for the existence of a positive association between paternal as well as maternal parenting stress and internalising problem behaviour in children (Hypothesis 1). That is, the more parenting stress parents experience, the more internalising problems children tend to have. These findings are in line with previous research (e.g. Costa et al., 2006; Rodriguez, 2011; Tharner et al., 2012) and indicate that both paternal and maternal parenting stress could be factors influencing the development of internalising problems in children.

To answer the second hypothesis, there appears to be no difference in influence between fathers and mothers in the association between parenting stress and internalising problems. This finding suggests that paternal and maternal parenting stress equally influences the development of internalising problems in children. Hence, theory and practice should pay the same attention to both paternal and maternal parenting stress. With this result, our hypothesis is not supported and this finding is not in keeping with the conclusions Scher and Sharabany (2005) made, in which mothers tend to experience more parenting stress than fathers do. A possible explanation for this finding could be the cultural differences between the participants within both studies. As Bronfenbrenner (1979) argued, different systems surrounding people can influence human development and, for instance, dispositions people have. These dispositions could in turn influence parenting behaviour. One of the systems that influences people's dispositions is the culture in which they live and grow up. As such, different cultures have a differential influence on dispositions and on parenting behaviour, which could subsequently influence child behaviour and –development (Bornstein & Cheah, 2006) and cause the differential results obtained in this study.

Finally, there appears to be no effect of child's gender on the association between maternal parenting stress and internalising problems. Hence, the third hypothesis is not supported and this finding is contrary to research from Scher and Sharabany (2005). Interestingly, and again not in keeping with previous research (Scher & Sharabany, 2005), it

appears that the more parenting stress fathers experience, the more internalising problems boys tend to have. This means that there seems to be a stronger relationship for boys than for girls between paternal parenting stress and internalising problems, as there appeared to be no association between paternal stress and internalising problems in girls. Despite the greater emphasis in research on maternal influences (Lamb, 2013), this finding highlights the importance to not devalue the influence paternal parenting stress or -behaviour could have on children and, in this case, on internalising problems in boys. When assessing the possible explanations for these findings, the differences in cultures between the current research and the study conducted by Scher and Sharabany (2005) could influence parenting behaviours and child development (Bornstein & Cheah, 2006; Bronfenbrenner, 1979) which in turn could cause the different results. Another possible explanation could be that, apart from the number of siblings, other factors also influence the levels of reported internalising problems. One of these factors could be parental acceptance. Parents who are acceptant towards their children are, in general, positive, affectionate, emotional supportive, and treat their children equally. It appears that, when children rate fathers as less acceptant, fathers report more internalising problems in children in comparison to when children rate fathers as more acceptant. This association was not found for mothers (Trentler & Epkins, 2003), and could indicate that, amongst other possible influences, also the parent-child relationship might influence the level of reported internalising problems. As fathers' and mothers' manner of parenting sons and daughters differ (Leaper, 2002), these differential parenting behaviours could also influence the parent-child relationship. Taken together it could be possible that, when the quality of the parent-child relationship is worse, fathers might report more internalising problems. These levels of reported internalising problems could differ between boys and girls, which could ultimately lead to the results on the third hypothesis as described above. Further research on this topic should identify the exact mechanisms.

The current study adds to the existing body of knowledge on factors influencing the development of internalising problems by taking the effects of gender into consideration. Moreover, the fact that for each child both parents participated adds to the strength of the study since, in comparison with mothers, the influences of paternal parenting behaviour has been relatively neglected in international research (Lamb, 2013). When considering the limitations, it should be noted that 93.3% of fathers and 94.5% of mothers have the Dutch nationality, which is not entirely representable for the Dutch population. Considering the fact that cultures influence parenting- and child behaviour (Bornstein & Cheah, 2006), including different ethnic groups to obtain a more representable image of the Dutch population could

lead to different results on the levels of parenting stress and reported internalising problems, and in this way influence results. Another limitation is the cross-sectional design of this study. With this design, possible causal relationships between parenting stress and internalising problem behaviour could not be determined.

Further research on this topic should include a research population that is more representable for the Dutch population. Moreover, it should use a longitudinal design to identify causal relationships between paternal and maternal parenting stress and internalising problem behaviour in boys and girls. To conclude with, possible moderators and mediators that could influence this relationship should be identified.

Taken together, this study provides an indication that, when fathers or mothers experience parenting stress, this stress should be reduced, or at least taken into consideration in both research and practice, given the possible consequences this could have on the development of internalising problem behaviour in children and primarily in boys.

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