

JILL BAARS

Intergenerational Transmission of Maltreatment:

What is the
underlying
theory?

STUDENTNUMBER

1075470

SUPERVISOR

Prof. Dr. L. R. A. Alink

APRIL 2012

**MASTER THESIS
LEIDEN UNIVERSITY**

CHILD AND FAMILY STUDIES



Universiteit Leiden

Preface

This thesis is my end product for the master Child and Family Studies. During my research internship my interest for the intergenerational transmission of maltreatment had been increased. For this internship I had to interview maltreating mothers about their own childhoods. Their personal stories caught me and I was really enthusiastic when I heard that I could use the interviews to measure history of maltreatment. Especially because I could participate in a new application of the interviews and, therefore, make this thesis my own little project.

Writing this thesis had been a struggling process, especially in the beginning. I had to rewrite the first part because my computer crashed, I lost some data in the train and I could not motivate myself to write the introduction. Along the way I started to feel better and I started to enjoy this research again, especially when I could analyse all the data. In the end I even worked fast to finish my thesis. All I can say now is that I really learned from this whole experience and I am really proud of my end result.

I could not finish this thesis without the help of some important people. First, I want to thank my supervisor Lenneke Alink for her advice and guidance during this whole process. I was always amazed how fast she was in revising each section and answering my emails. I would also like to thank Laura Compier-de Block and Sophie Reijman for encouraging me and listening to my stories. For the creative input of the front page, I would like to thank Tessa Kwee. Because of her skills as a graphic designer this thesis has become a beautiful end product! And finally, I would like to thank my dear family and friends for their support, interest and ideas. Your encouragement really helped me to stay motivated and confident about my thesis.

Content

Abstract	2
1. Introduction	3
1.1 Intergenerational Transmission of Maltreatment	3
1.1.1 Social Learning Theory	4
1.1.2 Attachment Theory	5
1.1.3 Family Stress Model	6
1.2 Methodological Issues	7
1.2.1 Definition of Maltreatment	8
1.2.2 Sampling	9
1.2.3 Measuring Maltreatment	9
1.3 Current Study	11
2. Method	13
2.1 Sample	13
2.2 Measurements	13
2.2.1 Current Child Maltreatment	13
2.2.2 History of Child Maltreatment	14
2.2.3 Continuity of Unemployment	15
2.3 Procedure	15
2.4 Data-inspection	16
2.5 Data-analysis	16
3. Results	18
3.1 Data Inspection and Descriptive Statistics	18
3.2 Intergenerational Transmission of Maltreatment	21
3.3 Type-Specific Transmission of Maltreatment	22
3.4 Interaction of History of Maltreatment and Continuity of Unemployment	23
4. Discussion	26
4.1 Intergenerational Transmission of Maltreatment	26
4.2 Type-Specific Transmission of Maltreatment	27
4.3 The Role of Continuity of Unemployment	28
4.4 Limitations	29
4.5 Future Research and Implications	29
4.6 Conclusion	30
References	32

Abstract

This study examined the intergenerational transmission of maltreatment by using multiple measurements for retrospective history of maltreatment. Furthermore, social learning theory, attachment theory, and family stress model were examined as an explanation for intergenerational transmission of maltreatment. This study compared 24 mothers who were in treatment because of maltreating behaviours, to 18 control group mothers who did not maltreat their own children. Results showed that mothers who currently maltreat their own children were more likely to have a history of child maltreatment than mothers from the control group. This significant result was only found when history of maltreatment was measured using a questionnaire (CTQ-SF). The same trends, although nonsignificant, were found when history of maltreatment was measured using an interview (AAI) or a combined measurement of interview and questionnaire. This study did not find support for type-specific patterns and the moderating role of continuity of unemployment. The findings of this study support the hypothesis for the intergenerational transmission of maltreatment. However, no support was found for the social learning theory or the family stress model. Attachment theory might be a better explanation for intergenerational transmission of maltreatment. Further research on attachment theory is needed to confirm this.

Keywords: Intergenerational transmission, Maltreatment, Type-specific patterns, Unemployment

1. Introduction

Maltreatment of children by their parents is a critical issue that has received a lot of attention around the world over the past few decades. Because it is related to many problems (Cicchetti & Toth, 2000) child maltreatment has been an important topic for research, intervention and prevention. The negative consequences of child maltreatment are well known and can persist into adulthood (Cicchetti & Toth, 2000). For example, a child's development can be affected physically, psychologically and emotionally and it can also lead to death in some cases (Buchanan, 1996). Besides the effects on current development, child maltreatment can also impair a child's later development and functioning as an adult (Buchanan & Oliver, 1977). One example of these long-term consequences is intergenerational transmission of maltreatment: Parents who have been abused when they were children are at higher risk to be abusive and neglectful to their children themselves (Buchanan, 1996). Detailed research on intergenerational transmission of maltreatment is needed to get more information about the mechanisms underlying this transmission, which are supported by different theories. Many studies on the intergenerational transmission of maltreatment are faced with methodological problems, for example the measurement of maltreatment. Therefore, more well-designed research is necessary to investigate the mechanisms of intergenerational transmission of maltreatment. These mechanisms can be used as the focus for prevention and intervention programmes, in order to break the cycle of maltreatment.

The current study will look at different mechanisms that may explain the intergenerational transmission of maltreatment. In the next section intergenerational transmission of maltreatment will further be discussed, along with the theories that can clarify this phenomenon. Thereafter, methodological issues that play a role in studying intergenerational transmission of maltreatment will be illustrated. To conclude this section, there will be a brief description of the current study.

1.1 Intergenerational Transmission of Maltreatment

Child maltreatment is a common social problem all over the world that has received much attention in the past few decades. There are a number of prevalence studies of child maltreatment in the community that show the magnitude of the problem. There have been four large prevalence studies in the United States, the National Incidence Study (NIS; Sedlak et al., 2010). These studies obtain data from reports of Child Protection Service (CPS) agencies as well as children who were identified as maltreated by other professionals in the community, called sentinels. The fourth National Incidence Study (NIS-4; Sedlak et al., 2010) showed an estimated rate of 39.5 cases per 1,000 children reported by sentinels and CPS agencies. This study reflects data gathered in 2005 and 2006. The same type of prevalence study was for the second time replicated in the Netherlands as the Second Netherlands' Prevalence Study of Maltreatment of children and youth (NPM-2011; Alink et al., 2011). Alink et al.

(2011) found an estimated rate of 34 cases of maltreatment per 1,000 children. These rates reflect a year prevalence instead of lifetime prevalence.

One of the major risk factors for child abuse and neglect is the parent's history of child maltreatment (Pears & Capaldi, 2001). The study of Pears and Capaldi included 109 parents and their sons, who were followed for ten years. Parents reported on their own history of child abuse and ten years later their sons reported the parents' abusive behaviour towards them. Pears and Capaldi found in their study that parents with a history of child maltreatment were 2.56 times more likely to be abusive to their own children than parents who were not abused in their childhood. Other researchers also found support for the association between a parent's history of child maltreatment and their abusive behaviours towards their own children (Dixon, Hamilton-Giachritsis, & Browne, 2005; Kim, 2009; Newcomb & Locke, 2001; Zuravin, McMillen, DePanfilis, & Risley-Curtiss, 1996). The estimated prevalence of the intergenerational transmission of maltreatment is 30% (Buchanan & Oliver, 1977; Kaufman & Zigler, 1987), while the rate of child abuse in the community is almost 4% (Sedlak et al., 2010). This means that about 30% of maltreated children will later maltreat their own children whereas only 4% of people in the general population will maltreat their own children. However, the rates of child abuse in the community reflect a year prevalence, so the life-time prevalence will probably be higher.

Several theories have been put forward to explain the increased risk of child maltreatment among parents with a history of maltreatment. In the next sections the following three theories that may explain intergenerational transmission of maltreatment will be discussed: Social learning theory, Attachment theory and the Family stress model.

1.1.1 Social Learning Theory

According to social learning theory, children learn their behaviour from observing other people's behaviour and modelling their behaviour on this (Bandura, 1977). Observational learning is not a passive process and depends on four interrelated sub processes (Bandura, 1977). First, attentional processes are important to select the models that are observed. Second, retention processes are essential to reproduce the behaviour when the model is not available. Behaviours are easier to model when they are represented in a symbolic form in the memory and when the behaviour is mentally rehearsed. Third, motor reproduction processes are needed to convert the symbolic representation into corresponding acts. The modelled behaviour will be enacted when the child is in command of the required sub skills. Lastly, reinforcement and motivational processes make sure that the modelled behaviour will be activated.

Social learning theory may explain the transmission of maltreatment from parents to children. Parents are an important model for children to learn all kinds of behaviours. If parents are physically abusive, the child may model the same behaviour and will go on to be physically abusive towards their own children (Kim, 2009). This theory predicts that children will re-enact the same behaviour they

observed. Children from maltreating parents will thus show maltreating behaviour of the same type as their parents did. This means that if parents are physically abusive, children will also learn to be physically abusive, instead of, for example, being neglectful or sexually abusive, towards their own children (Kim, 2009). In short, social learning theory assumes that there is a type-specific pattern of intergenerational transmission of maltreatment.

1.1.2 Attachment Theory

Attachment theory suggests that there is an affectional bond between children and their attachment figure, usually the caregiver (Cassidy & Shaver, 2008). These bonds will give children the protection they need in order to survive. In times of need or distress the attachment system will be activated. Children will show attachment behaviours, such as calling, crying and approaching, in order to seek proximity to their attachment figure (Howe, 2005).

There are three organised attachment classifications: secure, insecure avoidant and insecure ambivalent (Ainsworth et al., 1978). Children develop strategies to adapt to parent's care giving behaviour in order to increase the availability of the parent. When parents are sensitive, responsive, consistent, available, and loving towards their children, children are likely to develop a secure attachment relationship with this caregiver. Insecure avoidant attachment relationships are characterised by parents being consistently and predictably unresponsive when their children are in need. Children with an insecure ambivalent attachment have parents who are inconsistently available because they are more concerned about their own needs and anxieties. These are all organised attachment strategies, because children can increase the availability of their parents by using their own strategy.

Some children, however, lack any kind of organised strategy to deal with stress, which is called disorganised attachment. Research shows that 90% of maltreated children have a disorganised attachment classification compared to 43% of low-income non-maltreated children (Cicchetti, Rogosch, & Toth, 2006). Main and Hesse (2006) hypothesised that traumatised parents (e.g., because of their own experiences with maltreatment as children) may show frightening behaviour towards the child when children show attachment behaviour. The activation of attachment behaviour in children will also activate the attachment in parents. Parents will then show frightening behaviour because their own unresolved traumas make them frightened and confused when their children are in need. Because of the activation of their own unresolved attachment problems and distress, these parents cannot empathise with the needs and distress of their children. The parent will show fear, distress and trance-like states, which is frightening for the child. The child's escalating distress will lead to parents becoming more distant, introvert and helpless (neglect) or being more hostile, aggressive and suppressive. Consequently, the child cannot find an organised strategy to deal with stress and will also develop a disorganised attachment relationship with this parent. This intergenerational transmission is also confirmed in the review by Van IJzendoorn (1992), who reported that around half of the

children's attachment classifications could be explained by the attachment classifications of the parents.

Contrary to social learning theory, attachment theory does not predict type specific patterns of intergenerational transmission of maltreatment. Children develop expectations of a relationship based on early experiences with their attachment figure (Bowlby, 1980). These early expectations will affect the model of self and others as well as relationships between themselves and others. People will form new relationships based on these models and the associated expectations. Therefore, it is not the specific behaviour that children model, but the expectations they have about relationships and this can include different kind of parenting behaviours.

1.1.3 Family Stress Model

Intergenerational transmission of maltreatment can also be explained by factors from the social environment. Factors outside the family can affect the level of stress experienced in the family, which can lead to child maltreatment. There may be many stressors in the environment, for example low socioeconomic status (SES), social isolation and poor neighbourhoods (Miller-Perrin & Perrin, 1999). These stressors could exist in peoples' childhoods and can continue through adulthood. For example, maltreated children are more likely to come from families with more children, with criminal or substance abuse problems, or families who receive welfare during the childhood period (Widom, 1999). In turn, adults who have been maltreated are more likely to be unemployed, poor, socially isolated and to live in poor housing and neighbourhoods (Miller-Perrin & Perrin, 1999) and may therefore be more likely to maltreat their own children. According to the family stress model, low income influences maternal emotional distress, which in turn influences parenting behaviour (maltreatment) and consequently child development (Conger et al., 1992). Research showed that low income increases the use of harsh punishment (Dodge, Pettit, & Bates, 1994). Being in constant contact with the children every day together with the increased level of stress and frustration and decreased level of self-esteem are risk factors for abusing their children (McCoy & Keen, 2009). Continuity of these stressors may thus explain intergenerational transmission of maltreatment, because the stressors are predictors and consequences of maltreatment in both generations. To support this theory the same type of environmental stressors need to be found in both generations.

To find more support for any of these theories, more well-designed research is necessary. There has been a lot of research on intergenerational transmission of maltreatment that shows the complexity of this phenomenon. Because of the complexity of the intergenerational transmission of maltreatment, there are also some methodological issues that researchers have to face.

1.2 Methodological Issues

Even though many studies support the idea that there is intergenerational transmission of maltreatment, some of these studies also show limitations in the methods of research (Ertem, Leventhal, & Dobbs, 2000). Ertem et al. (2000) systematically reviewed ten studies on intergenerational transmission of maltreatment and judged them on a scale of eight methodological standards, derived from a hypothetical randomized controlled trial. The following criteria were used: 1. equal demographic and clinical susceptibility of the first generation between the abused and non-abused sample; 2. clear description of abuse; 3. avoidance of recall and detection bias; 4. ensuring non-abuse of controls; 5. clear definition of outcome; 6. equal surveillance of both groups for the outcome event; 7. adequate control for intervening variables; and 8. clear description of person who abused the second generation. The only study that met all eight methodological criteria was the study by Egeland, Jacobvitz, and Sroufe (1988). This study consisted of 267 families with a lower social economic status. The mothers were recruited during pregnancy and followed for 64 months. The history of child maltreatment was obtained retrospectively and their current maltreating acts were observed. Variables were identified that made a distinction between mothers who broke the cycle of abuse and mothers who did not. This study supported the intergenerational transmission of maltreatment. The researchers found that mothers who reported a history of severe abuse during childhood were 12.6 times more likely to abuse their own children than mothers who did not experience a history of child abuse (Ertem et al., 2000). However, a study that met six out of the eight standards did not find support for intergenerational transmission of maltreatment (Widom, 1989). In the study of Widom (1989) 908 individuals with an official record of physical and sexual abuse and neglect cases were compared with a matched control group of 667 individuals without an official record of abuse or neglect. Both groups were compared on the rate of having a criminal record of maltreating a child as an adult. This study, however, only included official records of maltreatment and, therefore, only the more severe cases. The risk ratio in this study was 1.05, which suggests that there is no intergenerational transmission of physical abuse (Ertem et al., 2000)

The review of Ertem et al. (2000) described several methodological problems that exist in studies on intergenerational transmission of maltreatment which may explain differences in findings between these studies. Researchers have recognised many of these limitations (Newcomb & Locke, 2001; Pears & Capaldi, 2001; Shaffer, Huston, & Egeland, 2008; Kinard, 2004). There are three main methodological issues that have received the most attention in the literature and that may have a major influence on the findings regarding intergenerational transmission of maltreatment, namely the definition of maltreatment, type of sample and data collection (Miller-Perrin & Perrin, 1999). These issues can easily be adapted in future research and therefore, recognition of these methodological problems is important.

1.2.1 Definition of Maltreatment

The problem with the definition of maltreatment reflects the fact that there are no universally accepted definitions of maltreatment (Briere, 1992). For example, whereas some studies include regular spanking to define abuse (Kim, 2009), others define an act as abuse only when injuries were present (Pears & Capaldi, 2001). The consequence is that different definitions of maltreatment are used in research and this may lead to varying rates of intergenerational transmission. Higher rates of intergenerational transmission of maltreatment are found for parents with a history of severe maltreatment than parents with a history of less severe maltreatment (Pears and Capaldi, 2001; Zuravin, McMillen, DePanfilis, and Risley-Curtiss, 1996).

An important aspect of the definition of maltreatment is the distinction between different types of maltreatment. There are six generally acknowledged types of child maltreatment: emotional neglect, physical neglect, educational neglect, emotional abuse, physical abuse and sexual abuse (Miller-Perrin & Perrin, 1999; Newcomb & Locke, 2001). Some studies address one specific type of child maltreatment, while others fail to differentiate between the types and examine maltreatment as one construct. The result is that an incomplete picture is created or the heterogeneity of the subtypes is ignored (Heller, Larrieu, D'Imperio, & Boris, 1999; Newcomb & Locke, 2001) and this affects the rates that are found for intergenerational transmission of maltreatment. However, the differentiation between subtypes is important in the study of the intergenerational transmission of maltreatment. Kim (2009) compared the transmission of specific subtypes in a community sample. The study shows the correspondence between the type of maltreatment in childhood and the current type of maltreatment as a parent. Kim found that parents who have been neglected in their childhoods were 2.6 times as likely to be neglectful to their own children and 2 times as likely to be physically abusive than those without a history of neglectful parents. Parents who have been physically abused in their childhoods were 5 times as likely to be physically abusive and 1.4 times as likely to be neglectful towards their own children as parents who did not experience maltreatment in their own childhood. These results suggest a type-specific pattern of the intergenerational transmission of maltreatment. These patterns may show that the intergenerational transmission of maltreatment can be explained by social learning theory (Kim, 2009). According to social learning theory, children learn about parenting behaviours by observing and modelling their own parents (Bandura, 1977). Physically abused children would likely model this parenting style and become physically abusive towards their own children. However, another study concluded that there is no "type-to-type correspondence" for the transmission of child maltreatment (Pianta, Egeland, & Erikson, 1989). Pianta et al. (1989) followed 267 primiparous at risk mothers with their children from birth till six years old and examined various types of maltreatment. They found no type-specific patterns for the intergenerational transmission of maltreatment. For example, among 28 maltreating mothers with a history of physical abuse, eight were physically abusive, eight were neglectful, six were sexually abusive and six were emotionally unavailable to their own children. This finding may support attachment theory as an explanation for the intergenerational

transmission of maltreatment, and not social learning theory. This implies that more research is needed concerning the existence of type-specific patterns, because the findings could have theoretical implications.

1.2.2 Sampling

A second methodological concern is the type of participants in studies regarding the intergenerational transmission of maltreatment. A community sample offers a representative picture of the total population, but many participants are needed to obtain enough maltreatment cases. Therefore, many researchers make use of a risk-group, for example teenage mothers, low socio-economic status (SES) families, or abusive parents. However, using a group of abusive parents may cause an increased rate of transmission because participants who have been maltreated, but did not become perpetrators, are not represented in these studies (Kaufman & Zigler, 1987; Widom, 1989). The inclusion of a representative control group can reduce this problem.

Some prospective longitudinal studies base their results on the maltreatment of young children to reduce the costs of waiting for later results (Kim, 2009). In the study of Kim (2009) children were followed from grade 7 through 12 and interviewed again when they were 18-26 years old. At that time point, the children of these young adults were on average 2½ years old. The findings from this study are not a total representation of the intergenerational transmission of maltreatment, as there is a possibility that for some parents abusive parenting behaviour will only occur when their children are older.

In addition, many researchers include only cases referred by Child Protection Services (CPS). This sampling may be problematic as the clinical judgments are based on current and cultural standards (Shaffer, Huston, & Egeland, 2008) and there are no universal judgments. Therefore it is difficult to generalise these findings to different cultures and time periods. Cases used for research have to be based on more objective and broader operational definitions of abusive acts, in order to generalise the definitions to different cultures and time periods. Another problem with the use of CPS reports is the fact that only a small part of the total group of maltreated children is recognised and reported. Many incidents are not revealed or substantiated in childhood (Briere, 1992). The prevalence study of Alink et al. (2011) in the Netherlands shows that only about a quarter of all maltreatment cases are reported to CPS. The inclusion of sentinel's reports of child maltreatment can unveil some of those hidden incidents.

1.2.3 Measuring Maltreatment

Research has to be done in two generations and thus requires much complexity and a number of considerations for data collection. One of these considerations is the choice between prospective longitudinal versus retrospective cross-sectional data collection and another concern is the use of self-

report questionnaires versus face-to-face interviews. All of these methods have their own advantages and disadvantages. In what follows the considerations will be discussed individually.

Prospective versus retrospective. Prospective measures are collected at the time that events occur. This requires the researchers to follow the participants during several years, from childhood to adulthood. Longitudinal research is very time consuming and expensive (Widom, Raphael, & DuMont, 2004). The high attrition rate in longitudinal studies is also an important problem (Hardt & Rutter, 2004). Because current issues are more sensitive, prospective reports may lead to under-reporting because of the participant's fear that disclosure will lead to a maltreatment report (Kalichman, 1993). However, prospective self reports have the advantage of reduced bias or forgotten memories (Tajima, Herrenkohl, Huang, & Whitney, 2004). Prospective research also offers valuable information about long-term effects and causal relationships (Widom, Raphael, & DuMont, 2004).

Because of considerable issues of prospective longitudinal research, many researchers have to depend on cross-sectional retrospective data, whereby participants are requested to recollect past incidents. This methodology also has its own advantages and disadvantages. There are some concerns with the validity of retrospective reports (Shaffer, Huston, & Egeland, 2008; Hardt & Rutter, 2004). For example, events can be recalled selectively. This can be due to the fact that people tend to look for meaning of their current behaviour in their memories (Schacter, 2001), but retrospective reports might also be influenced by motivation, accuracy of memory, relationship with the perpetrator, and current psychopathology (Briere, 1992). Therefore, retrospective reports can lead to under-reporting or over-reporting of childhood maltreatment. The advantages of retrospective research are also important, because this methodology reduces the costs, is less time consuming, easier to sample and gives immediate results (Hardt & Rutter, 2004).

There are some studies that compared retrospective reports with later prospective reports (Tajima, Herrenkohl, Huang, & Whitney, 2004; Shaffer, Huston, & Egeland, 2008). These studies show that more cases of maltreatment were identified with prospective reports, but a combination of both methods provides a more complete picture of the maltreatment rate. Kendall-Tackett and Becker-Blease (2004) conclude that prospective findings are important, but retrospective reports include a part of the population that is missed by prospective measurement. Therefore, both methods are relevant and should complement each other.

Questionnaire versus interview. Many retrospective reports are measured with a questionnaire. A limitation of many studies is the measurement used to assess child maltreatment without knowledge about their reliability and validity. The benefits of questionnaires is that they are quick and easy to apply and to code. They also provide more anonymity, which may cause less distress for the participant and more disclosure (DiLillo, DeGue, Kras, Di Loreto-Colgan, & Nash, 2006). Interviews on the other hand, can provide more detailed information of traumatic experiences, for example maltreatment characteristics. Interviews also provide the opportunity to judge the childhood experiences in light of a more objective definition of maltreatment as the coding of maltreatment is

less dependent on the interpretation of the participant. Understanding and support by the interviewer may foster a greater degree of disclosure. However, participants may also refuse to share personal and sensitive information to someone they just met. The main disadvantage of an interview is that it is time-consuming and requires training of the interviewer. This makes questionnaires more efficient than interviews.

Martin, Anderson, Romans, Mullen, and O'Shea (1993) compared the report of sexual abuse administered by a questionnaire and an interview. They found an increased report of sexual abuse during interviews, but serious experiences by close family members were more often reported in the questionnaire. A later study of DiLillo et al. (2006) showed no effect of administration format on the disclosure of child sexual or physical abuse. The participants reported a preference for the computer format, followed by the paper-and-pencil questionnaire, and lastly the interview format. These results indicate that more research is needed to get more knowledge about the disclosure of participants in the different formats.

The different methodological issues show that a well designed study is important to investigate intergenerational transmission of child maltreatment. Using validated measurement is a critical part of this. The inclusion of multiple measurements of maltreatment will contribute to a well-designed research.

1.3 Current Study

Earlier research has shown that there are different theories that can explain the mechanisms underlying intergenerational transmission of maltreatment, such as social learning theory, attachment theory and family stress model. In addition, there are several methodological issues in studying intergenerational transmission that need to be addressed. Using multiple measurements to assess retrospective child maltreatment may give a more complete picture of the maltreatment than only using a single measure and may overcome the problem of under-reporting.

The current study will examine which theory can explain intergenerational transmission of maltreatment. The intergenerational transmission will be analysed by looking at mothers who currently maltreat their children and their retrospective reports of histories of maltreatment. The following research questions are examined:

1. Have currently maltreating mothers experienced more maltreatment in their childhoods compared to non-maltreating mothers?

Many studies showed that there is intergenerational transmission of maltreatment (Dixon, Hamilton-Giachritsis, & Browne, 2005; Kim, 2009; Newcomb & Locke, 2001; Zuravin, McMillen, DePanfilis, & Risley-Curtiss, 1996), so we expect to find support for these studies and show intergenerational transmission of maltreatment. We hypothesise that mothers who

currently maltreat their own children are more likely to have a history of maltreatment than mothers who do not report current maltreating behaviours.

2. Is there a type-to-type correspondence between current maltreating behaviour and a history of maltreatment?

If evidence is found for type-specific patterns of maltreatment, this would support social learning theory. This means that mothers are showing the same type of maltreating behaviour as they experienced from their own parents. When no support is found, this will still support attachment theory and family stress model. Because recent research showed type-specific patterns (Kim, 2009), we hypothesise that type-specific patterns will be found for the intergenerational transmission of maltreatment.

3. Is continuity of unemployment a moderator for the relationship between history of maltreatment and current maltreating behaviours?

If the transmission will only occur in the presence of a continuity of unemployment, support is found for the family stress model. If the transmission is still present when there is no continuity of unemployment, no support is found for the family stress model. The rate of intergenerational transmission is hypothesised to be higher when there is a continuity of unemployment than when no continuity of unemployment is found. This is hypothesised because research showed that economic hardship will lead to emotional distress and, therefore, affect harsh parenting behaviour (Conger et al., 1992).

2. Method

2.1 Sample

Mothers participated in a larger study on stress regulation of maltreating mothers. For the current study the data of 44 mothers were used, of whom 26 mothers were in the maltreating group and 18 mothers of the control group who did not maltreat their own children. The maltreating mothers received full-time or part-time family treatment at a psychiatric clinic for child and family problems. The control group included mothers whose children were in treatment for learning problems. For two mothers who received family treatment at a psychiatric clinic, mothers' current maltreatment was not confirmed. These two mothers were, therefore, excluded from the research sample. Finally, the control group consisted of 18 mothers and the maltreating group of 24 mothers.

The age of the maltreating mothers varied from 20 to 51 years ($M = 38.17$, $SD = 7.73$). They had an average of 2.38 children ($SD = 1.17$, $Min = 1$, $Max = 6$), ranging in age from 0 to 27 years ($M = 10.58$, $SD = 6.15$). 89.5% of the mothers were the biological mothers, 8.8% were the stepmothers, and 1.8% were the adoptive mothers of their children. The mothers grew up in a household of on average 3.39 children ($SD = 2.74$, $Min = 1$, $Max = 14$). The majority of the mothers had vocational education or partly secondary education (41.7%) as their highest education with a diploma. The average age of the mother in the control group was 45.50 ($SD = 5.71$, $Min = 33$, $Max = 54$). Their number of children ranged from 1 to 5 ($M = 2.44$, $SD = 0.92$), with a mean age of 14.50 ($SD = 5.16$, $Min = 3$, $Max = 27$). All of the mothers were the biological mothers of their children. The mothers grew up in a household of on average 2.83 children ($SD = 1.34$, $Min = 1$, $Max = 6$). The majority of the mothers from the control group had secondary education (38.9%) as their highest education with a diploma.

The mothers in the maltreatment group and the control group did not differ in number of children ($t(40) = 0.21$, $p = .84$), number of children in the household they grew up in ($t(39) = -0.79$, $p = .43$), their relationship with their children ($\chi^2(2, N = 102) = 5.03$, $p = .08$), and their educational level ($\chi^2(5, N = 41) = 8.01$, $p = .16$). The mothers in the control group were older ($t(40) = 3.39$, $p < .01$) and they also had older children ($t(101) = 3.40$, $p < .01$) compared to the mothers in the maltreatment group.

2.2 Measurements

2.2.1 Current Child Maltreatment

Maltreatment Classification System. The Maltreatment Classification System (MCS; Barnett, Manly, & Cicchetti, 1993) was used to code medical records of the mother-child dyads who were currently involved in part-time or full-time family treatment. Maltreatment was identified on eight subscales: physical abuse, sexual abuse, physical neglect - failure to provide care, physical neglect - lack of

supervision, emotional abuse, emotional neglect, witness domestic violence and moral/legal-educational maltreatment. Only acts with a severity of two or higher were coded as maltreatment. To measure the inter-rater reliability between 4 coders, 15 medical records were coded. The average Cohen's Kappa was .73, ranging from .42 to 1.00. To compare the subtypes of current child maltreatment with the subtypes from the Childhood Trauma Questionnaire – Short Form and the Adult Attachment Interview, both physical neglect scales were combined to one physical neglect scale and an emotional maltreatment subscale was constituted by combining the subscales emotional abuse, emotional neglect and witness domestic violence. The subscales sexual abuse and moral/legal-educational maltreatment excluded from further analysis, because none of the participants had a score on this subscale.

Maternal Maltreatment Classification Interview. To make sure that mothers in the control group did not maltreat their own children, the Maternal Maltreatment Classification Interview (MMCI; Cicchetti, Toth, & Manly, 2003) was administered. The MMCI is a semi-structured interview about experiences in the life of their child that could have been difficult for them to deal with. The questions were designed to indirectly assess maltreatment followed by specific questions to gather more specific information about the event. The interview was coded using the Maltreatment Classification System (MCS; Barnett, Manly, & Cicchetti, 1993). The inter-rater reliability was measured between 2 coders and based on 12 interviews. The Cohen's Kappa's ranged from .63 to 1.00 with an average of .81.

2.2.2 History of Child Maltreatment

Childhood Trauma Questionnaire - Short Form. The Childhood Trauma Questionnaire (CTQ-SF; Bernstein et al., 2003) is a 27-item self-report questionnaire measuring childhood maltreatment. The questionnaire consists of five subscales: emotional neglect, physical neglect, emotional abuse, physical abuse, and sexual abuse. All subscales, except 'Sexual Abuse', contain five items rated on a 5-point scale from 1 (never true) to 5 (very often true). The 'Sexual Abuse' subscale consists of four items rated on a 5-point scale, because the Dutch version of the CTQ-SF was used. For this study, the moderate to severe cut scores for each type of maltreatment have been used (Bernstein & Fink, 1998). The cut score for sexual abuse was adapted to the Dutch version of the CTQ-SF. This means that participants were defined to have experienced maltreatment if the sum scores were higher than 9 for physical abuse, 12 for emotional abuse, 5 for sexual abuse, 9 for physical neglect and 14 for emotional neglect. Good reliability was shown for each subscale: $\alpha=.87$ for physical abuse, $\alpha=.87$ for emotional abuse, $\alpha=.89$ for sexual abuse, $\alpha=.68$ for physical neglect, and $\alpha=.91$ for emotional neglect. The subscales emotional neglect and emotional abuse were combined in one subscale emotional maltreatment in order to compare the findings with the Adult Attachment Interview.

Adult Attachment Interview. The Adult Attachment Interview (AAI) was used as a retrospective self-report interview of child maltreatment. The AAI is a commonly used structured interview designed to measure attachment representation in adults, by questions about childhood experiences (George, Kaplan, & Main, 1985). Although this interview is not originally designed to measure childhood maltreatment, it consists of questions about injury, illness, loss, and maltreatment. This will make the assessment of child maltreatment possible. The AAI can also provide information about maltreatment characteristics, for example severity, frequency, duration, age of onset and perpetrator. To assess maltreatment status, not only the answers to the maltreatment questions but also answers to all of the other questions is used. This makes it possible to code events of abuse or neglect that were not perceived or labelled by the participant as maltreatment (Shaffer, Huston, & Egeland, 2008). The interview was coded according to an adapted version of the Maltreatment Classification System (MCS; Barnett, Manly, & Cicchetti, 1993). Maltreatment was identified on six subscales: physical abuse, sexual abuse, physical neglect - failure to provide care, physical neglect - lack of supervision, emotional maltreatment and moral/legal-educational maltreatment. Both subscales of physical neglect were combined to one subscale physical neglect. For this study only acts with a severity of two or higher were coded as maltreatment. To determine the inter-rater reliability between the coder and the expert, 10 AAI's were coded: for physical abuse $r = .79$, for sexual abuse $r = .91$, for physical neglect $r = .83$ and for emotional maltreatment $r = .76$.

2.2.3 Continuity of Unemployment

Continuity of unemployment was analysed by measuring the current employment status and the employment status of the participants' mothers. The employment status was divided into two groups: employed or unemployed. The employment status of their mothers was coded using the AAI with the question: 'what did your family do for a living?'. Their own employment status was asked in the interview about their current family situation. Continuity of unemployment was assessed by comparing their current employment status to the employment status of their mothers. When there was a continuity of unemployment, a code 1 was given. Participants were coded as 0 when there was no continuity of unemployment.

2.3 Procedure

The current study is part of a larger study on neurobiological stress regulation of maltreating mothers. Maltreating mothers were informed about the study by their therapists at the beginning of their treatment. The mothers in the control group were informed by research staff about the treatment when they visited the centre with their children. All mothers could voluntarily decide to participate in the study. Thereafter, two appointments were made with the mothers.

During the first appointment mothers were first asked to fill out a consent form for access to the medical records (only for maltreating mothers), determination of DNA and statement of voluntary

participation for the study. Thereafter, mothers had to do three tasks on the computer while listening to different crying sounds of babies. During those computer tasks heart rate and skin conductance were measured. In addition, saliva was collected to measure alpha amylase and cortisol. After the tasks on the computer mothers answered some questions about their family situation. For the control mothers the appointment ended with the Maternal Maltreatment Classification Interview (MMCI). All mothers were asked to collect some saliva at home for baseline measurements.

During the second appointment mothers were interviewed with the Adult Attachment Interview (AAI). Thereafter, mothers filled out the Childhood Trauma Questionnaire-Short Form (CTQ-SF) and the Parent-Child Conflict Tactics Scale (PCCTS). Mothers were also asked to collect some saliva for DNA determination. At the end of this appointment mothers received a fee and travel expenses.

The current study will focus on the intergenerational transmission of maltreatment and will, therefore, only use the data from the MMCI, medical records, interview about the family situation, AAI, and CTQ-SF.

2.4 Data-inspection

In order to check for univariate and bivariate assumptions, data-inspection was done. By utilising Missing Value Analysis (MVA) missing data was analysed. These analyses were used to check for patterns in the missing data and to compare the group with missing data to the group without missing data. Decisions were made for the inclusion of participants with missing data. Correlations between all subtypes of maltreatment were calculated in order to check for multicollinearity. Distribution of the data was checked by using frequency tables, because only categorical variables were used for this study.

2.5 Data-analysis

Different statistical analyses were used in order to assess the hypotheses outlined in the introduction. To examine if there is intergenerational transmission of maltreatment, chi-square (χ^2) test of independence was conducted. The independent variable was current maltreatment. This variable was transformed into two categories: 'maltreatment' and 'no maltreatment'. The dependent variable was history of maltreatment, and this variable was also transformed into two categories: 'maltreatment' and 'no maltreatment'. The analysis will be repeatedly conducted for the different measurements for history of maltreatment: AAI, CTQ-SF and a combined measurement. For the combined measurement the scores on the AAI and CTQ-SF were combined and, therefore, this was a complementary measurement for history of child maltreatment.

To answer the second research question (Is there a type-to-type correspondence between current maltreating behaviour and a history of maltreatment?), a chi-square test of independence was conducted for each type of maltreatment. The independent variable (current maltreatment) was

transformed into three separate variables: physical abuse, physical neglect, emotional maltreatment. For each variable a score of 0 (did not happen) or 1 (happened) could be assessed. The dependent variable (history of maltreatment) was transformed into four separate variables: physical abuse, sexual abuse, emotional maltreatment and physical neglect. These variables were also dichotomised into 0 (did not happen) or 1 (happened). This analysis was again repeated for each measurement of history of maltreatment (AAI, CTQ-SF and a combined measurement). Standardised residuals were used to examine which cell was significantly different. A multivariate logistic regression analysis was conducted in order to control for other subtypes of history of maltreatment.

In order to examine the third research question (Does intergenerational transmission of maltreatment only occur when there is continuity of unemployment?) a logistic regression analysis was conducted with the interaction variable 'history of maltreatment x continuity of unemployment'. A dichotomised variable of 'current maltreatment' and 'history of maltreatment' was used with the categories: 'maltreatment' and 'no maltreatment'. Continuity of unemployment was also transformed in two categories: 'continuity of unemployment' and 'no continuity of unemployment'. To examine if a moderation is present, the significance level of the interaction variable was analysed.

3. Results

In the following sections the results from the data inspection and data analysis will be presented. First, the results from the data inspection will be described, followed by the descriptive statistics of the variables current maltreatment, history of maltreatment (measured by AAI and CTQ-SF) and continuity of employment. Thereafter, the results from the data analysis used to answer each research question will be displayed.

3.1 Data Inspection and Descriptive Statistics

The Missing Value Analysis showed some missing values for the variable history of maltreatment (on both measurements) and continuity of employment. Two cases had missing values on the AAI and CTQ-SF, and were excluded from further data inspection and analysis. There were four cases with missing values on continuity of employment and one case with missing values on the AAI as well as continuity of employment. No pattern has been found in the cases with missing values and there is no indication that these cases form a specific group. Due to the fact that no pattern was found for the cases with missing values and this study included a small sample, the cases with missing values were only included in further analyses with no missing values on those variables.

The correlation coefficients between all subtypes of maltreatment are presented in Table 1. The bold numbers represent the correlations between the subtypes of the same instrument. The correlation coefficients show that the subtypes from the same instrument are moderately to highly correlated. The numbers in the grey cells represent the correlations between the same subtypes of history of maltreatment measured with a different instrument. The same subtypes of maltreatment measured with the AAI and CTQ-SF were highly correlated for both research groups ($r > .42, p < .01$), except for physical neglect ($r = .34, p < .01$ for the maltreatment group and $r = -.09, p = .74$ for the control group).

Table 1

Intercorrelations for Subtypes of Current Maltreatment and History of Maltreatment for the maltreatment group ($N = 24$) and the control Group ($N = 18$)

Instrument	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Current Maltreatment															
1. Physical Abuse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Emotional Maltreatment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Physical Neglect	-.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AAI Retrospective Maltreatment															
4. Physical Abuse	-.07	—	.13	—	—	—	—	—	—	—	—	—	—	—	—
5. Sexual Abuse	-.27	—	-.21	.31	—	.06	.54 *	—	.54 *	.32	-.16	—	<i>1.00</i> **	<i>.06</i>	<i>.20</i>
6. Emotional Maltreatment	-.08	—	-.04	.25	.40	—	.39	—	.39	.57 *	-.22	—	<i>.06</i>	<i>1.00</i> **	<i>.06</i>
7. Physical Neglect	-.07	—	-.08	.74 **	.59 **	.25	—	—	<i>1.00</i> **	.69 **	-.09	—	<i>.54</i> *	<i>.39</i>	<i>.54</i> *
CTQ-SF Retrospective Maltreatment															
8. Physical Abuse	-.22	—	-.13	.74 **	.50*	.34	.74**	—	—	—	—	—	—	—	—
9. Sexual Abuse	.05	—	-.28	-.12	.44 *	.39	.11	.04	—	.69 **	-.09	—	<i>.54</i> *	<i>.39</i>	<i>.54</i> *
10. Emotional Maltreatment	-.34	—	-.08	.39	.29	.42 *	.18	.41 *	-.04	—	-.13	—	<i>.32</i>	<i>.57</i> *	<i>.32</i>
11. Physical Neglect	-.16	—	.09	.34	.69**	.58 **	.34	.31	.40	.15	—	—	<i>-.16</i>	<i>-.22</i>	<i>.79</i> **
Combined Retrospective Measurement															
12. Physical Abuse	-.06	—	.10	<i>1.00</i> **	.31	.25	.74**	.74**	-.10	.35	.35	—	—	—	—
13. Sexual Abuse	.00	—	-.18	.06	.63**	.46*	.28	.27	.91**	.06	.52**	.07	—	<i>.06</i>	<i>.20</i>
14. Emotional Maltreatment	-.20	—	.00	.16	.34	.83**	.16	.27	.45**	.65**	.45*	.15	.50 *	—	.06
15. Physical Neglect	-.05	—	.09	.66**	.57**	.52*	.66**	.49*	.26	.15	.83**	.66 **	.37	.37	—

Note: All variables were coded as 1 = maltreatment, 0 = no maltreatment. The italic numbers above the diagonal represent the intercorrelations in the control group, the numbers under the diagonal represent the intercorrelations in the maltreatment group. The bold numbers represent the intercorrelations between the subtypes of history of maltreatment assessed with the same instrument. The grey cells represent the intercorrelations between the same subtypes using different instruments. No correlations for current maltreatment could be assessed for the control group, as they did not show current maltreating behaviour. No correlations could be assessed for current emotional maltreatment, as all mothers in the maltreatment group showed current emotional maltreatment.

* $p < .05$. ** $p < .01$.

The distributions of the variables are presented in Table 2. Based on the medical records (coded with the MCS), the following maltreating acts were present in the current mother-child relationship of the maltreating mothers: 25% physically abused, 100% emotionally maltreated and 50% physically neglected their children.

Looking at the maltreatment experienced in mothers' childhoods, emotional maltreatment was the most common type of abuse experienced for both research groups. When both retrospective measurements were combined (AAI and CTQ-SF), physical abuse was the least common type of abuse experienced in childhood for the maltreatment group (21%) and the control group (0%). For physical abuse more cases were identified using the AAI ($N = 5$) compared to the CTQ-SF ($N = 3$) for the maltreatment group. The CTQ-SF did not complement the findings with cases not identified by the AAI, because the combined measurement also identified five cases. For sexual abuse more cases of maltreatment were recognised for the control group using the AAI ($N = 3$) compared to the CTQ-SF ($N = 1$). For the maltreating group, more cases of sexual abuse were identified using the CTQ-SF ($N = 7$) compared to the AAI ($N = 4$). However, the AAI complemented the cases of the CTQ-SF for the maltreating group, because the combined measurement identified eight cases of sexual abuse. For emotional maltreatment more cases were identified using the AAI ($N = 18$) than the CTQ-SF ($N = 13$). The CTQ-SF complemented the findings from the AAI for emotional maltreatment of the maltreating mothers, because the combined measurement identified 21 cases of emotional maltreatment. For physical neglect more cases were identified with the CTQ-SF ($N = 9$) compared to the AAI ($N = 6$). The combined measurement identified 12 cases and therefore, the AAI complemented the cases identified with the CTQ-SF. Furthermore, for both samples the majority did not experience a continuity of unemployment (58% of the maltreatment group and 83% of the control group).

Table 2

Prevalence of Current Maltreatment, History of Maltreatment (AAI, CTQ-SF, and combined measurements) and Continuity of Unemployment in the Total Sample ($N = 42$), the Maltreatment Group ($N = 24$) and the Control Group ($N = 18$)

	Total Sample		Maltreatment Group		Control Group		χ^2
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	
Current Maltreatment							
Physical Abuse	6	14	6	25	0	0	
Emotional Maltreatment	24	57	24	100	0	0	
Physical Neglect	12	29	12	50	0	0	
Total Maltreatment	24	57	24	100	0	0	
AAI Retrospective Maltreatment							
Physical Abuse	5	12	5	21	0	0	
Sexual Abuse	7	17	4	17	3	17	
Emotional Maltreatment	18	43	13	54	5	28	
Physical Neglect	6	14	5	21	1	6	
Total Maltreatment	21	50	14	58	7	39	1.95
CTQ-SF Retrospective Maltreatment							
Physical Abuse	3	7	3	13	0	0	
Sexual Abuse	8	19	7	29	1	6	
Emotional Maltreatment	13	31	11	46	2	11	
Physical Neglect	9	21	7	29	2	11	
Total Maltreatment	20	48	16	67	4	22	8.15**
Combined Retrospective Measurement							
Physical Abuse	5	12	5	21	0	0	
Sexual Abuse	11	26	8	33	3	17	
Emotional Maltreatment	21	50	16	67	5	28	
Physical Neglect	12	29	9	38	3	17	
Total Maltreatment	26	62	17	71	9	50	1.89
Continuity of unemployment							
No	29	69	14	58	15	83	
Yes	8	19	6	25	2	11	

Note: Categories of current maltreatment and history of maltreatment (AAI, CTQ-SF and combined measurements) are not mutually exclusive. *N* refers to the number of mothers. χ^2 -test represents the differences between the control group and the maltreatment group on history of maltreatment.

** $p < .01$

3.2 Intergenerational Transmission of Maltreatment

To examine if mothers who are currently maltreating their children are more likely to have a history of child maltreatment than mothers who are currently not maltreating their children, a chi-square test of independence (χ^2) was conducted. The test was repeatedly conducted with the Adult Attachment Interview (AAI), Childhood Trauma Questionnaire- Short Form (CTQ-SF) and a combination of AAI and CTQ-SF as a measurement for history of maltreatment. The results of the chi-square tests are illustrated in Table 2. A significant relationship was found for history of child maltreatment (measured with CTQ-SF) and current maltreatment ($\chi^2 (1, N = 42) = 8.15, p < .01$). The standardised residuals showed that the majority of the maltreatment group experienced maltreatment in their childhoods (67%), while for the control group only 22% had an experience of maltreatment in their childhoods. The ratio between current maltreatment and history of maltreatment (measured with CTQ-SF) for the mothers in the maltreatment group was 7 times as high as the ratio for the mothers in the

control group (OR = 7.00, 95% CI = 1.73 - 28.34). The relationship between current maltreatment and history of maltreatment measured with AAI or a combined measurement were also in the direction of the hypothesis but no significance was reached (successively, $\chi^2 (1, N = 41) = 1.95, p = .16$ and $\chi^2 (1, N = 42) = 1.89, p = .17$). Figure 1 also illustrates the differences in findings between the measurements. While the maltreatment group reported more cases of experienced maltreatment with the CTQ-SF, for the control group more cases of experienced maltreatment were identified using the AAI. When both measurements were combined, more cases of maltreatment were coded for each research group compared to both measurements separately. This also illustrates the complementing effect of the AAI and CTQ-SF and shows that some cases were only identified with one single measurement.

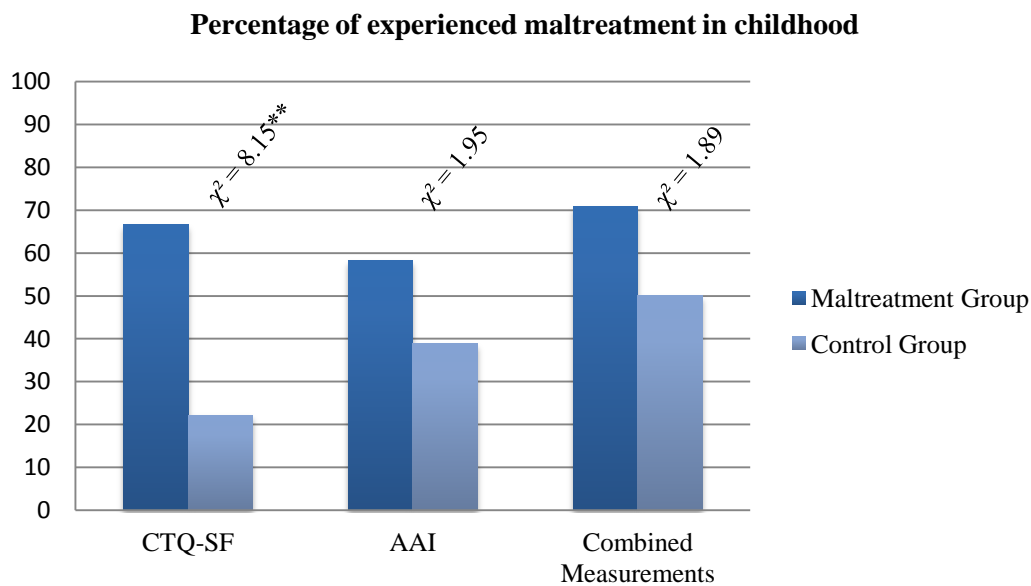


Figure 1

Chi-square test for experienced maltreatment in childhood between the maltreatment group ($N = 24$) and the control group ($N = 18$) for each type of measurement

3.3 Type-Specific Transmission of Maltreatment

In order to test if support is found for type-specific patterns of the intergenerational transmission of maltreatment, a chi-square test of independence (χ^2) was conducted for the maltreatment group. The results are presented in Table 2. The chi-square test of independence could not be conducted for Emotional Maltreatment, because all maltreating mothers were showing emotionally maltreating acts. The distributions of childhood maltreatment for the maltreating group can be found in Table 2. The analyses were repeatedly conducted with the different measurements for retrospective childhood maltreatment and for each type of current maltreatment. Table 3 illustrates that there was no significant association between experienced and current physical abuse (all $ps > .10$). Physically abusive mothers did not differ significantly on any type of maltreatment experienced in childhood from mothers who were not physically abusive. There was also no significant association found

between physically neglecting mothers and the type of maltreatment experienced in childhood (all $ps > .18$). Mothers who were physically neglecting to their children did not differ in type of maltreatment experienced in childhood from mothers who did not show physically neglecting maltreatment acts. Because of multicollinearity, a multivariate logistic regression analysis could not be performed to answer the second research question.

Table 3

Type-Specific Intergenerational Transmission of Maltreatment for the Maltreatment Group ($N = 24$)

Instrument	Physical Abuse		χ^2 -test		Physical Neglect		χ^2 -test	
	Yes $N = 6$	No $N = 18$	χ^2	p	Yes $N = 12$	No $N = 12$	χ^2	p
AAI	1 (17%)	4 (24%)	0.12	.73	2 (18%)	3 (25%)	0.16	.69
CTQ-SF	0 (0%)	3 (17%)	1.14	.29	4 (33%)	3 (25%)	0.20	.65
Combined Measurement	1 (17%)	4 (22%)	0.08	.77	5 (42%)	4 (33%)	0.18	.67

Note: None of the χ^2 values approached significance.

3.4 Interaction of History of Maltreatment and Continuity of Unemployment

To examine the relationship between current maltreatment, history of maltreatment and continuity of unemployment, a three-way contingency table was generated and repeated for each type of measurement for history of maltreatment (AAI, CTQ-SF and combined measurement). Table 4 represents the three-way contingency table for continuity of unemployment, history of maltreatment and current maltreatment (repeated for each type of measurement for history of maltreatment). For the mothers who did experience continuity of unemployment, 12.5% (when history of maltreatment was measured with AAI or combined measurement) or 25.0% (when history of maltreatment was measured with CTQ-SF) showed intergenerational transmission of maltreatment. For the mothers without a continuity of unemployment, 35.5% (when history of maltreatment was measured with AAI), 38.7% (when history of maltreatment was measured with CTQ-SF) and 25.8% (when history of maltreatment was assessed with a combined measurement) experienced intergenerational transmission of maltreatment.

Table 4

Three-Way Contingency Table of Current Maltreatment by History of Maltreatment by Continuity of Unemployment ($N = 39$)

Continuity of unemployment	History of Maltreatment		Current Maltreatment		
			Yes	No	Total
No	AAI				
		Yes	11 (35.5%)	6 (19.4%)	17 (54.8%)
		No	6 (19.4%)	8 (25.8%)	14 (45.2%)
		Total	17 (54.8%)	14 (45.2%)	31 (100.0%)
Yes			Yes	No	Total
		Yes	1 (12.5%)	3 (37.5%)	4 (50.0%)
		No	1 (12.5%)	3 (37.5%)	4 (50.0%)
		Total	2 (25.0%)	6 (75.0%)	8 (100.0%)
No	CTQ-SF		Yes	No	Total
		Yes	12 (38.7%)	5 (16.1%)	17 (54.8%)
		No	5 (16.1%)	9 (29.0%)	14 (45.2%)
		Total	17 (54.8%)	14 (45.2%)	31 (100.0%)
Yes			Yes	No	Total
		Yes	2 (25.0%)	3 (37.5%)	5 (62.5%)
		No	0 (0.0%)	3 (37.5%)	3 (37.5%)
		Total	2 (25.0%)	6 (75.0%)	8 (100.0%)
No	Combined Measurement		Yes	No	Total
		Yes	8 (25.8%)	4 (12.9%)	12 (38.7%)
		No	9 (29.0%)	10 (32.3%)	19 (61.3%)
		Total	17 (54.8%)	14 (45.2%)	31 (100.0%)
Yes			Yes	No	Total
		Yes	1 (12.5%)	3 (37.5%)	4 (50.0%)
		No	1 (12.5%)	3 (37.5%)	4 (50.0%)
		Total	2 (25.0%)	6 (75.0%)	8 (100.0%)

To test whether there is a significant interaction between history of maltreatment and continuity of unemployment in the prediction of current maltreatment, a logistic regression analysis was performed and repeated for each measurement of history of maltreatment. The results of the logistic regression analysis are presented in Table 5. The logistic regression analysis for CTQ-SF was not interpretable, because one of the cells was empty (Table 4). None of the remaining interaction variables approached significance (all $ps > .59$). Mothers who currently maltreat their own children and experienced a history of maltreatment did not differ in continuity of unemployment from mothers who did not show intergenerational transmission of maltreatment. It has to be noted that the cells were quite small, which limits the power to detect significant effects.

Table 5Logistic Regression Analysis Predicting Current Maltreatment ($N = 37$)

Variable	B	SE	OR	95% CI		Wald Statistic	<i>p</i>
				Lower	Upper		
AAI Retrospective Measurement							
History of maltreatment	0.98	0.77	2.67	0.59	12.04	1.63	.20
Continuity unemployment	1.61	1.27	5.00	0.42	59.66	1.62	.20
History maltreatment *							
Continuity unemployment	-0.98	1.81	0.38	0.01	12.90	0.30	.59
Combined Retrospective Measurement							
History of maltreatment	1.05	0.79	2.86	0.61	13.34	1.78	.18
Continuity unemployment	1.79	1.31	6.00	0.46	77.75	1.88	.17
History maltreatment *							
Continuity unemployment	-1.05	1.81	0.35	0.01	12.21	0.34	.56

Note: None of the Wald statistics approached significance.

4. Discussion

The current study tried to shed light on intergenerational transmission of maltreatment using the social learning theory, attachment theory and the family stress model. Three research questions were tested using different measurements for history of maltreatment. 1: Have currently maltreating mothers experienced more maltreatment in their childhoods compared to non-maltreating mothers? The hypothesis was that mothers who currently maltreat their own children are more likely to have a history of maltreatment than mothers who did not currently show maltreating behaviours towards their children. 2: Is there a type-to-type correspondence between current maltreating behaviour and a history of maltreatment? The hypothesis was that maltreating mothers experienced the same type of maltreatment in their childhoods as they currently show towards their own children. 3: Is continuity of unemployment a moderator of the relationship between history of maltreatment and current maltreating behaviours? We hypothesised that intergenerational transmission of maltreatment only occurred when there was a continuity of unemployment show by the participants and their own mothers.

4.1 Intergenerational Transmission of Maltreatment

Mothers in the maltreating group reported significantly more cases of history of maltreatment than mothers from the control group. This result is consistent with the hypothesis. However, this result was only significant when history of maltreatment was measured by the Childhood Trauma Questionnaire-Short Form (CTQ-SF). Mothers who currently maltreat their own children were more likely to have a history of child maltreatment than mothers who were currently not maltreating their own children. When history of maltreatment was measured with the Adult Attachment Interview (AAI) or a combined measurement of the CTQ-SF and the AAI, the results did not reach significance, but they were in the direction of the hypothesis. More maltreatment was reported by the control group and less maltreatment was reported by the maltreatment group when AAI was compared to the CTQ-SF. Therefore, the difference between the maltreatment group and the control group did not reach significance when AAI was used as a measurement for history of maltreatment. The differences in disclosure can be explained by the formats of the measurements. The AAI is not originally designed to measure maltreatment; the questions are about childhood experiences in general. The coding of maltreatment is based on the answers given on all of the questions and not only the questions about maltreatment experiences. Therefore, maltreatment acts can be coded even though the participants did not label the acts as maltreatment. The questionnaire, on the other hand, consists of specific questions about child maltreatment acts. Therefore, the participants have to label the parenting behaviour as maltreatment themselves. The mothers in the maltreatment group may be more likely to report experiences of maltreatment in order to seek meaning for their current maltreating behaviour (Schacter, 2001). Therefore, they may report more maltreatment in the questionnaire, but fewer

experiences of maltreatment are identified when maltreatment is more objectively coded with the interview. However, the mothers in the control group do not need to look for meaning for their current maltreating behaviour. They may be less likely to label childhood experiences as maltreatment, for example, in order to protect their parents. Therefore, more cases of maltreatment may be reported when an interview was used compared to a questionnaire. Previous studies did not find clear differences in disclosure between a questionnaire and an interview (DiLillo, DeGue, Kras, Di Loreto-Colgan, & Nash, 2006). However, the study of DiLillo et al. (2006) did not compare findings of a maltreatment group and a control group. No clear differences in disclosure for the specific subtypes were found in the current study. This means that no specific type of maltreatment was reported more in a specific measurement. Therefore, more research is needed to draw clear conclusions about the disclosure between different measurements. Even though the AAI differentiated less between maltreatment experiences in the maltreatment group and the control group, the findings were in the direction of intergenerational transmission of maltreatment. The small sample size also limited the power to find significant effects.

The 67% rate of intergenerational transmission found in this study is much higher than the estimated of 30% (Buchanan & Oliver, 1977; Kaufman & Zigler, 1987). However, these rates are not comparable, because this study looked backwards by comparing maltreating mothers with non-maltreating mothers. While a minority of the maltreated children will go on to maltreat their own children, the majority of maltreating parents have experienced a history of child maltreatment. The focus on both study designs is different and this might explain the higher rate of intergenerational transmission.

4.2 Type-Specific Transmission of Maltreatment

The results did not show any type-to-type correspondence between current maltreatment and history of maltreatment (measured with the CTQ-SF, AAI and a combined measurement for history of maltreatment). Mothers who currently physically abuse their own children did not experience a history of physical abuse more than any other type of abuse. The same result was found for mothers who physically neglect their own children. A type-to-type correspondence could not be examined for mothers who emotionally maltreat their own children, because there were no mothers in the maltreating group who did not emotionally maltreat their own children. These findings were not in line with the hypothesis and, therefore, the hypothesis was rejected. The findings also do not support the social learning theory. According to this theory mothers treat their own children the same way as they have been treated by their parents (Bandura, 1977). Support for the social learning theory, therefore, requires physically abusive mothers to have experienced a higher rate for history of physical abuse than physically neglectful mothers. This study is in line with other studies that also did not find support for this theory (Pianta, Egeland, & Erikson, 1989; Zuravin, McMillen, DePanfilis, & Risley-Curtiss, 1996). Parents who have been maltreated themselves know the negative effects of their own

experienced maltreatment and, therefore, might try not to show that same type of behaviour towards their own children. However, they might also lack a role model that showed good parenting behaviour and strategies to deal with stressful situations. This can explain why these parents still participate in maltreating behaviour but are not always showing the same type of maltreating behaviours as they experienced as a child.

Contrary to the findings of this study and earlier studies (Pianta, Egeland, & Erikson, 1989; Zuravin, McMillen, DePanfilis, & Risley-Curtiss, 1996), the study of Kim (2009) did find a type-specific pattern for intergenerational transmission of maltreatment. There are some limitations to this study that can question the findings for these type specific patterns. Neglectful parenting was measured by two questions and physically abusive parenting was measured by only one question. Participants were identified as being abusive when they hit or neglected their children once or more. Severity of the maltreating acts was not taken into account. Therefore, the findings of the study by Kim (2009) do not only represent maltreatment but also harsh parenting. More studies are necessary to find support for the social learning theory.

4.3 The Role of Continuity of Unemployment

There was no significant interaction effect of history of maltreatment and continuity of unemployment in predicting current maltreatment. This means that the rate of intergenerational transmission of maltreatment was not higher for mothers who experienced a continuity of unemployment than for mothers who did not experience a continuity of unemployment. This finding was not consistent with the hypothesis and therefore, the hypothesis had to be rejected. This study did not find support for the family stress model, in which intergenerational transmission of maltreatment can be explained by the continuity of unemployment in both generations (Conger et al., 1992). The current study examined unemployment by looking at the employment status of the mothers, because employment status of fathers was not available. However, a few decades ago in most families the mother had to take care of the children, while the father was working. Therefore, the employment status of the mother might not have been a good indication of income related stress for the mother. In future research the employment status and income of both parents should be taken into account. Another explanation why employment status of mothers in the first generations might not have been a good measurement is related to maltreatment experienced in history. For the measurement of history of maltreatment with the AAI, maltreatment acts from both parents were identified. When history of maltreatment was measured with the CTQ-SF the perpetrator was not known. To find support for the family stress model, the employment status of the parent who executed the maltreatment acts has to be known. Therefore, the measurements should identify the perpetrators and their employment status should be examined. The perpetrators and their employment status are not known in this study and this might explain why no support was found for the family stress model.

4.4 Limitations

Along with limitations mentioned in the previous section, there are some more limitations that can clarify the results found in this study. First, the sample size was small, 18 mothers in the control group and 24 mothers in the maltreating group, and therefore the power to detect significant effects was limited. For the first research question trends were visible in the direction of the hypothesis, but they did not reach significance. Because of the small sample size multivariate logistic regression analysis could not be conducted for the second research question and, therefore, scores on different subtypes of a history of maltreatment could not be compared in one analysis.

A second limitation is the type of control group used in this study. The control group consisted of mothers whose children are in therapy for educational problems. This does not always include family problems, like the mothers in the maltreating group experience. The mothers in the control group were also more employed and, therefore, had a higher social economic status. This social economic status and the absence of family problems may account for their non-maltreating behaviour instead of their history of maltreatment. To rule out this explanation, the control group should exist of mothers who do not show maltreating behaviours but also experience some family problems and have the same social economic status as maltreating mothers.

Third, this study relied on retrospective reports of childhood maltreatment. As mentioned in the introduction, longitudinal studies have the advantage of offering valuable information about causal relationships (Widom, Raphael, & DuMont, 2004). However, because of time and money issues many researchers have to rely on cross-sectional retrospective studies. Retrospective data can consist of biases, due to forgotten memories (Tajima, Herrenkohl, Huang, Whitney, 2004) or a participant's willingness to report (Johnson & Richter, 2004). In this study differences might be found between both research groups in their memory or willingness to report because of the treatment they get. Even though we tried to involve the mothers in this study at the beginning of their treatment, some mothers were tested after a number of treatment sessions. In these therapeutic sessions with psychologists, the childhoods of the mothers were also discussed. Therefore, these mothers may have remembered more experiences of maltreatment when they looked for meaning of their current behaviour (Schacter, 2001). The mothers in the control group did not get these therapeutic sessions and therefore, might remember less experiences of maltreatment in their childhood. This may have influenced the findings for the differences in findings of the history of maltreatment between the maltreating group and the control group.

4.5 Future Research and Implications

The current study focused on three theories to clarify the intergenerational transmission of maltreatment and did not find support for two of them. However, there is a possibility that intergenerational transmission of maltreatment cannot be explained by just one theory. For example,

genes, physiological hyper-responsiveness, attachment and psychopathology may all influence each other in the explanation of the intergenerational transmission of maltreatment. Therefore, future research should focus more on multiple theories and include them in one model. It is also important to include fathers in future research. This study only included mothers, but the types of maltreatment that are experienced or executed might be different for fathers. Intergenerational transmission of maltreatment might also be explained by different models for each gender. The inclusion of fathers can give a broader picture of intergenerational transmission of maltreatment. Another element of research that needs more attention is the assessment of retrospective history of maltreatment. The current study showed that an interview and a questionnaire both detected different cases of maltreatment. This showed that using multiple measurements can unveil cases of child maltreatment that would not be detected when only one measurement was used. It is also important to use measurements that give more information about maltreatment characteristics. In this research severity, frequency and type of perpetrator were only available when history of maltreatment was measured using the Adult Attachment Interview (AAI). For example, type of perpetrator, severity or frequency of experienced maltreatment could influence the rate of transmission. Therefore, future research should include both interview and questionnaire measurements which also examine additional information about maltreatment characteristics to get a broader view of the intergenerational transmission of maltreatment.

For the scientific field this research showed that more attention is needed for attachment theory as a clarification for the intergenerational transmission of maltreatment as the social learning theory and the family stress model did not explain this transmission. The current study also showed the importance of using multiple measurements for retrospective history of maltreatment. For the practical field this means that therapies should not be focused on preventing the same type of maltreating behaviour as the parents have experienced in their own childhood. However, it is important to provide maltreated children with a role mother that shows them good parenting behaviour. Therapies should also be focused on teaching maltreated mothers strategies to deal with stressful situations to prevent maltreating behaviour.

4.6 Conclusion

This study differed from previous study by examining intergenerational transmission of maltreatment using multiple measurements for history of maltreatment. This study only found support for intergenerational transmission of maltreatment when history of maltreatment was measured with a questionnaire. Even though no significant support was found for the intergenerational transmission when an interview or a combined measurement was used for history of maltreatment, the findings showed the same trend as the questionnaire. No support was found for the social learning theory or the family stress model as a clarification for the intergenerational transmission of maltreatment. Attachment theory might, therefore, be a better theory to clarify the transmission. Attachment theory

does not require type specific patterns, so we did not find support to reject this theory as an explanation for the intergenerational transmission of maltreatment. However, the failure to find support for the social learning theory and the family stress model does not automatically support the attachment theory. More research on attachment theory as an explanation for the mechanism of intergenerational transmission of maltreatment is necessary to make clear conclusions.

References

- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the Strange Situation*. Hillsdale, NJ: Erlbaum.
- Alink, L. R. A., Van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., Pannebakker, F. D., Vogels, A. G. C., & Euser, S. (2011). *Kindermishandeling in Nederland anno 2010: De tweede Nationale Prevalentiestudie Mishandeling van kinderen en jeugdigen (NPM-2010)*. Leiden: Casimir Publishers.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barnett, D., Manly, J. T., & Cicchetti, D. (1993). Defining child maltreatment: The interface between policy and research. In D. Cicchetti & S. L. Toth (Eds.), *Child abuse, child development, and social policy* (pp. 7–73). Norwood, NJ: Ablex.
- Bernstein, D. P., & Fink, L. (1998). *Childhood Trauma Questionnaire: A retrospective self-report*. The Psychological Corporation, San Antonio.
- Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., Stokes, J., Handelsman, L., Medrano, M., Desmond, D., & Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse & Neglect*, 27 (2), 169-190.
- Bolwby, J. (1980). *Attachment and loss: Volume III: Loss: Sadness and depression*. London: Hogarth Press.
- Briere, J. (1992). Methodological issues in the study of child sexual abuse effects. *Journal of Consulting and Clinical Psychology*, 60, 196-203.
- Buchanan, A. (1996). *Cycles of child maltreatment: facts, fallacies, and interventions*. Chichester, New York: Wiley.
- Buchanan, A., & Oliver, J. (1977). Abuse and neglect as a cause of mental retardation: a study of 140 children admitted to subnormality hospitals in Wiltshire. *British Journal of Psychiatry*, 131, 458-467.
- Cassidy, J., & Shaver, P. R. (2008). *Handbook of attachment: Theory, research, and clinical applications*. New York: The Guilford Press.
- Cicchetti, D., & Toth, S. L. (2000). Developmental processes in maltreated children. In D. Hansen (Ed.), *Nebraska symposium on motivation, Vol. 46: Child Maltreatment* (pp. 85-165). Lincoln, NE: University of Nebraska Press.
- Cicchetti, D., Toth, S. L., & Manly, J. T. (2003). *Maternal maltreatment interview*. Unpublished manuscript, Rochester, NY.
- Cicchetti, D., Rogosch, F. A., & Toth, S. L. (2006). Fostering secure attachment in infants in maltreating families through preventative interventions. *Development and Psychopathology*, 18, 623-649.

- Conger, R. D., Conger, K. J., Elder, G. H., Lorenz, F. O., Simons, R. L., & Whitbeck, L. B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Child Development*, 63, 526-541.
- DiLillo, D., DeGue, S., Kras, A., Di Loreto-Colgan, A. R., & Nash, C. (2006). Participant responses to retrospective surveys of child maltreatment: Does mode of assessment matter? *Violence and Victims*, 21 (4), 410-424.
- Dinwiddie, S. H., & Buchols, K. K. (1993). Psychiatric diagnoses of self-reported child abusers. *Child Abuse & Neglect*, 17, 465-476.
- Dixon, L., Hamilton-Giachritsis, C., & Browne, K. (2005). Attributions and behaviours of parents abused as children: a meditational analysis of the intergenerational continuity of child maltreatment (Part II). *Journal of Child Psychology and Psychiatry*, 46 (1), 58-68.
- Dodge, K. H., Pettit, G. S., & Bates, J. E. (1994). Socialization mediators of the relation between socioeconomic status and child conduct problems. *Child Development*, 65, 649-665.
- Egeland, B., Jacobvitz, D., & Sroufe, A. L. (1988). Breaking the cycle of abuse. *Child Development*, 59, 1080-1088.
- Ertem, I. O., Leventhal, J. M., & Dobbs, S. (2000). Intergenerational continuity of child physical abuse: how good is the evidence? *The Lancet*, 356, 814-819.
- George, C., Kaplan, N., & Main, M. (1985). The adult attachment interview. Unpublished manuscript, University of California at Berkeley.
- Hardt, J., & Rutter, M. (2004). Validity of adult retrospective reports of adverse childhood experiences: review of the evidence. *Journal of Child Psychology and Psychiatry*, 45, 260-273.
- Heller, S. S., Larrieu, J. A., D'Imperio, R., & Boris, N. W. (1999). Research on resilience to child maltreatment: empirical considerations. *Child Abuse & Neglect*, 23 (4), 321-338.
- Howe, D. (2005). *Child abuse and neglect: Attachment, development and intervention*. New York: Palgrave Macmillan.
- Johnson, P. B., & Richter, L. (2004). Research note: What if we're wrong? Some possible implications of systematic distortions in adolescents' self-reports of sensitive behaviors. *Journal of Drug Issues*, 34 (4), 951-970.
- Kalichman, S. C. (1993). *Mandated reporting of suspected child abuse: ethics, law and policy*. Washington, DC: American Psychological Association.
- Kendall-Tackett, K., & Becker-Blease, K. (2004). The importance of retrospective findings in child maltreatment research. *Child Abuse & Neglect*, 28, 723-727.
- Kaufman, J., & Zigler, E. (1987). Do abused children become abusive parents? *American Journal of Orthopsychiatry*, 57 (2), 186-192.
- Kim, J. (2009). Type-specific intergenerational transmission of neglectful and physically abusive parenting behaviors among young parents. *Children and Youth Services Review*, 31, 761-767.

- Kinard, E. M. (2004). Methodological issues in assessing the effects of maltreatment characteristics on behavioral adjustment in maltreated children. *Journal of Family Violence, 19* (5), 303-318.
- Main, M., & Hesse, E. (2006). *Frightened, threatening, dissociative, timid-deferential, sexualized, and disorganized parental behavior: A coding system for frightened/frightening (FR) parent-infant interactions*. Unpublished manuscript, University of California at Berkely.
- Martin, J. L., Anderson, J. C., Romans, S. E., Mullen, P. E., & O'Shea, M. (1993). Asking about child sexual abuse: Methodological implications of a two stage survey. *Child Abuse and Neglect, 17*, 383-392.
- McCoy, M. L., & Keen, S. M. (2009). *Child abuse and neglect*. New York: Taylor & Francis Group.
- Miller-Perrin, C. L., & Perrin, R. D. (1999). *Child maltreatment: An introduction*. Newbury Park, CA: Sage Publications.
- Newcomb, M. D., & Locke, T. F. (2001). Intergenerational cycle of maltreatment: a popular concept obscured by methodological limitations. *Child Abuse & Neglect, 25*, 1219-1240.
- Newman, E., Walker, E. A., & Gefland, A. (1999). Assessing the ethical costs and benefits of focused research. *General Hospital Psychiatry, 21*, 187-196.
- Pears, K. C., & Capaldi, D. M. (2001). Intergenerational transmission of abuse: a two-generational prospective study of an at-risk sample. *Child Abuse & Neglect, 25*, 1439-1461.
- Pianta, R., Egeland, B., & Erikson, M. F. (1989). The antecedents of maltreatment: results of the mother-child interaction project. In D. Cicchetti, & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp. 203-253). New York: Cambridge University Press.
- Sedlak, A. J., Mettenburg, J., Basena, M., Petta, I., McPherson, K., Greene, A., and Li, S. (2010). *Fourth National Incidence Study of Child Abuse and Neglect (NIS-4): Report to Congress*. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families.
- Schacter, D. L. (2001). *The seven sins of memory: how minds forget and remembers*. Boston, MA: Houghton Mifflin Company.
- Shaffer, A., Huston, L., & Egeland, B. (2008). Identification of child maltreatment using prospective and self-report methodologies: a comparison of maltreatment incidence and relation to later psychopathology. *Child Abuse & Neglect, 32*, 682-692.
- Straus, M. A., Hamby, S. L., Finkelhor, D., Moore, D. W., & Runyan, D. (1998). Identification of child maltreatment with the Parent-Child Conflict Tactics Scales: Development and psychometric data for a national sample of American parents. *Child Abuse & Neglect, 22* (4), 249-270.
- Tajima, E. A., Herrenkohl, T. I., Huang, B., & Whitney, S. D. (2004). Measuring child maltreatment: a comparison of prospective parent reports and retrospective adolescent reports. *American Journal of Orthopsychiatry, 74* (4), 424-435.

- Thombs, B. D., Bernstein, D. P., Lobbetael, J., & Arntz, A. (2009). A validation study of the Dutch Childhood Trauma Questionnaire-Short Form: Factor structure, reliability, and known-groups validity. *Child Abuse & Neglect*, 33, 518-523.
- Van IJzendoorn, M. H. (1992). Intergenerational transmission of parenting: a review of studies in nonclinical populations. *Developmental Review*, 12 (1), 76-99.
- Widom, C. S. (1989). Does violence beget violence? A critical examination of the literature. *Psychological Bulletin*, 106 (1), 3-28.
- Widom, C. S. (1999). Posttraumatic stress disorder in abused and neglected children grown up. *American Journal of Psychiatry*, 156, 1223-1229.
- Widom, C. S., Raphael, K. G., & DuMont, K. A. (2004). The case for prospective longitudinal studies in child maltreatment research: commentary on Dube, Williamson, Thomson, Felitti, and Anda (2004). *Child Abuse & Neglect*, 28, 715-722.
- Zuravin, S., McMillen, C., DePanfilis, D., & Risley-Curtiss, C. (1996). The intergenerational cycle of child maltreatment, continuity versus discontinuity. *Journal of Interpersonal Violence*, 11 (3), 315-334.