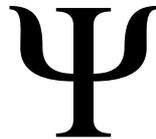




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Childhood Trauma and Attachment to Birth Parents in Foster Children. An Empirical Study.

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Authors note

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Abstract

Traumatic childhood experiences, posttraumatic stress symptoms (PTSS), and aspects of attachment behavior towards birth parents are assessed in a sample of 80 young individuals who have been or are currently in foster care in Norway. Associations between traumatic childhood experiences, posttraumatic stress symptoms, and attachment to birth parents are explored. Traumatic childhood experiences were assessed with a Norwegian version of the Childhood Trauma Questionnaire (CTQ). PTSSs were assessed using the Impact of Event Scale- Revised (IES-R). The results show that many of the young individuals in this study stay in touch with their birth parents, both in foster care and later in life. Many of the young individuals have experienced traumatic childhood experiences. There are statistically significant associations between traumatic childhood experiences, PTSS and aspects of attachment to birth mother. The sum CTQ score, the emotional neglect subscale, and the sexual abuse subscale were specifically associated with aspects of attachment to birth mother. These associations were not found for attachment to birth father. Only emotional neglect was associated with attachment to birth father.

Sammendrag

Traumatiske barndomserfaringer, posttraumatiske stressymptomer (PTSS) og aspekter av tilknytningsatferd overfor biologiske foreldre er undersøkt i et utvalg av 80 unge individer som har vært eller er i fosterhjem i Norge. Sammenhenger mellom traumatiske barndomserfaringer, posttraumatiske stressymptomer og tilknytning til biologiske foreldre blir utforsket. Traumatiske barndomserfaringer ble målt med Childhood Trauma Questionnaire (CTQ). PTSS ble målt ved hjelp av Impact of Event

Scale –Revised (IES-R). Resultatene viser at mange av de unge individene i denne studien holder kontakt med biologiske foreldre, både mens de er i fosterhjem og senere i livet. Mange av de unge individene har opplevd traumatiske barndomserfaringer. Det er statistisk signifikante sammenhenger mellom traumatiske barndomserfaringer, PTSS og aspekter ved tilknytning til biologisk mor. Sumskåren av CTQ, emosjonell forsømmelse og seksuelt misbruk var assosiert med aspekter av tilknytning til biologisk mor. Disse sammenhengene ble ikke funnet for tilknytning til biologisk far. Bare emosjonell forsømmelse var assosiert med tilknytning til biologisk far.

Childhood Trauma and Attachment to Birth Parents in Foster Children. An Empirical Study

Compared with the general population, foster children come from homes with lower socio economic status, are more likely to have parents who misuse drugs or alcohol and are far more likely to grow up with only one parent (Morton & Browne, 1998 cited by Havik & Backe-Hansen, 1998). The following reasons were reported as the main reasons why the Child Welfare Service in Norway had to make interventions; special needs in the home (40 %), the parents' lack of ability to take care of their child (31 %), the behavior of the child (17%), the parent's drug misuse (15 %), child neglect (8 %), the child's disability (4 %), emotional abuse (3 %), sexual abuse (3 %), physical abuse (3 %), and other(16 %; Jonassen, Clausen, & Kristofersen, 1997). In 7 % of the cases the Child Welfare Service had explicitly stated that they intervened because the children had been physically, emotionally or sexually abused. Sexual abuse is only reported as the reason for intervention when a medical examination or an expert opinion confirms that the child has been sexually abused, or if a court ruling against the abuser exists. The reported numbers of abuse are therefore likely to be underestimated. Thus, foster children are prone to experience abuse and neglect during their childhood (Johansson, Sundt, & Gulliksen, 2005; Jonassen, et al., 1997; Mennen & O'Keefe, 2005). Research on other populations indicates that childhood abuse and neglect are associated with somatic and mental health problems later in life (Courtois, 2004; Felitti, et al., 1998; Kirkengen, 2009; Punamäki, 2008).

Even though children in foster care are more prone to experience traumatic events in their childhood, the research regarding exposure to traumatic events and PTSD in this group is scarce (Cook, et al., 2007; Dovran, Winje, Arefjord, & Haugland, in

press; Johansson, et al., 2005) Traumatic events (*Diagnostic and statistical manual of mental disorders: DSM-IV-TR*, 2000) usually involves life threatening conditions, threats of thorough bodily injuries/invalidity, and/or serious violation of integrity (such as sexual abuse, torture and domestic violence). The symptoms characteristic of PTSD are re-experiencing intrusions of the traumatic event or some frightful parts of the event, avoidance of thoughts, memories, people and places connected with the event, emotionally numbing, and symptoms of enduring hyperarousal. The posttraumatic stress symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. The lifetime prevalence of PTSD in the US has been estimated to 7.8 % in the general population (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). One assumes that the prevalence in the general population in Norway is between 1 and 14 % (Dyb, 2009). PTSD often co-occurs with other psychiatric disorders (Cook, et al., 2007; Courtois, 2004; Kearney, Wechsler, Kaur, & Lemos-Miller, 2010).

In recent years, an increasing number of researchers have pointed out that the PTSD diagnosis is too narrow, and does not capture the breadth of posttraumatic stress reactions following multiple or repeated exposure to traumatic events (Cook, Blaustein, Spinazzola, & van der Kolk, 2003; Cook, et al., 2005; Courtois, 2004). The term "*complex trauma*" has been used to describe the dual problem of exposure to multiple traumatic events and the effect of this exposure on immediate and long-term outcomes (Cook, et al., 2007). The complex traumatic events "often occur over an extended time period during which the victim is entrapped and conditioned in a variety of ways" (Courtois, 2004, p. 412). Typically, the traumatic events may involve sequential or simultaneous occurrences of emotional abuse and neglect, physical abuse and neglect,

sexual abuse and/or witnessing domestic violence (Cook, et al., 2007). A range of clinical symptomatology may appear after such exposures. Complex trauma outcomes include impairment on domains like; a) attachment, b) biology, c) affect regulation, d) dissociation, e) behavioral control, f) cognition, and g) self concept (Cook, et al., 2005). Thus, children who have experienced complex trauma often meet the criteria for several diagnoses, including PTSD, depression, ADHD, sleep disorders, anxiety disorders, conduct disorders, eating disorders and reactive attachment disorder (Cook, et al., 2007).

As Havik and Backe-Hansen summarized the research regarding foster children in Norway, traumas and attachment was not emphasized (Havik & Backe-Hansen, 1998). Research on the connection between traumatic experiences and attachment of foster children worldwide is also very limited (Mennen & O'Keefe, 2005). Attachment theory has long emphasized that there is a link between child neglect, child abuse and attachment styles (Ainsworth, 1978; Howe, 1999). Further, attachment to caregivers early in life is related to attachment and psychological well-being later in life (Killén, 2006; Mennen & O'Keefe, 2005; Rye, 2002).

Attachment can be defined as a dyadic regulation of emotion, that evolves as the child and its caregiver(s) interact and form a relationship with each other (Howe, 1999, 2005; Rye, 2002). Attachment behavior is any behavior that helps the child get into a close, protective relationship with their main carers (Bowlby, 1971). The attachment behavior is activated as the child experience fear, pain, uncertainty, anxiety, sickness or distress while separated from the attachment figure (Bowlby, 1971; Howe, 1999). As soon as the goal of protection and proximity is achieved, the attachment system switches off, reducing physiological arousal and emotional distress (Bowlby, 1971;

Howe, 2005). Depending on the emotional interaction between the child and their caregivers, different attachment styles and patterns may evolve (Howe, 1999; Killén, 2006). Researchers have identified four *attachment styles*; secure attachment, anxious ambivalent attachment, anxious avoidant attachment and disorganized/disoriented attachment (Ainsworth, 1978; Mennen & O'Keefe, 2005). Anxious ambivalent, anxious avoidant, and disorganized attachments develop from inconsistent, emotionally neglectful and/or abusive caregivers (Mennen & O'Keefe, 2005). On the other hand, secure attachment patterns evolve from a nurturing and consistent caregiver. Children with secure attachments develop internal working models of their caregivers as responsive, available and helpful in times of difficulties. The attachment styles tend to be stable over time (Mennen & O'Keefe, 2005).

Although there are many theories and a lot of research regarding attachment, measuring adult attachment is very difficult (Smith, Msetfi, & Golding, 2010). There is no consensus about how to operationalize attachment. Self reports are practical for research purposes, but may not cover the unconscious and automatic aspects of attachment. Still, self reports are the most frequently used methods of assessing adult attachment because they are more practical for research purposes (Smith, et al., 2010).

One aspect of attachment behavior is to seek proximity and help from others when distressed, or if one experience something as problematic (Howe, 1999; Mennen & O'Keefe, 2005). The current paper has focused on this aspect of attachment. As the child and caregiver interact over time, the child will develop working models about their relationship. Insecurely attached young individuals are likely to have an internal working model of a caregiver who will not be available for contact, and will be unable to help them in case of difficulties (Howe, 1999, 2005). This working model helps them

organizing the world, and may be applied to future relationships as well. Aspects of attachment behavior towards birth parents are operationalized as future contact preferences in this study, because future contact preferences endorse an aspect of time and endurance in the relationship that the contact preference now does not cover.

Foster children have often experienced traumatic events (Mennen & O'Keefe, 2005; Schofield, 2000). Research indicates that trauma exposure, PTSS, and attachment behavior are related (Higgins & McCabe, 2001; Kearney, et al., 2010; Mennen & O'Keefe, 2005; Punamäki, 2008). This may have implications for functioning, psychological well-being and relationships later in life. Increased knowledge about traumatic events, posttraumatic stress symptoms (PTSS), and attachment may help the Child Welfare Services to make informed decisions (Mennen & O'Keefe, 2005). Focused interventions, derived from this knowledge, could also improve the situation and well-being of foster children. There are two aims of this study. The first aim is to describe a) aspects of attachment behavior with birth parents, b) the prevalence of potentially traumatic events during childhood and c) the prevalence of PTSS. The second aim is to analyze the association between a) potentially traumatic events (PTE) and attachment behavior, and b) PTSS and attachment behavior.

Methods

Participants

The participants in this study were 80 adolescents and young adults, who are either currently in foster care ($n = 35$), or who have been in foster care previously ($n = 45$). A letter was written to inform the target group about the project, and invite them to participate in the survey. Executive officers from BUFETAT (The Norwegian Directorate for Children, Youth and Family Affairs) distributed the letters to the

subjects who are currently in foster care and most of the subjects who have been in foster care previously ($n= 70$). Some subjects were recruited from an association for people who have been in foster care during their childhood ($n =10$). If the respondent was less than 18 years old, the executive officer in the child welfare services, foster parents and the foster child had to give informed consent before the current foster child could participate. The responding rates for the current foster children are not known at present. The young individuals who had been in foster care previously were selected according to the following selection criteria: they had been in foster care for at least four years, moved out of the foster care during the last 4 years, and had a §4.12 decision (Ministry of Children, Equality and Social Inclusion, 2010). About half of the previous foster children who were selected completed the survey.

There were 42 girls and 38 boys in the sample, and the age span ranged from 13 to 32 years of age ($M= 19.3$ years, <17 years old $n= 33$, $18-29$ years old $n= 46$, >30 $n = 1$). All of the respondents in this study will be termed “young individuals” regardless of age. The young individuals’ average age when entering foster care was 7.6 years old, ranging from minimum one year old and maximum 16 years old at the first placement. Those who had been in foster care previously had on average been in foster care for 13 years (ranging from 4 to 19 years in foster care).

Instruments

Childhood Trauma Questionnaire, short form (CTQ-SF). The CTQ was used to measure potentially traumatic childhood experiences. This instrument measures abuse and neglect during childhood and adolescence in retrospect (Bernstein, Ahluvalia, Pogge, & Handelsman, 1997; Bernstein & Fink, 1998; Bernstein, et al., 1994). It may be used by informants down to 12 years of age. The CTQ measures the frequency of acts

and behaviors that characterize abuse and neglect. Item response anchors follow a Likert scale (1 - 5) from “Never true” to “Very often true”. The most recent version, the short form (CTQ-SF), contains 28 items, of which 3 items relate to a minimization/denial subscale (Bernstein & Fink, 1998). The minimization score in the CTQ was dichotomized, so that those who responded 5, “very often true”, on at least one of the minimization items were scored as minimizing their problems. The others did not rate their childhood as perfect. The internal reliability for the CTQ appears excellent for the total scale and good to excellent for all subscales (Bernstein, et al., 1997; Bernstein, et al., 1994). The responses are summed up in five subscales: “Emotional Abuse”, “Physical Abuse”, “Sexual Abuse”, “Emotional Neglect”, and “Physical Neglect”, and these are identified through factor analysis. The means are reported on a scale of 5 to 25, as emphasized by Bernstein (Bernstein & Fink, 1998) and recommended by Baker and Maiorino (2010) in their meta analyses of research using the CTQ. Sensitivity and specificity appear at least good when using the suggested cut-offs, and the therapists' estimates of maltreatment as the “golden standard” (Ohan, Myers, & Collett, 2002). Using the recommended cut-off, scores can be classified as none, low, moderate, or severe (Bernstein & Fink, 1998).

Paivio (2001) found that CTQ was stable over time in spite of significantly reduced psychopathology during the treatment period. The reliability of the CTQ for the young individuals in this sample was .95 (Cronbach α). Potentially traumatic events (PTE) are sometimes referred to as trauma in this study, because the CTQ measures PTE, but refers to this as “trauma”. The word “trauma” is derived from the Greek word “traûma”, which means wound or injury. Whenever the word trauma is used in this study, it refers to psychological injury.

Impact of Event Scale- Revised (IES-R). The IES-R was applied to measure PTSS. The original Impact of Event Scale, IES (Horowitz, Wilner, & Alvarez, 1979), has been employed for a wide range of traumatic events and with several populations (Sundin & Horowitz, 2003). The revised version, Impact of Event Scale - Revised (IES-R; Weiss & Marmar, 1997), is widely used as a self-report measure of PTSD symptoms (Elhai, Gray, Kashdan, & Franklin, 2005). The IES-R measures PTSD symptom intensity with a time-frame limited to the past seven days. Item response anchors follow a Likert scale (0 - 4) from “Not at all” to “Extremely”. The IES-R encompasses 22 questions regarding post traumatic stress symptoms that can be categorized into three core symptoms; intrusion, avoidance and hyperarousal (Weiss & Marmar, 1997). The developers of the IES-R (Weiss & Marmar, 1997) recommend using the mean for subscale scores. In a systematic review of screening instruments, Brewin (2005) concludes that measures like IES-R using a small number of core symptoms are highly effective in a wide variety of trauma populations. Few items, simple response scales, and simple methods of scoring indicate good measures.

The IES-R is not directly tied to the diagnostic criteria of DSM - IV, but cut-off scores have been employed to discern a caseness symptom level, of *probable PTSD* diagnosis. Different cut-offs have been used for different samples (Asukai, et al., 2002; Rash, Coffey, Baschnagel, Drobos, & Saladin, 2008). This study used a cut-off of 33, which is a rather severe level of PTSS. Creamer, Bell and Failla (2003) used the same cut off in their study using the IES-R with a community sample and a Vietnam veteran sample. The young individuals who did not report any possibly traumatic childhood experiences (n = 14), did not complete the IES-R score. This is according to the rule of

administration (Weiss, 2004). The internal consistency of the IES-R in this sample was .95 (Cronbach α).

Measures of attachment. In order to describe certain aspects of attachment behavior, questions about contact frequency and contact preferences with the birth parents, now and in the future, were developed and distributed to the sample. As described in table 1, the frequency of contact scale was coded into 7 categories: Do not have mother/father (=0), no contact (=1), contact less than 4 times pr year (=2), monthly contact (=3), contact every 14th day (=4), weekly contact (=5), and daily contact (=6).

The questions about contact preferences, at the present and in the future, covered whether the participants would want to have contact with their mother/father if they had problems or difficulties, and if they thought that they could receive help from them (see table 1). The “Yes, some help” group and the “Yes, a lot of help” group were merged into a “Yes, help” category in the statistical analyses. Very few young individuals wanted contact with their parents without expecting to get any help from them ($n < 5$ for contact with mother and father, both at present and in the future). Besides, the people who did not have a mother or father could not choose to contact them if they wanted to. Two categories were therefore excluded from the analyses; the “do not have mother/father” and the “yes, but no help” categories. Thus, the categories could be dichotomized into a group that did not want to contact their parents (“No contact”), and a group that wanted to contact their parents hoping that it could help them (“Yes, help”). Later in this report, the groups are referred to as those who “want contact” with their parents, and those who “do not want contact” with their parents. These terms refer to those who want, or do not want, contact with their parents in case of difficulties, hoping to receive help.

Statistical analyses. Statistica 8 for Windows PC was used for the statistical analyses. Person mean imputations were used for the data where there were enough data to do this (Hawthorne & Elliott, 2005; Little & Rubin, 2002). There was one case where too many items were missing, and this case was excluded by pair wise deletion. Since “contact preferences now” and “contact preferences in the future” correlated strongly and significantly (see table 2), “contact preferences in the future” was replaced by “contact preferences now” in three cases where “contact preferences in the future” were missing. In two instances altogether, obvious contradictions were reported. These two young individuals reported that they did not have a mother or father, and later answered “no contact” on contact preferences in the future. The “no contact” scores were replaced with “don’t have” in these two cases.

Differences between categorical variables were studied, using Pearson χ^2 tests. Independent t-tests were used in the analyses of scores on continuous measures between groups. Mann Whitney U tests were performed when the Levene test indicated that the variance was not homogenous. The results are reported with t-test with separate variance estimates, since the results from the t-test with separate variance estimates and the Mann Whitney U test did not differ. Effect size was measured with *Hedges g*, since the variance was not homogenous. *Spearman rank order R* correlation analyses were applied to compare frequency of contact, contact preferences now, and future contact preferences. *Pearson R* correlation analyses were used in order to explore the association between emotional neglect and sexual abuse.

Ethics

The study was approved by the “REK-Vest”, The Regional Committee for Medical and Health Research Ethics, Western Norway.

Results

Descriptions of Attachment Behavior, Probable PTSD and Childhood Traumatic Events

Table 1 describes attachment behavior. Nearly half of the young individuals in this sample (47 %) have contact with their mother every 14th day or more frequently, while 24 % have contact with their father every 14th day or more frequently. More of the participants want contact with their parents in the future if they have problems, compared to contact preferences now. The fraction of the young individuals that want contact with their mother now and in the future was 41 % and 47 %, respectively. As for the father, 34 % and 42 % want contact with their father now and in the future, respectively.

There are strong and statistically significant associations between the three attachment measures, frequency of contact, contact preferences now and contact preferences in the future (Table 2). The contact frequency and contact preferences with the birth mother correlate strongly, as does the contact frequency and contact preferences with the birth father. Thus, the contact seems to remain fairly stable across time as assessed in this study.

Table 3 shows that a large number of participants have experienced some form of traumatic experiences during childhood. Physical neglect and emotional neglect were the most common forms of childhood trauma that were reported. One fourth of the sample had probable PTSD ($n=20$). There were no statistically significant differences between males and females on childhood traumas, PTSD symptom severity, frequency of contact, or contact preferences at the present or in the future (see table 4). There were no statistically significant differences between youths who were in foster care at the

present, and the group that had previously been in foster care on measures of PTSD symptoms, childhood traumas, frequency of contact and contact preferences at present or in the future. However, the exception was that the group that had previously been in foster care reported some more sexual abuse than the youths that were currently in foster care, and this difference was statistically significant ($t = -2.10, df = 67, p < .05$).

Childhood Trauma (CTQ) Associated with Future Contact Preferences

Those who did not want to have contact with their *birth mother* in the future reported significantly more traumatic childhood experiences (sum CTQ), sexual abuse and emotional neglect, compared to those who did not want contact with their birth mother in the future (Table 5). The effect sizes were moderate, indicating that traumatic childhood experiences may explain a considerable portion of the variance on attachment (Conner, 2010).

The minimization score in the CTQ was dichotomized and cross tabulation was used to analyze possible differences between minimization (yes/no) regarding future contact preferences with the birth mother. No statistically significant difference in future contact preferences with mother was found ($\chi^2 = .04, df = 1, ns$).

All items in the emotional neglect, as well as in the sexual abuse category, were significantly associated with future contact preferences with the birth mother (Table 6). The moderate effect sizes indicate that the associations may be considered to be of practical relevance (Conner, 2010). Additional analyses revealed that emotional neglect and sexual abuse correlated significantly with each other ($r = .46, p < .001$).

The same results did not apply to future contact preferences with the *birth father* (Table 5). There were no statistically significant differences between the group that did not want contact with their father in the future, and the group that wanted contact with

their father. The exception was a statistically significant difference, with a moderate effect size, in emotional neglect between the group that did not want contact with their father and the group that wanted contact with him (see table 5b). The group that wanted contact with their father in the future reported less emotional neglect than the group that did not want contact with their birth father.

PTSS Associated with Future Contact Preferences

Significantly more PTSS were reported in the group that did not want contact with their birth mother, compared to the group that wanted contact with their birth mother in case of difficulties in the future (see table 7). The difference between these two groups was significant ($\chi^2=4.06, p <0.05$). Contact preferences with the birth father were not related to PTSS level ($\chi^2=0.00, ns$).

Discussion

Major Results Related to Findings of Other Studies

A large proportion of the foster children in this sample have frequent contact with their birth parents. They report a number of traumatic childhood experiences, and PTSS. The main finding in this study is that there is an association between traumatic childhood experiences, PTSS and aspects of attachment to the birth mother.

A starting point of this study was Vinnerljung's famous study that describes that many foster children loose contact with their birth parents and their foster parents as adults (Vinnerljung, 1996). In contrast, most of the young individuals in this study, both those who were currently in foster care and those who had been in foster care previously, have contact with their birth parents. Moreover, the young individuals reported that they want more contact with their parents as they grow older. It may seem like a majority of our sample feel that even though their birth parents were not able to

raise them, the parents may be there for them as the young individuals grow older and life situations change. One could suspect that idealization of birth parents caring and helping capacities is part of this picture, but the low minimization score strongly indicate that the young individuals know that their birth parents are not perfect. The contact preferences remain fairly stable across time. About one third of the young individuals do not want contact with their parents in the future.

Statistically significant associations with moderate effect sizes were found between traumatic childhood experiences, and aspects of attachment to the *birth mother*. The sum of childhood traumatic experience, emotional neglect, and sexual abuse was particularly associated with aspects of attachment to the birth mother. This is in line with attachment theories and theories about complex trauma, suggesting that childhood traumatic experiences are associated with insecure attachment (Cook, et al., 2007; Mennen & O'Keefe, 2005).

Unfortunately, little research has focused on differences between different kinds of traumatic childhood experiences (Baker & Maiorino, 2010). The incidences of traumatic childhood experiences are relatively high in this sample, and sexual abuse and emotional neglect differed from the other kinds of traumatic childhood experiences for both boys and girls. This may indicate that emotional neglect and sexual abuse may have a different psychological impact on an individual's life than other kinds of abuse and neglect have.

Sexual abuse and emotional neglect correlate strongly and statistically significantly in this study, and emotional neglect could explain 20 % of the variance in sexual abuse. Although research shows that women may sexually abuse children, the sexual abusers are predominantly men (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002).

Thus, the birth mother is not likely to have sexually abused the child. However, the birth mothers that neglected their children emotionally may not have been able to detect risk situations, and as a consequence not been able to protect their children from other abusers. The connection between emotional neglect and sexual abuse in this study is also consistent with research stating that traumatized children are more vulnerable to experience traumatic events later in life as well (Cook, et al., 2007; Kirkengen, 2009). Emotional neglect from significant others may also result in the individual neglecting himself or herself (Kirkengen, 2009).

Traumatic experiences and PTSS were not associated with aspects of attachment to the *birth father*. Neglect may be more harmful for the development of attachment to the mother compared to attachment to the father. Naturally, a bond develops between mother and child as the mother carries the child in her womb, and strengthens during the long time interaction between mother and the infant child, particularly so if she breast feeds the infant. Thus, attachment to mother could have other qualities and stronger predictions on later psychosocial outcomes than attachment to father (Thompson, 1998). However, another explanation may be that most of the children lived only with their mother, and most foster children come from broken homes, where the birth parents do not live together (Jonassen, et al., 1997). Only 32 % of the children in the child welfare services lived together with both of their parents when the child welfare services started to intervene, while 80 % of the children in the general population lived together with both of their parents (Jonassen, et al., 1997). Most foster children lived with their mother before they were placed in foster care. This is probably the case for most of the young individuals in this study too. Thus, the birth father may not have been such a significant person in these young individuals' life. It is likely that

traumatic events and posttraumatic stress symptoms would have been associated with attachment to the birth father if he was a larger part of their life. Those who wanted contact with their father had experienced significantly less emotional neglect than those who did not want contact with their father, something that may support this second explanation.

Those who want contact with their birth mother are likely to be more securely attached to their birth mother than those who do not want to contact her. This indicates that aspects of insecure attachment behavior are associated with more traumatic childhood experiences, and more PTSS. Findings from other studies confirm that childhood traumas, such as sexual abuse and deprivation of care, increase the risk of insecure attachment (Higgins & McCabe, 2001; Mennen & O'Keefe, 2005; Punamäki, 2008). The design of this study makes attachment behavior the dependent variable. As PTSS are reactions following from traumatic experiences, and associated with attachment, PTSS may be considered a mediating factor. Thus, the reactions of a young individual to PTE, including PTSS, may mediate the effects of the traumatic events on attachment. However, as the time aspect was not assessed, attachment might just as well have been insecure before the traumatic events occurred, or at least before the child developed PTSS. Some researchers suggest that secure attachment is a mediating factor that may decrease PTSD symptoms after traumatic experiences (Kearney, et al., 2010).

Limitations of the study

Measuring adult attachment is difficult, and only aspects of attachment behavior are used in this present study. One cannot conclude whether the individuals are securely attached or not based on these findings. Other aspects of attachment behavior than contact with birth parents could have been assessed as well, but would have been too

ambitious for this thesis. The many ways of operationalizing and measuring attachment makes it difficult to compare this study with other studies, and generalize the findings (Smith, et al., 2010).

The young individuals in this sample may not be representative of the general population of foster children. The child welfare executive officer, the foster parents, and the foster child had to give their consent to participation when the young individual in foster care was less than 18 years old. These requirements for consent obviously affected the representativity of the sample. Many of these rejected participation. Some of these may have rejected due to a risk of possible emotional stress for the foster child from being questioned about childhood trauma and the relationship to birth parents. Some of the young adult respondents who had previously been in foster care were difficult to find, and several simply did not meet as scheduled. Some of the young individuals who did not participate in this study may have experienced more severe childhood trauma, and some may have experienced less severe childhood traumas.

Implications for Clinical Practice

Early experiences of abuse and neglect are likely to influence the foster children's behavior, and the quality of the relationships that they form in foster care, as well as attachment in all future relationships (Howe, 1999; Punamäki, 2008). Such experiences are also associated with higher risks of placement breakdown in foster care (Thoburn, 1991a cited by Schofield, 2000). Knowledge about traumatic childhood experiences and attachment could help the foster parents and others to deal with the foster child's difficulties in a better way (Mennen & O'Keefe, 2005). Collaboration between mental health workers and people working in the child welfare services is

important in order to determine psychiatric disorders and treatment needs of foster children (Grasso, et al., 2010).

Later in life, the foster children may be unable to develop a secure relationship with their own child, and see their child's need, because they use the early mental representation of their own attachment as a prototype for future relationships (Mennen & O'Keefe, 2005). Thus, the foster child's early experiences of traumas, and attachment history, may explain the intergenerational transmission of insecure attachment, child abuse and neglect (Morton & Brown, 1998 cited by Killén, 2006; Mennen & O'Keefe, 2005). However, a child's early experiences can be overcome by providing emotional stability and security for the child, and therapeutic interventions (Anke, 2007; Golding, 2008; Grasso, et al., 2010; Mennen & O'Keefe, 2005; Schofield & Beek, 2006). Thus, therapy and interventions may help both the foster child and birth parents to develop secure attachment and process the traumatic experiences. In some cases the child may be securely attached to another significant person in their life, other than the birth parents (Schofield, 2000; Schofield & Beek, 2006; Thompson, 1998). This one secure attachment may help them form working models of attachment that can help them relating to other people, and forming secure relationships with others as well (Schofield, 2000; Thompson, 1998).

A number of people are involved in child custody cases, including foster parents, birth parents, social workers, school staff, physicians, and psychologists, depending on the child's needs (Havik & Rød, 1995). Research shows that the children themselves often get invisible in these cases (Havik & Backe-Hansen, 1998). A recurring theme of people who have previously been in foster care is that they missed being asked, seen, heard and informed about important issues in their own case (Havik & Backe-Hansen,

1998; Koch & Koch, 1995). Perhaps this is why the traumatic childhood events and attachment behavior of the child was not assessed in the first place. Important information will be neglected if one does not listen to the foster children's stories, points of view, and perception of the world. Traumatic childhood experiences and the foster child's reaction to these experiences may be forgotten. The same applies to attachment styles and the child's working models regarding relationships with significant others. Several studies show that insult and illnesses are connected, and that professional health workers often do not acknowledge traumatic experience as part of people's health (Felitti, et al., 1998; Kirkengen, 2009; Krug, et al., 2002). According to Kirkengen, it is vocational neglect when health professionals ignore patients' stories of infirmity or insult, or do not ask actively for experiences of insult. This has been termed "the interaction between domestic violence and the cycle of professional neglect" (Krug et al, 2002a cited by Kirkengen, 2009, p. 48).

Recently, there have been some discussions in the Norwegian mass media about opening up for early adoption of foster children if they can not be re-united with their birth family within a certain time frame (Skivenes, 2009; Thunold, 2009). Adoption of foster children after a certain time frame is practiced in the UK and the US. The results of this study may indicate that traumatic childhood experiences and attachment should be taken into account as decisions about adoption are negotiated.

Implications for Further Research

More research is needed to investigate further traumatic childhood experiences among foster children (Baker & Maiorino, 2010; Cournos, 2002; Pfefferbaum, 1997). The psychological significance of various kinds of traumatic events during the foster children's childhood has not been investigated in other studies, to the author's

knowledge. I searched for these kinds of studies in PubMed, PsychInfo, Google, Web of Science and CrossRef without finding anything. There may be differences between traumatic events and their effects on attachment, which should be further studied. The CTQ is a useful tool when investigating these differences. In order to capture the intricate attachment patterns, and the connection between attachment and traumas, specific, or focused investigations are needed. There is a need to find better ways of operationalizing and measuring attachment behavior, and traumatic childhood experiences, to reach a consensus about which instruments should be used in future research (Dovran, et al., in press; Smith, et al., 2010). This will make it easier to compare different studies with each other.

Time is an aspect that is often neglected in research (Kazdin, 2007). In order to gain more knowledge about the association between traumatic childhood experiences, PTSD and attachment, the time aspect should be included. Thus, transactions and hypothesizes of cause, effect and mediating factors could be investigated further (Kazdin, 2007). Furthermore, some research indicates that insecurely attached children may develop secure attachment styles by providing emotional stability and security for the child later in life, and therapeutic interventions (Anke, 2007; Golding, 2008; Mennen & O'Keefe, 2005; Schofield & Beek, 2006). PTSS may also be reduced by treatment (Courtois, 2004; Grasso, et al., 2010). Further research could compare different kinds of combinations of treatment and interventions to see how they may help foster children. These interventions could include effects of therapy for the foster child, therapy for the birth parent, teaching birth parents and foster parents about trauma reactions and attachment, and help parents and other adults coping with the child's

difficulties (Anke, 2007; Courtois, 2004; Grasso, et al., 2010; Mennen & O'Keefe, 2005; Schofield, 2000).

Conclusion

This study confirms that foster children frequently have experienced traumatic experiences in their childhood, and that traumatic childhood experiences and PTSS may play an important role in shaping attachment behavior for girls and boys. This should have implications for the child welfare services and people working with the foster children. Therefore, it is important that the foster child's traumatic experiences, complex trauma symptoms and attachment behavior are assessed. Repeated assessment at several points of time with reliable and valid instruments is alpha and omega in clinical research (Kazdin, 2007). This information is helpful for the child welfare services and others working with the child, in order to understand the child's behavior, and to provide good care for the child. It may also help preventing further abuse in the future. The birth parents' trauma experience, PTSS and attachment behavior could also be assessed. Secondly, therapy and interventions that may help coping with the traumatic experiences and facilitate secure attachments should be available for the foster child and birth parents. Thirdly, information and supervision about how to facilitate secure attachment and cope with the special needs and challenges of traumatized and insecurely attached foster children should be easily accessible for foster parents and other people working with foster children.

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Table 1

Description of Attachment Behavior Related to Birth Parents (N = 80)

a) Frequency of contact

| | Do not have mother/ father | No contact | ≤ 4 times pr year | Monthly | Every 14th day | Weekly | Daily |
|-------------------------------------------------|----------------------------------|------------|----------------------|-----------|-------------------|-----------|---------|
| How OFTEN do you have contact with your MOTHER? | 12 (15 %) | 10 (13 %) | 8 (10 %) | 13 (16 %) | 7 (9 %) | 24 (30 %) | 6 (8 %) |
| How OFTEN do you have contact with your FATHER? | 18 (23 %) | 12 (15 %) | 16 (20 %) | 15 (19 %) | 5 (6 %) | 10 (13 %) | 4 (5 %) |

b) Contact preferences

| Contact preferences at present | Do not have mother/ father | No contact | Yes, but no help | Yes, some help | Yes, a lot of help |
|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------|---------------------|-------------------|-----------------------|
| When you at the PRESENT have problems or experience something difficult, do you contact your MOTHER, and experience that it helps you? | 12 (15 %) | 32 (40 %) | 3 (4 %) | 17 (21 %) | 16 (20 %) |
| When you at the PRESENT have problems or experience something difficult, do you contact your FATHER, and experience that it helps you? | 18 (23 %) | 33 (41 %) | 2 (3 %) | 21 (26 %) | 6 (8 %) |
| Contact preferences in the future | | | | | |
| When you IN THE FUTURE get problems or experience something difficult, will you contact your MOTHER, hoping that it will help you? | 12 (15 %) | 26 (33 %) | 4 (5 %) | 18 (23 %) | 19 (24 %) |
| When you IN THE FUTURE get problems or experience something difficult, will you contact your FATHER, hoping that it will help you? | 18 (23 %) | 23 (29 %) | 4 (5 %) | 25 (31 %) | 9 (11 %) |

Table 2

Correlations Between Frequency of Contact, Contact Preferences now and Contact Preferences in the Future for the Birth Parents

| | Contact frequency mother | Preferences now mother | Preferences future mother | Contact frequency father | Preferences now father | Preferences future father |
|---------------------------|--------------------------|------------------------|---------------------------|--------------------------|------------------------|---------------------------|
| Contact frequency mother | - | .76*** | .67*** | .25* | .18 | .27* |
| Preferences now mother | | - | .85*** | .27* | .33** | .41*** |
| Preferences future mother | | | - | .26* | .28* | .41*** |
| Contact frequency father | | | | - | .79*** | .77*** |
| Preferences now father | | | | | - | .87*** |
| Preferences future father | | | | | | - |

Note. Those who did not have parents were excluded from these analyses to avoid artificially high correlations

p < .05, ** p < .01, *** p < .001

Table 3

Description of Childhood Trauma Assessed by CTQ (n = 69), Subscale Means and Trauma Severity

| | CTQ Mean (SD) | | CTQ Severity Score ^a | | | |
|-------------------|---------------|-----------|---------------------------------|-----------|-----------|-----------|
| | <i>M</i> | <i>SD</i> | None | Low | Moderate | Severe |
| Emotional abuse | 11.92 | 6.14 | 29 (36 %) | 14 (18 %) | 6 (8 %) | 20 (25%) |
| Physical abuse | 9.42 | 6.14 | 41 (51 %) | 3 (4 %) | 7 (9 %) | 18 (23 %) |
| Sexual abuse | 7.54 | 5.66 | 49 (61 %) | 8 (10 %) | 3 (4 %) | 9 (11 %) |
| Emotional neglect | 14.64 | 5.31 | 13 (16 %) | 23 (29 %) | 9 (11 %) | 24 (30 %) |
| Physical neglect | 12.04 | 4.92 | 13 (16 %) | 9 (11 %) | 18 (23 %) | 29 (36 %) |
| Sum CTQ | 52.56 | 22.25 | | | | |

^aSeverity cut offs as recommended by Bernstein & Fink (1998)

Table 4

Gender Differences

| | Male | | Female | | <i>df</i> | <i>p</i> ^d |
|--------------------------------------------------------------|---------------|--------------|---------------|--------------|-----------|-----------------------|
| | <i>M (sd)</i> | <i>n (%)</i> | <i>M (sd)</i> | <i>n (%)</i> | | |
| Future contact preferences with mom (n = 63) ^a | | 11 (17 %) | | 15 (24 %) | 1 | ns |
| Do not want contact | | 19 (30 %) | | 18 (29 %) | | |
| Want contact, hoping to get help | | | | | | |
| Probable PTSD (IES-R) (n = 66) ^b | | | | | | |
| PTSD | | 8 (12 %) | | 12 (18 %) | 1 | ns |
| No PTSD | | 21 (32 %) | | 25 (38 %) | | |
| Sum CTQ (n = 69) ^c | 57.87 (23.38) | | 52.56 (22.25) | | 67 | ns |

^a The n varies because those who want contact with their mother, but do not think that they will get any help are excluded.

^b The n varies because those who have not experienced any traumatic events are not assessed with IES-R.

^c The n varies from probable PTSD because of missing data (n = 3) in the protocol for CTQ

^d Derived from χ^2 analyses for contact preferences and possible PTSD, and t-test for Sum CTQ

Table 5a

Future Contact Preferences With Mother and Childhood Traumatic Experience (N = 53)

| | Do not want contact <i>M (SD)</i> | Want contact, and help <i>M (SD)</i> | <i>t</i> -test with separate variance estimate | Effect size <i>g</i> |
|-------------------|--------------------------------------|-----------------------------------------|---------------------------------------------------|-------------------------|
| Sum CTQ | 68.53 (29.01) | 47.63 (16.77) | 2.88* | .71 |
| Emotional abuse | 14.26 (7.36) | 10.68 (5.88) | 1.84 | .48 |
| Physical abuse | 11.47 (7.11) | 7.85 (5.21) | 1.95 | .50 |
| Sexual abuse | 11.79 (8.30) | 5.56 (1.60) | 3.24** | .74 |
| Emotional neglect | 17.47 (6.24) | 12.80 (4.02) | 2.94** | .74 |
| Physical neglect | 13.53 (5.74) | 10.74 (4.27) | 2.01 | .48 |

* $p < .05$, ** $p < 0.01$

Table 5b

Preferences Future With Father and Childhood Traumatic Experiences (N = 53)

| | Do not want contact <i>M (SD)</i> | Want contact, and help <i>M (SD)</i> | <i>t</i> -test with separate variance estimate | Effect size <i>g</i> |
|-------------------|--------------------------------------|-----------------------------------------|---------------------------------------------------|-------------------------|
| Sum CTQ | 57.44 (21.61) | 51.64 (22.47) | .89 | .26 |
| Emotional abuse | 11.83 (5.79) | 11.28 (5.90) | .32 | .09 |
| Physical abuse | 8.94 (6.05) | 8.50 (5.64) | .25 | .07 |
| Sexual abuse | 8.44 (7.63) | 6.77 (4.69) | .84 | .22 |
| Emotional neglect | 16.33 (4.64) | 13.10 (4.91) | 2.29* | .68 |
| Physical neglect | 11.89 (4.47) | 12.00 (5.32) | -.08 | -.02 |

* $p < .05$

Table 6

Contact Preferences Associated With CTQ Items of Emotional Neglect and Sexual Abuse

| | Do not want contact | Want contact and help | | t-test with separate variance estimate | Effect size |
|-------------------------------------------------------|---------------------|-----------------------|-----------|-------------------------------------------|-------------|
| | <i>M (SD)</i> | <i>M (SD)</i> | <i>df</i> | <i>t</i> | <i>g</i> |
| Emotional neglect items | | | | | |
| EN5: Made to feel important ^R | 3.30 (1.22) | 2.52 (1.17) | 38.35 | 2.31* | .63 |
| EN7: Felt loved ^R | 3.45 (1.50) | 2.28 (1.26) | 33.83 | 2.96** | .77 |
| EN12: Was looked out for ^R | 3.25 (1.29) | 2.37 (1.06) | 33.62 | 2.58* | .67 |
| EN17: Family felt close ^R | 3.55 (1.19) | 2.71 (1.14) | 38.62 | 2.55* | .70 |
| EN25: Family was a source of strength ^R | 4.00 (1.38) | 3.06 (1.10) | 33.24 | 2.61* | .67 |
| Sexual abuse items | | | | | |
| SA18: Was touched sexually | 2.33 (1.83) | 1.20 (.72) | 23.78 | 2.72* | .61 |
| SA 19: Hurt if subject did not do something sexual | 2.00 (1.61) | 1.11 (1.61) | 21.52 | 2.47* | .54 |
| SA20: Made to do sexual things | 1.95 (1.50) | 1.09 (1.50) | 21.50 | 2.60* | .56 |
| SA21: Was molested | 2.52 (1.89) | 1.11 (.40) | 21.10 | 3.38** | .74 |
| SA24: Was sexually abused | 2.33 (1.80) | 1.03 (.17) | 20.21 | 3.32** | .71 |

^R These items were reversed coded and scored

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

Table 7

Future Contact Preferences with Birth Parents Associated with Probable PTSD Dichotomized

| Probable PTSD | Contact preferences for the future with birth parents | | χ^2 | df |
|---------------|-------------------------------------------------------|------------------------------------------------------|----------|----|
| | Wish no contact with <i>mother</i> | Want contact with <i>mother</i> , hoping to get help | | |
| | n (%) | n (%) | | |
| No PTSD | 11 (22 %) | 23 (46 %) | 4.06* | 1 |
| PTSD | 10 (20 %) | 6 (12 %) | | |
| Probable PTSD | Contact preferences for the future with birth parents | | χ^2 | df |
| | Wish no contact with <i>father</i> | Want contact with <i>father</i> , hoping to get help | | |
| | n (%) | n (%) | | |
| No PTSD | 12 (27 %) | 22 (49 %) | .00 | 1 |
| PTSD | 4 (9 %) | 7 (16 %) | | |

*p < .05

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