

Linköping University Medical Dissertations No. 1173

# GROWN-UP CHILDREN OF DIVORCE

## Experiences and Health

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Linköping 2010

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Cover picture/illustration: The Journey of Life  
Per Lagman & Teresia Ängarne-Lindberg

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Printed in Sweden by LiU-Tryck, Linköping, Sweden, 2010

ISBN: 978-91-7393-428-2

ISSN: 0345-0082

"It doesn't matter, if you divide mother...you like her feet as much as her head, it's the same with mother and father you love them both the same. It doesn't matter if dad had hit mother to death, he is...he would still have been my father."

Woman, age 24



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## **ABSTRACT**

The comprehensive purpose of the thesis was to study the health and experiences, with a main focus on mental health, of a group of grown-up children of divorced parents in comparison to a group of persons without this experience. Mental health, experienced life events, narratives of divorce related experiences and personal resources were therefore examined in a group of young adults (age 22-33 years) whose parents divorced 15 years before the start of the first three studies. In addition to this, the presence of a child/adolescent and/or an adult psychiatric record and ten years of diagnosed physical health visits in the same but extended group (age 21-38 years) was examined 20 years after parental divorce. The outcomes of these examinations were compared with the outcomes of a group with married parents still living together, matched with the divorce group on age gender and living area. The results showed no major differences in mental health between the divorce and the non-divorce group, with the exception of women age 22-27 showing poorer mental health than the others in the study. Personal resources in this case SOC (Sense of Coherence) followed the same pattern, with no significant differences between the divorce and the non-divorce group, but with women age 22-27 showing lower SOC. The experiences/narratives told by the divorce group fell into one of two categories: one disappointment, the other contentment, with the first indicating non-optimal chances for adjustment to parental divorce and the other good. The run-through of psychiatric records showed no significant differences between the number of persons in need of adult psychiatric care in the divorce and the non-divorce group. A significant difference was present, however, in child- and adolescent psychiatric care pointing to a larger need for psychiatric care in the divorce group, a need most pronounced among girls. As concerned the number of diagnosed physical health care visits, only small differences between the groups were found. The main conclusion of the study was that experience of parental divorce in childhood is not found for a majority to be an experience determining poorer mental or somatic health in young adulthood.

## SVENSK SAMMANFATTNING

Det övergripande syftet med avhandlingen var att studera hälsa, framför allt mental hälsa, och erfarenheter hos en grupp unga vuxna skilsmässobarn jämfört med en grupp utan denna erfarenhet. Den mentala hälsan, upplevda livshändelser, erfarenheter kopplade till skilsmässan och personliga resurser undersöktes därför hos en grupp unga vuxna (22-33 år) vilkas föräldrar skilt sig 15 år före studiens början. Utöver detta undersöktes förekomsten av barn- och ungdoms och/eller vuxenpsykiatriska journaler och tio års diagnosangivna sjukvårdsbesök 20 år efter skilsmässan. De uppkomna resultaten jämfördes med resultaten från en grupp vars föräldrar var gifta och levde tillsammans, matchade med skilsmässogruppen vad gällde ålder, kön och bostadsort. Resultatet pekade inte på någon signifikant skillnad mellan skilsmäso- och icke-skilsmässogruppen vad gällde den mentala hälsan, med undantag för kvinnor i åldern 22-27 år, vilka visade sämre mental hälsa än de övriga i studien. Personliga resurser, i denna studie definierad som KASAM, (Känsla av Sammanhang) följde ett mönster likt ovan nämnda; med icke-signifikanta skillnader mellan skilsmäso- och icke-skilsmässogruppen, men med uppvisande av lägre KASAM bland kvinnorna i åldern 22-27 år. De beskrivna erfarenheterna av föräldrarnas skilsmässa mynnade ut i de två kategorierna: *besvikelse* och *belåtenhet/tillfredsställelse* indikerande bra respektive icke-optimala möjligheter till anpassning efter upplevd skilsmässa. Genomgången av psykiatriska journaler visade inte på någon signifikant skillnad i behov av vuxnenpsykiatrisk hjälp mellan skilsmäso- och icke-skilsmässogruppen. En signifikant skillnad i antalet personer i behov av barn- och ungdomspsykiatriskt stöd som pekade på ett större behov i skilsmässogruppen, främst bland flickor, förelåg dock. Vad gällde den fysiska hälsan pekade resultaten på små skillnader mellan grupperna i antalet diagnosangivna sjukvårdsbesök.

Den huvudsakliga konklusionen av studien är att erfarenhet av föräldrars skilsmässa i barndomen (före 18 års ålder) för en majoritet av barn inte utgör en bestämmande faktor för mental eller fysisk ohälsa i ung vuxen ålder.

## LIST OF PAPERS

This thesis is based on the following papers, which are referred to in the text by their Roman numerals I - IV.

### **Paper I**

Ängarne-Lindberg, T., & Wadsby, M. (2009). Fifteen years after parental divorce: mental health and experienced life-events. *Nordic Journal of Psychiatry*, 63, 32-43.

### **Paper II**

Ängarne-Lindberg, T., & Wadsby, M. Sense of coherence in young adults with and without experience of parental divorce in childhood. Submitted to *Scandinavian Journal of Public Health*.

### **Paper III**

Ängarne-Lindberg, T., Wadsby, M., & Berterö, C. (2009). Young adults with childhood experience of divorce: disappointment and contentment. *Journal of Divorce and Remarriage*, 50, 172-184.

### **Paper IV**

Ängarne-Lindberg, T., & Wadsby, M. Psychiatric and somatic health in relation to experience of parental divorce in childhood. Submitted to *International Journal of Social Psychiatry*.

## **ABBREVIATIONS**

SCL-90	Symptom Check List
GSI	General Severity Index
PSDI	Positive Symptom Distress Index
PST	Positive Symptom Total
SOC-29	Sense of Coherence
LITE	Life Incidence of Traumatic Events

# INTRODUCTION

## Historical View

Swedish law up to 1810 acknowledged only two circumstances as an adequate basis for divorce. The first one was arbitrary abscond, meaning that the husband or the wife vanished without a trace or abandoned the family, the other was adultery/infidelity (Taussi-Sjöberg, 1992). Infidelity was according to the law the fastest way to reach a divorce. This was the most usual cause for divorce in the middle of the 19<sup>th</sup> century (Jacobson, 2001). The part causing the divorce had to give up all his/her property by marriage, if no other agreement was reached between the husband and wife (Taussi-Sjöberg, 1992). In order to understand the efforts made to prevent divorce we have to understand the meaning of marriage in pre-industrial Sweden. The marriage was not only ordained by God, but the constitution for a household, the foundation for society. As long as the households were functioning most people were also supported and under control. An attack on marriage constituted an attack on the continued existence of the society. Consequently both the church and the state had an interest in protecting it (Jacobson, 2001). From the aspect of the children, being born out of wedlock, having divorced parents or a mother or father that earlier had got a divorce but no approval for remarriage could mean no right of inheritance and in the eyes of the surrounding society a label of being a bastard (Isberg, 1959; Ohlander, 1992).

Marriage and life together were in the peasant society a public matter. Husbands and wives were to repeat stories of marital failures before priests, lay assessors and judges who all questioned the situation. The developing middle class, however, protected its private life, and the arbitrary abscond had in the 1890s replaced infidelity resulting in no exhortations from the priests, no warnings from the church council, and no public disgrace at the cathedral chapter (Fahlbeck, 2005; Jacobson,

2001; Taussi-Sjöberg, 1992) Literary discussions about life together/married life built upon love instead of ecclesiastical phrases and middle class convergences began to take place in the 19<sup>th</sup> century (Jacobson, 2002), with the 1915 divorce law, a more modern opinion was visible. The 1915 law approved to divorce with discord as the sole reason. The number of divorces doubled immediately after this and increased to the high divorce rates of the 1970s and 1980s (Taussi-Sjöberg, 1992). The development of the 20<sup>th</sup> century has implied a secularization of the view of marriage (Jacobson, 2001), even if an ethical basic outlook characterized by Christianity and the view of marriage as life-long has been present well up into the late 20<sup>th</sup> century (Fahlbeck, 2005). The change and development of society could be summed up in the three words industrialisation, secularization and urbanization (Jacobson, 2001). With an international comprehensive view, observers have attributed the increase in number of divorces in many countries over the decade to factors such as larger economic independence of women, rising expectations for personal fulfilment from marriage, and greater social acceptance of divorce (Amato, 2000).

## Marriages and Divorces

The number of persons that entered into marriage increased during the first part of the twentieth century and reached its highest point in the 1940s with the next peak in the middle of the 1960s. The number of marriages then declined between the years 1966-1973, presumably caused by an increase in number of persons living together without being legally married. The new rules for widow's pension in 1989 caused the next strong but temporary increase in number of marriages. The 21<sup>st</sup> century has shown a slight increase in the number of couples getting married compared to the end of the 20<sup>th</sup> century (Statistics Sweden, 2004), (Figure 1).

The divorce rate was low during the first part of the 20<sup>th</sup> century. The number of divorces has, however, gradually increased to peak in 1974 and 1975 owing to changes in the laws for divorce resulting in among other things that the legal divorce process has become quicker. The

number of dissolved marriages has since then been about 20.000 per year (Statistics Sweden, 2008), (Figure 1).

Less than one percent of all children, up to the age of 16 (in Sweden) experienced the divorce of their parents in the second and the third decades of the 20th century (Statistics Sweden, 2003). The number of children who came to experience parental separation (married or co-habiting) gradually increased to the 1980s and the 1990s but has then declined.

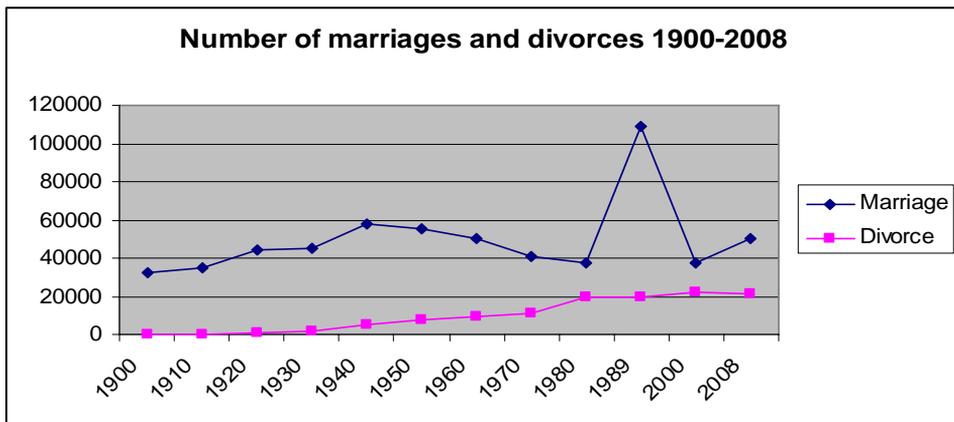


Figure 1.

Source: Statistics Sweden (2008), Description of the Population in Sweden.

In 1999, about one fourth of the Swedish-born 17-year olds had, during their childhood, experienced a separation (married or co-habiting) between their parents (Statistics Sweden, 2003). Separation is about twice as usual among cohabitants as among married couples (Statistics Sweden, 2007). In 2008, parental separation concerned 3 percent or 47000 children (Lundström, 2009), (Figure 2).

Characteristic for our time is that it is more common with couples moving/getting together as well as separating than in earlier decades. Living together as co-habitants is today for a large number of persons in Sweden, especially the younger, a part of life while searching for a steady partner. Cohabiting is replaced, however, in the older ages by marriage as the most common form of coexistence (Bernhardt, 2001).

There have been large changes in the view of children and family life in the last 100 years. The welfare of children and parenthood has become public matters, and the boundary for childhood has changed as has the view of parenthood and upbringing (Markström, Simonsson, Söderlind, & Änggård, 2009).

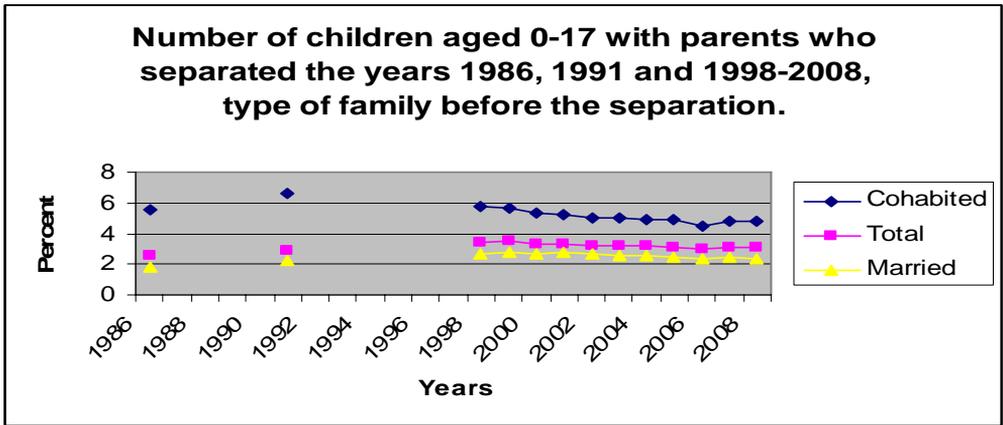


Figure 2.

Source: Statistics Sweden (2009), Children today.

Research on the possible consequences of divorce for children’s well-being has increased in parallel with the increasing divorce rates and different theories and perspectives have to be proposed in order to explain the effects of divorce/separation on children.

## THEORETICAL PERSPECTIVES

### Attachment Theory

The human child is according to Bowlby and his followers biologically destined to attach to her/his caregivers serving the evolutionary surviving function of keeping the child safe from danger. The child does not select the care-giving persons during the first half of the first year, but after that she/he starts to show preferences for the better known caregivers. The child seeks them and uses them as safe harbours or safe bases when stressful situations occur (Bowlby, 1969). The child can, depending on different circumstances, among other things deficient care, separations with long duration or loss of an attachment person, in opposition to secure development, develop an insecure attachment that could characterize the child's interpersonal orientation for the rest of its life (Bowlby, 1973). Attachment means an enduring inner representation of the relation to the parent incorporating a strong tendency to seek closeness to the parent in case of danger. To be attached to somebody means more than the seeking of closeness to avoid danger; in the course of time attachment becomes a part of our personality, the way in which we organize our inner life (Carlberg, 1994; Broberg, Granqvist, Ivarsson & Risholm-Mothander, 2006).

Parental divorce could mean the loss of an attachment person with whom I will not have the possibility of being fully attached to, or to whom I will not have full access. Studies emphasize the advantages of secure attachment in coping with divorce among both children and adults and in the parenting before and after the divorce (Cohen & Finzi-Dottan, 2005). Birnbaum et al (1997) found that attachment style moderated a person's emotional reactions to a divorce and was significantly related to the appraisal and coping with the crisis, which in turn mediated the association between divorce and mental health (Ainsworth, 1989) and Cohn, Cowan, Cowan & Pearson (1992) found that when qualities associated with secure attachment such as good communication skills, use of constructive coping strategies, and ability to

integrate contradictory emotions, regulate negative emotions, and solve conflicts constructively are present, they will, taken together, enable divorcing parents with a secure attachment style to share the parenting with each other.

## Psychodynamic Theory

The basis for the psychodynamic developmental theory is the idea that humans are in constant psychological development (Carlberg, 1994). Childhood is, however, the most intense developmental period and the psychological structure formed in childhood constitutes the foundation for an individual's future relation to others. The inner structure of the child is built through internalizing aspects of important persons and what they and the surrounding persons do with the child (Carlberg, 1994). The psychodynamic approach implies that disturbance can arise anywhere along the development of a person, and that the disturbance or deviation will have repercussions on the following development. The way in which the individual solves difficulties connected to different developmental stages will be decisive for the future. There will however always be possibilities to compensate for deficiencies in development and the fact that conflicts repeat themselves means there will be a possibility to solve the conflict (Carlberg, 1994).

Parental divorce in childhood could, according to the psychodynamic developmental theory among others, lead to disturbance or deviation possibly causing repercussions on the following development. The inner structure of the child might be formed by parents whose presence and possibility of seeing the child might be disturbed by conflicts or marital dissatisfaction etc. The possibility of injurious effects on the child could depend, according to psychodynamic developmental theory, on the abilities of the parents but also on the developmental stage of the child. It is, however, possible that potential deficiencies might be compensated for later in life.

## Family System Theory

According to family system theory, families are systems of interconnected and interdependent individuals. To understand the individual we must understand the family system of that individual. People cannot be understood in isolation from one another. Each action or change affects every other person in the family. Within family systems theory the focus is on how we relate to one another. We build a collection of interactions called a system, and our focus is on the system rather than just the individuals (Broderick, 1993).

Divorce results in a dissolution of the primary subsystem of the family causing changes in the family system. The process of divorce might result in changes in the characteristics of the family system, the rule by which the family members relate to one another. The loss of one parent might cause confusion in “who I am”, a sense of being lost in relation to one or both parents resulting in disappointment and loneliness (Ängarne-Lindberg, Wadsby & Berterö, 2009). The child may also in some cases run the risk of filling the role of an adult in comforting an abandoned parent (Ängarne-Lindberg, et al., 2009). The roles of the individuals in the family will probably change but this change does not necessarily eliminate the parent-child unit. It is not either evident that divorce will create a distance between the parents and the children (Broderick, 1993).

## Symbolic Interactionism

Symbolic interactionism is a sociological perspective. Society is looked upon as a total of all ongoing events of interaction, and society is apprehended as a process in continuous change and not as a constant structure. Human beings act toward things on the basis of the meanings that the things have for them. The meaning of such things is derived from, or arises out of, the social interaction that one have with one’s fellows. These meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things he or she encounters (Blumer, 1986).

Society and the view of divorce have gradually changed during the last century. According to symbolic interactionism the increase in number of

divorces should be seen in a larger context as a consequence of a society in constant change; larger economic independence of women, rising expectations for personal fulfilment from marriage, and greater social acceptance of divorce (Amato, 2000), with individuals reflecting each other resulting in new opinions and meanings of in this case marriage and divorce. The smaller context in which people live their lives could, however, depending on the values of the smaller context (family, village, church etc.) influence the effects the divorce has on an individual.

## Crisis Theory

When a person's experiences and acquired pattern of reaction are not sufficient to understand and handle a situation that has arisen, this person could be said to be in crisis. The crisis theory provides a model for adaptation to crisis following the four phases: shock, phase of reaction leading to a phase of processing the experience ending with a phase of re-orientation. To reach recovery and future well-being, each phase has to be properly dissolved (Cullberg, 2006).

Crisis theory assumes divorce to be an isolated traumatic event with different phases of shock, an event to which most people are supposed to adjust to over time, with factors such as personal resources determining the length of time for adjustment (Amato, 2000). The possibility of problems to appear later in life will, according to crisis theory, mean one or more phases not to have been properly dissolved.

## Stress Theory

Stress theory deals with the negative impacts of life events but also protective factors and coping capabilities resulting in differences in reactions to life events. In considering all types of stimuli, individual differences in response are crucial; so-called stressors may have no effect or may be either beneficial or harmful. The elements involved in these individual differences include personal characteristics, vulnerability and protective factors, a person's cognitive appraisal of the event and his process of coping with it (Rutter,

2006), (see further Risk and resiliency perspective and Overview of research field: Protective factors – Risk factors).

Amato (2000) also speaks about a divorce-stress-adjustment perspective. Divorce is not an isolated event starting with the physical separation of the parents, but a process beginning before the separation with an end long after the divorce has gained legal force. The divorce event will with certainty set a chain of other events in motion (Amato, 2000; Cherlin 1998). The outcome of these events will vary in severity and duration between persons depending on the presence of a variety of moderating or protecting factors (Amato, 2000), (see further Overview of research field: Protective factors – Risk factors). Even though the divorce-stress-adjustment perspective assumes the ending of a marriage to be stressful for most people, it might be accompanied by positive outcomes, as for example the end of acute conflict situations, and positive long-term consequences when people resolve their problems successfully (Amato, 2000).

## Risk and Resiliency Perspective

Resiliency emanates from the universal finding of huge individual differences in peoples' responses to life events. The term refers to the observation that some individuals retain a good psychological health despite difficult experiences. It implies resistance to or a good ability to conquer experiences of stress. Evidence has also been found that in some circumstances the experience of stress or adversity might even strengthen resistance and increases resistance to later stress (Rutter, 1981; Rutter, 2006). The question is, however, what the circumstances are that lead stress/adversity to result in a strengthening rather than a weakening of the mental health. Research on this matter is limited, but the probable main component seems to be some form of successful coping likely to include: physiological adoption, psychological habituation, sense of self-efficacy, the acquisition of effective coping strategies and/or cognitive redefinition of the experience (Rutter, 2006). Resilience is not a single quality but an interactive process, and people may be resilient to some hazards but not to others. They may also be resilient in relation to some kinds of outcomes but not to others.

In addition, people may be resilient at one time in life but not in others (Rutter, 2006).

The difference in reaction and effects of divorce between individuals should, from this perspective, be seen in the light of accessible resources. A successful settlement of a person after parental divorce depends on the interaction between the immediate situation and the coping capabilities.

## **OVERVIEW OF THE RESEARCH FIELD**

### **Longitudinal Studies on the Effects of Parental Divorce in Children**

Studies about consequences of parental divorce have shown varying results. Wallerstein et al (2000) emphasize, in the light of their 25 year follow-up, a crisis perspective claiming children to fully recover after parental divorce not to be valid. Children of divorce have been shown, in addition to experience of own failures in marriage, to experience problems related to economic conditions, education, use of alcohol/drugs, social competence and mental health (Cherlin, Chase-Lansdale, & McRae 1998; Gilman, Kawachi, Fitzmaurice & Bulka, 2003; Hope, Power & Rodgers, 1998; Hurre, Junkkari & Aro, 2006; Rodgers, Power & Hope, 1997; Thompson, 1998; Wallerstein & Lewis, 2004; Zill, Morrison & Coiro, 1993). The effects of divorce seem to be cumulative or delayed rather than to appear directly at the time of the divorce and then subside.

Divorce has also been pointed to as a stressor causing a decline in physical health pointing to larger risks for psychosomatic disorders, but also even the development of cancer (Hemminki & Chen, 2006; Masuda, Yamanaka, Hirasawa, Koga, Minomo, Muemoto & Tei, 2008; Nunes-Costa, Lamela, & Figueiredo, 2009)

A British longitudinal study contradicts this view to some extent, however, by establishing that the increased risk for mental ill-health among adolescent children of divorce compared to children with non-divorced parents was not present in adult age (Chase-Lansdale, Cherlin & Kiernan, 1995).

The answer to the question what are the possible effects of divorce might not be an “either or” answer, but rather that there is a great variability in individual response to parental divorce (Amato, 2000; Hurre et al., 2006), depending on a variety of different factors.

Hetherington & Stanley-Hagan (1999) established on the basis of their longitudinal research concerning risks and resilience among children of divorce that a majority of children who have experienced parental divorce, over time manage to adapt to the changed situation. Research about divorce and long-term effects on children supports the idea that for a majority of the children the effects have to do with resilience rather than persistent dysfunction (Amato, 1994, 2000; Hetherington, 2003; Kelly, 2000; Kelly & Emery, 2003). When consequences are seen they are the consequences of conflicts and other negative circumstances in the family rather than the separation itself, (Cherlin, et al., 1998; Gähler, 1998; Hope, et al., 1998; Katz & Woodin, 2002; Kelly, 1998; Nunes-Costa et al., 2009; Rhoades, 2008; Rodgers, et al., 1997) or the different circumstances surrounding the divorce.

Amato (2000) used the divorce-stress-adjustment perspective to summarize and organize the empirical literature on the consequences of divorce and differences in reaction. This perspective views divorce not as a sole event but as a process beginning before the separation with an end long after the legal completion of the divorce. The divorce sets numerous other events in motion, events that might affect the parties concerned differently. Multiple factors contribute to the vulnerability of adolescents to psychological and physiological disturbances following parental divorce (Amato, 2000; Thompson, 1998).

The severity and duration of the negative outcomes varies from person to person depending on the presence of a variety of protective factors respectively stressors/risk factors (Amato, 2000; Hetherington & Stanley-Hagan, 1999).

## Protective Factors – Risk Factors

Inter-parental conflict or hostility, the most frequently mentioned risk factor in the context of parental divorce (Cherlin, et al., 1998; Gähler, 1998; Hope, et al., 1998; Katz & Woodin, 2002; Kelly, 1998; Nunes-Costa et al., 2009; Rhoades, 2008; Rodgers, et al., 1997), is not only a direct stressor for children it might also interfere with children's attachment to parents, resulting in feelings of emotional insecurity (Amato, 2000; Hetherington & Stanley-Hagan, 1999).

Not all types of parental conflict are equally detrimental for children, nor are all children equally vulnerable to conflicts (children with an easy temperament, who are intelligent, social, and mature and who have an internal locus of control have been shown to be less affected). Parental conflicts that directly involve the child, are physically violent, threatening or abusive, and conflicts that put the child between his/her parents have the largest consequences for the well-being of the child. The nature of the conflict and how it is resolved have also been shown to influence the reaction of the child (Hetherington, 2003; Hetherington & Stanley-Hagan, 1999).

Resources that lessen or increase the negative impact of divorce might also reside within the individual (self-esteem, temperament, intelligence, locus of control, sense of humour, self-efficacy, coping skills, social skills etc.), in interpersonal relationships (social support) and in the way in which the divorce is apprehended by surrounding persons and the society (Amato, 2000; Hetherington & Stanley-Hagan, 1999).

The definition and meaning of divorce have also been shown to influence the outcome. Children (from low-conflict families) who get a reasonable explanation/understand the causes of the divorce tend to adjust better than those left without an explanation (Amato, 2000; Hetherington & Stanley-Hagan, 1999).

The quality of parental functioning has been said to be a very important factor for children's well-being. The importance of a functioning custodial parent is clear. Research has also shown that children are better adjusted when the custodial parent is in good mental health and also displays good child-rearing skills (Amato, 1994, 2000). Absence of the non-custodial parent/decrease in involvement with the non-custodial parent, most often the father, has been shown to be a risk factor. Research has called for the importance of contact with fathers for boys (Amato & Keith, 1991; Hetherington & Stanley-Hagan, 1999), but research has also shown the negative impact of divorce among girls to be mediated via low self-esteem and lack of closeness to father. When the relationship with the father was close, no excess risk of depression was found (Palosaari, Aro, & Laippala, 1996). Contact with a supportive, authoritative, reasonably well-adjusted non-custodial parent could enhance the adjustment of children and it has been shown that children in joint physical or legal custody were better

adjusted than children in sole-custody settings (Amato & Gilbreth, 1999; Bauserman, 2002; Hetherington & Stanley-Hagan, 1999).

Other factors mentioned that can moderate or aggravate the effects of divorce are economy, characteristics such as age and gender, relation to stepparents and number of negative or positive life events (Amato, 2000; Hetherington & Stanley-Hagan, 1999) etc. Divorce is for many associated with a decline in economic conditions, resulting in larger risks for economic distress affecting children negatively (Amato, 2000; Hetherington, 2003; Thompson, 1998). It has also been proposed that younger children may be more affected by divorce, since they are less able to understand what is happening around them, and have less access to possible support in relationships outside the family (Hetherington & Stanley-Hagan, 1999). Some studies have pointed at long-term effects of parental divorce as being stronger among females than males (Hurre et al., 2006; Rodgers, 1994; Storksen, Roysamb, Holmen & Tambs, 2006), and other studies to the contrary conclusion (Hetherington, Cox & Cox, 1999; Hetherington & Stanley-Hagan, 1999). The relation to stepparents has been shown to differ in importance depending on several factors such as stepparents' personality versus the child's personality, the biological parents' relationship with each other, and the child's relationship with his or her biological parents (Dunn, O'Connor & Cheng, 2005; Hetherington, 2003). A stepparent's ability to build a close authoritative relationship with a stepchild has, however, been shown to be closely related to the well-being of the child (Hetherington, 2003). The number of negative life events and multiple exposure to traumatic life-events have been found to predict children's adjustment and to be associated with high levels of symptoms thereby being a risk factor, and it has been proposed that researchers ought to avoid studies and assessments organized around a single form of event (Amato, 2000; Finkelhor, Ormrod & Turner, 2007; Green, Goodman, Krupnick, Corcoran & Petty, 2000).

Risk and protective factors outside the family interacting with individual and family factors have been shown to be increasingly important with age.

The presence of extra-familial factors as friends and school may help to shield children from deleterious effects of the parental divorce, but there is also a possibility of the opposite in case of lack of friends or a situation in school characterized by disorder (Hetherington, 2003).

The complexity of factors related to the well-being of children of divorce is difficult to fully survey. It has been established, however, that the well-being of the child is associated with the well-being of the parents and their relationship with each other. The family environment with the fewest risks for the children is a harmonious, intact, two-parent family. Children are at risk when they grow up in a conflicted home, whether the parents are separated or not (Hetherington & Stanley-Hagan, 1999).

## **PURPOSE OF THE THESIS**

The long-term research in Sweden about divorces and their effects on children was, at the time of the start of this dissertation, quite limited. The general purpose of the thesis was to study health and experiences, with the main focus on mental health, in a group of grown-up children of divorce in comparison to a group of persons the same age and gender, but without this experience.

The specific aims were:

- To study if young adults, 18-33 years of age, who had experienced parental divorce 15 years earlier differed in mental health from those with continuously married parents in view of different life events (I).
- To look at personal resources, defined as SOC (Sense of Coherence), as one possible factor explaining differences or similarities in mental health following experiences such as parental divorce, considering this factor when traumatic experiences other than a possibly traumatic parental divorce were also considered (II).
- To through the use of in-depth interviews identify and describe experiences of and reflections about parental divorce, among young adults, who experienced parental divorce as children (III).
- To study if the presence of a child and adolescent and/or a psychiatric record were more common among young adults age 0-18 at the time of the parental divorce, than among young adults without this experience, all of whom were within the public health care system. If so, were there

also differences in the diagnoses given and in the number of psychiatric consultations in the different groups (IV).

- To study whether possible overrepresentation in the divorce group could be connected to experienced parental divorce (IV).
  
- To investigate if there was a difference between the divorce and the non-divorce group in number of persons seeking relief for different somatic health problems, and if this in-patient and out-patient data held additional information about mental and behavioural problems. (IV)

## MATERIALS AND METHODS

The thesis is based on questionnaires, interviews, and information from psychiatric records and administrative data. An overview of the papers, Figure 4, and a description of sources, participants and methods used, Table 1, are presented below.

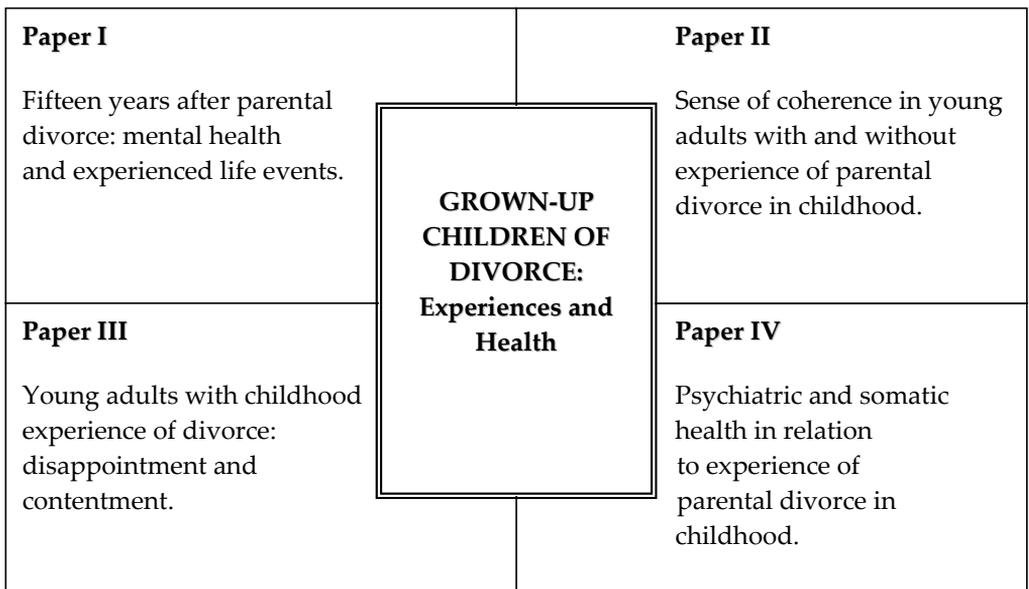


Figure 3 .Overview of the four studies comprising the thesis.

The studies in the present thesis originate from two data collections. Data in the first three studies were collected 15 years after the parental divorce, and data in the fourth study was collected five years later, when 20 years had passed since the divorce. The choice of combining three quantitative studies I, II and IV with one qualitative III, was made in order to get behind the figures of the quantitative data.

Table 1. Material and methods used in all papers/studies.

	<b>Paper I</b>		<b>Paper II</b>		<b>Paper III</b>	<b>Paper IV</b>	
	Divorce group	None-divorce group	Divorce group	Non-divorce group	Divorce group	Divorce group	Non-divorce group
<b>Source</b>	SCL-90 Life Events	SCL-90 Life Events	SOC-29 LITE Socio-economic data	SOC-29 LITE Socio-economic data	Interviews following an interview guide	Psychiatric records Administrative data	Psychiatric records Administrative data
<b>Number of participants</b>	48	48	69	55	10 out of 76	239	239
<b>Gender Men/Women</b>	22/26	22/26	29/40	31/24	5/5	120/119	120/119
<b>Age in years</b>	22-33 (7-18 at parental divorce)	22-33	22-33 (7-18 at parental divorce)	22-33	Men:23-30 Women:24-30 (7-18 at parental divorce)	21-38 (0-18 at parental divorce)	21-38
<b>Statistical methods</b>	Quantitative: Mann-Whitney <i>U</i> -test <i>t</i> -test Chi <sup>2</sup> test, Fisher's exact test. Regression analysis	Quantitative: Mann-Whitney <i>U</i> -test <i>t</i> -test Chi <sup>2</sup> test, Fisher's exact test. Regression analysis	Quantitative: Chi <sup>2</sup> test <i>t</i> -test Multiple linear regression analysis	Quantitative: Chi <sup>2</sup> test <i>t</i> -test Multiple linear regression analysis	Qualitative Latent content analysis	Quantitative Mann-Whitney <i>U</i> -test Chi <sup>2</sup> test, Fisher's exact test	Quantitative Mann-Whitney <i>U</i> -test Chi <sup>2</sup> test, Fisher's exact test

## Subjects

The studies were based on a one-year sample of children whose parents applied for divorce at the District Court in Linköping from July 1, 1987 to

June 30, 1988. Study I-III comprised all children aged 7-18 years at the time for the parental divorce 15 years before the start of the study, and study IV comprised all children aged 0-18 at the time for the parental divorce 20 years before the start of the study.

In study I-III, the divorce group consisted of 125 individuals, 67 women and 58 men. Seventy-six of those (42 women and 34 men) agreed to participate in the study; forty-nine did not. Of the non-participants two had parents who were remarried and 14 were impossible to reach: letters came back (3), they did not respond despite several attempts (7), and some with addresses abroad did not respond to our letter (4). Thirty-three persons declined to take part in the study due to lack of time having small children (6), not being interested (3), stated mental ill-health (3). The remaining individuals chose not to state any reason for non-participation (21), (Figure 3).

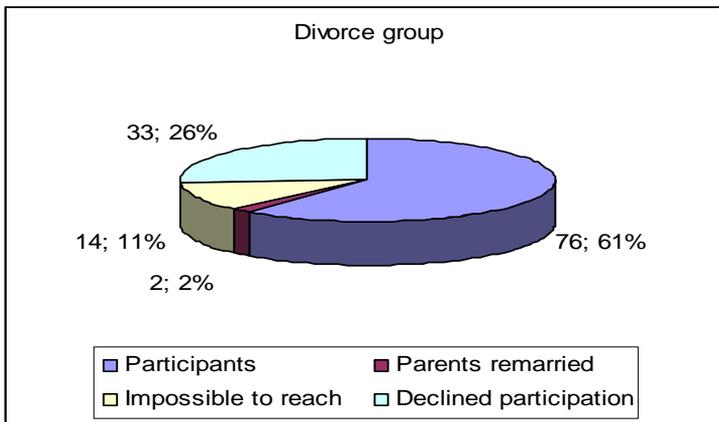


Figure 4. Participants and non-participants in the divorce group

A non-divorce group was formed through the register of population. Individuals with the same gender, born on the same or on the closest day following or preceding the birth-date of the individual in the divorce group, and who had parents still married to each other, were chosen for the study. Another criterion of selection was the living area; individuals in the divorce group who had grown up in one area were to be corresponded by persons in the non-divorce group living in the said (same) area at the time for the start of the study. Of the 125 individuals in the non-divorce group who were asked to

take part in the study, 63 chose to participate. Study IV is a record study with no drop-outs.

## **Procedure**

### **Paper I-III**

The divorce and non-divorce group were first sent an introductory letter with information about the study, how they were selected and with a request for participation. Both groups were informed that we were going to call them within a few days to ask them if they needed additional information about the study, and to ask them if they agreed to participate. All participants were further told that they were free to decline or to withdraw from participation at any time during the study, but also free to learn what had been documented about them. After getting consent from the participants in the divorce group, time and place for a personal meeting were settled, most often in the home of the participants (71%) or at the university department from which the study was administered. The meetings included an interview, and a review of the questionnaires.

After getting consent from the participants in the non-divorce group, time for a telephone-interview and a review of the questionnaires was settled.

### **Paper IV**

The process of the first part of the study started with a run-through of the databases that hold information about child/adolescent and adult psychiatric records. The presence of a record was checked for both divorce and non-divorce groups. The next stage was to seek the records of the persons who were marked in different archives. After having located the record, a careful run-through was done. Diagnoses according to DSM-IV were noted as were the nature of the consultation - with a psychiatrist, a psychologist or a social worker – and also if there were any possible divorce related difficulties.

The second part of study IV continued with a run-through of in- and out-patient data received from the administrative database (containing information about all county council health care) in the current area. Diagnoses according to ICD-10 and the number of different health care visits were noted for participants/members in both groups.

## Instruments/Sources

### SCL-90, Paper I, II

SCL-90 is an instrument developed by Derogatis (1994) out of the Hopkins Symptom Checklist (HSLC) from the 1960s. The instrument aims to measure how a person has felt during the preceding week. The questionnaire consists of 90 items all starting with "How much have you been bothered by:" The questions are answered on a five point scale from 0-4, where 0 corresponds to "not at all" and 4 to "very much". The items are distributed between nine subscales and three global scales, (Table 2).

*Table 2. The nine subscales and the three global scales in SCL-90*

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1. Somatization	Experience of physical difficulties. Possibly hypochondria.
2. Obsessive-Compulsiveness	To feel forced to think certain thoughts or repeat certain behaviours.
3. Interpersonal sensitivity	To be extremely observant of behaviours of others or changes in the surroundings.
4. Depression	Experiences of depression.
5. Anxiety	Experiences of extreme discomfort.
6. Hostility/Anger	Feelings of aggression towards others.
7. Phobic anxiety	Avoidance of certain unpleasant situations.
8. Paranoid ideation	Thoughts and feelings of persecution or outside threat.
9. Psychotism	<u>Shivered or confused thoughts.</u>
Global Severity Index (GSI)	General mental level of difficulties (average answer irrespective of subscale)
Positive Symptom Distress Index (PSDI)	The depth of the experienced difficulties.
Positive Symptom Total (PST)	<u>Number of symptoms.</u>

The instrument is standardized for the Swedish population, and it has been tested for validity and reliability with satisfactory outcome (Fridell, Cesarec, Johansson & Malling-Thorsen, 2002).

## Life events, Paper I

The Life Events inventory was developed by Coddington (1972a, b), and was revised and modified for Swedish conditions by Höök et al. (1995). The Swedish version of the questionnaire originally consisted of 48 items. Items concerning the subjects' adult experiences were added to the questionnaire, as the subjects were up to 33 years of age. In all, the inventory comprised 57 life events. For every event that had occurred, the year, value of the event (positive experience, neither positive nor negative experience, negative experience) and adjustment to the event (easy adjustment, neither easy nor difficult adjustment, difficult adjustment) were noted.

## SOC-29, Paper II

SOC-29 (Hansson & Cederblad, 1995; Hansson & Olsson, 2001) comprises 29 items or statements which are estimated on a seven point scale according to degree of agreement where 1 corresponds to low degree of agreement and 7 high degree of agreement (example: When you talk to other people, does it then feel like they understand? In this example 1 corresponds to "I never have that feeling" and 7 corresponds to "I always have that feeling"). The items are summed to give a total score constituting the single global factor SOC, comprising the three elements comprehensibility, manageability and meaningfulness (Antonovsky, 1993; Cohen & Savaya, 2003; Hansson & Olsson, 2001 ). The psychometric properties of the Swedish translation of the instrument have been tested. Cronbach's alpha has been established to be 0.88 (Hansson & Olsson, 2001). Face validity and consensual validity (Gassne, 2008) as well as criterion validity have been found to be acceptable (Eriksson & Lindström, 2005).

## LITE, Paper II

LITE comprises 16 questions concerning possible experiences of trauma or loss (Greenwald, Rubin, Russel, & O'Connor, 1999). The respondent states how many times an event has occurred, how old he or she was at the time for the event, how upset he or she was then, and how much the experience affects him or her today. Only the occurrence of different traumatic life events were considered since the occurrence of different traumatic life events has been shown to be more symptomatic than repeated episodes of the same kind of traumatic event (Finkelhor et al., 2007). To equalize the divorce and the non-divorce group in the comparison the item concerning parental divorce was excluded. The LITE scale has been tested and found reliable for the Swedish population; test-retest reliability was 0.76 according to both Spearman-Brown's and Pearson's correlation test (Nilsson, Gustavsson, & Svedin, 2010). The scale is not yet properly validated, but only a simple yes/no format was used in the analysis of the study.

## Interview, Paper III

An interview guide was used to ensure that the same basic lines of inquiry were pursued with each person interviewed (Patton, 2002). The interview guide provided topics and subject areas within which the interviewee was free to expound his or her thoughts, and the interviewer to explore, probe and ask questions that elucidated or illuminated the particular subject. The topics were thoughts and emotions about the parental divorce, memories and experiences connected to the divorce, consequences of the divorce (emotionally and practically, now and then), circumstances surrounding the divorce (facilitating or aggravating), access to somebody to talk to (if needed or not needed), and possible learning from the parents' divorce (positive or negative).

## Psychiatric Records and Administrative Data, Paper IV

The instruments/sources used in study IV were psychiatric records and information from the administrative database about in- and outpatient diagnoses, psychiatric as well as somatic.

### Effect-size – Test of significance

All three quantitative papers/studies contained test of significance, but no effect-size. Effect-size, Cohen's *d*, was therefore added for each study below. Effect-size  $\leq 0.20$  is considered as small, effect-sizes about 0.20-0.50 as moderate, and effect-size 0.80 or larger as large (Cohen, 1988).

The non-parametric Mann-Whitney *U*-test was used in several analyses since the sample did not show normal, but a skew distribution. As a comparison to the non-parametric Mann-Whitney *U*-test when calculating Cohen's *d*, *t*-test was performed. No or small differences in significance between Mann-Whitney and *t*-test was present. When comparing differences between groups Chi<sup>2</sup>-test (or Fisher's exact test) were used in all studies but one, and since Chi<sup>2</sup>-test only shows differences in frequency between the groups, no Cohen's *d* was calculated.

## Paper I

In Table 3 the test of significance shows non significance in all but two scales, and Cohen's *d* shows low to moderate effects in every scale. The two subscales "Paranoid ideation" and "Psychotism", show a significant difference with respect to random variation and the size of the sample, and there is an effect, but the size of the effect (Cohen's *d*) is shown to be small to moderate in relation to the random variation.

Table 4a, column a/b and a/c shows strong significant differences between the divorce and the non-divorce group in every scale, and the effect-sizes (Cohen's *d*) are large. Column c/d shows strong significant differences between the groups in three scales and the size of the effects is in most scales

moderate to strong. Column b/d shows significant differences between the groups in five scales, all of them with large effect-sizes.

Table 4b, column e/f, g/h, e/g, f/h shows no significance, and mainly small to moderate effects (Cohen's *d*).

Table 3 (Table 1, Paper I). Symptom Checklist (SCL-90): comparison between the divorce and the non-divorce group, means, standard deviation (*s*) and test of significance.

Subscale	Divorce group (n=48)		Non-divorce group (n=48)		Test of significance Mann-Whitney <i>U</i> -test / <i>t</i> -test	Cohen's <i>d</i>
	Mean	<i>s</i>	Mean	<i>s</i>	<i>p</i> -value	
Somatization	0.46	0.47	0.30	0.29	<i>ns</i>	0.41
Obsessive-c	0.70	0.64	0.58	0.60	<i>ns</i>	0.19
Interpers sens	0.53	0.57	0.38	0.43	<i>ns</i>	0.30
Depression	0.61	0.57	0.48	0.47	<i>ns</i>	0.25
Anxiety	0.58	0.62	0.34	0.33	<i>ns</i>	0.48
Hostility	0.39	0.47	0.28	0.37	<i>ns</i>	0.26
Phobic anxiety	0.13	0.24	0.10	0.20	<i>ns</i>	0.14
Paranoid idea	0.52	0.59	0.28	0.41	<0.05	0.47
Psychotism	0.20	0.26	0.16	0.31	<0.05	0.14
GSI	0.47	0.41	0.34	0.30	<i>ns</i>	0.36
PSDI	1.42	0.41	1.34	0.35	<i>ns</i>	0.21
PST	25.94	17.36	20.88	16.04	<i>ns</i>	0.30

Table 4a (Table 2a, Paper I). Symptom Checklist (SCL-90): age-divided comparison between women in the divorce group and the non-divorce group; mean, standard deviation (s) and test of significance.

Subscale	Divorce	Non-divorce	Divorce	Non-divorce	Test of				Cohen's			
	group	group	group	group	Significance							
	Women	Women	Women	Women	Mann-Whitney							
	Age 22-27	Age 22-27	Age 28-33	Age 28-33	U-test							
	(n=11)	(n=11)	(n=15)	(n=15)								
	Mean (s)	Mean (s)	Mean (s)	Mean (s)	p-value				<i>d</i>			
	(a)	(b)	(c)	(d)	(a/b)	(c/d)	(a/c)	(b/d)	(a/b)	(c/d)	(a/c)	(b/d)
Somatization	0.93 (0.53)	0.23 (0.19)	0.26 (0.24)	0.41 (0.40)	<0.001	<i>ns</i>	0.001	<i>ns</i>	1.62	-0.45	1.63	-0.57
Obsessive-com	1.26 (0.67)	0.30 (0.29)	0.35 (0.33)	0.93 (0.78)	<0.001	0.01	0.001	0.01	1.86	-0.97	1.72	-1.07
Interpers sens	1.00 (0.65)	0.25 (0.31)	0.31 (0.39)	0.45 (0.44)	<0.01	<i>ns</i>	0.01	<i>ns</i>	1.47	-0.34	1.29	-0.52
Depression	1.14 (0.55)	0.27 (0.28)	0.39 (0.42)	0.74 (0.52)	<0.001	0.01	0.001	0.05	1.99	-0.74	1.53	-1.12
Anxiety	1.17 (0.69)	0.24 (0.24)	0.42 (0.60)	0.37 (0.41)	<0.001	<i>ns</i>	0.01	<i>ns</i>	1.8	0.1	1.16	-0.39
Hostility	0.76 (0.39)	0.24 (0.29)	0.17 (0.20)	0.38 (0.51)	<0.01	<i>ns</i>	0.001	<i>ns</i>	1.51	-0.54	1.90	-0.34
Phobic anxiety	0.34 (0.36)	0.03 (0.09)	0.05 (0.15)	0.12 (0.20)	<0.01	<i>ns</i>	0.01	<i>ns</i>	1.18	-0.4	1.05	-0.58
Paranoid ideation	0.34 (0.36)	0.03 (0.09)	0.05 (0.15)	0.12 (0.20)	<0.01	<i>ns</i>	0.01	<i>ns</i>	1.18	-0.4	1.05	-0.58
Psychotism	0.42 (0.34)	0.06 (0.15)	0.06 (0.12)	0.27 (0.43)	<0.001	<i>ns</i>	0.001	<i>ns</i>	1.37	-0.66	1.41	-0.65
GSI	0.91 (0.39)	0.20 (0.17)	0.26 (0.25)	0.48 (0.38)	<0.001	<i>ns</i>	0.001	0.05	2.36	-0.68	1.98	-0.95
PSDI	1.75 (0.33)	1.21 (0.20)	1.29 (0.47)	1.51 (0.32)	<0.001	0.01	0.01	0.05	1.98	-0.55	1.13	-1.12
PST	43.82 (14.96)	14.36 (12.01)	16.27 (11.99)	27.93 (20.50)	<0.001	<i>ns</i>	0.001	0.05	2.17	-0.69	2.03	-0.81

Table 4b (Table 2b, Paper I). Symptom Checklist (SCL-90): age-divided comparison between men in the divorce group and the non-divorce group; mean, standard deviation (s) and test of significance.

Subscale	Divorce	Non-divorce	Divorce	Non-divorce	Test of				Cohen's			
	group	group	group	group	Significance							
Men	Men	Men	Men	Men	Mann-Whitney							
Age 22-27	Age 22-27	Age 28-33	Age 28-33	Age 28-33	U-test							
(n=11)	(n=11)	(n=11)	(n=11)	(n=11)								
Mean (s)	Mean (s)	Mean (s)	Mean (s)	Mean (s)	p-value				d			
(e)	(f)	(g)	(h)	(e/f)	(g/h)	(e/g)	(f/h)	(e/f)	(g/h)	(e/g)	(f/h)	
Somatization	0.25 (0.16)	0.34 (0.28)	0.44 (0.51)	0.21 (0.16)	ns	ns	ns	ns	-0.39	0.60	-0.50	0.57
Obsessive-com	0.68 (0.40)	0.45 (0.39)	0.66 (0.70)	0.49 (0.52)	ns	ns	ns	ns	0.58	0.27	0.41	-0.09
Interpers sens	0.37 (0.22)	0.36 (0.35)	0.51 (0.63)	0.40 (0.53)	ns	ns	ns	ns	0.03	0.19	-0.30	-0.09
Depression	0.50 (0.35)	0.41 (0.32)	0.51 (0.62)	0.41 (0.50)	ns	ns	ns	ns	0.26	0.18	-0.02	0.00
Anxiety	0.38 (0.35)	0.43 (0.44)	0.41 (0.42)	0.32 (0.24)	ns	ns	ns	ns	-0.12	0.26	-0.08	0.31
Hostility	0.33 (0.68)	0.27 (0.33)	0.38 (0.45)	0.19 (0.27)	ns	ns	ns	ns	-0.12	0.51	-0.09	0.26
Phobic anxiety	0.05 (0.07)	0.05 (0.11)	0.11(0.20)	0.14 (0.28)	ns	ns	ns	ns	0.00	-0.12	-0.40	-0.42
Paranoid ideation	0.31 (0.33)	0.38 (0.33)	0.49 (0.63)	0.24 (0.34)	ns	ns	ns	ns	-0.21	0.49	-0.36	0.42
Psychotism	0.23 (0.22)	0.10 (0.17)	0.17 (0.22)	0.14 (0.29)	ns	ns	ns	ns	0.66	0.17	-0.27	-0.17
GSI	0.38 (0.18)	0.33 (0.21)	0.41 (0.41)	0.29 (0.27)	ns	ns	ns	ns	0.25	0.35	-0.09	0.16
PSDI	1.36 (0.26)	1.41 (0.29)	1.33 (0.36)	1.24 (0.36)	ns	ns	ns	ns	-0.18	0.22	0.09	0.45
PST	28.38 (7.21)	20.50 (13.60)	23.71 (18.62)	18.64 (12.99)	ns	ns	ns	ns	0.26	0.32	-0.02	0.14

## Paper II

Table 5 shows a significant difference between the divorce and the non-divorce group only in LITE ( $p < 0.01$ ), and the size of the effect (Cohen's  $d$ ) is moderate.

**Table 5 (Table 3, Paper II).** Comparison between divorce and non-divorce group concerning Sense of Coherence (SOC), Symptom Check List (SCL-90/Global Severity Index, GSI), and Life Incidence of Traumatic Events (LITE).

	Divorce group (n= 69)		Non-divorce group (n= 55)		Cohen's <i>d</i>
	Mean	<i>s</i>	Mean	<i>s</i>	
SOC-29	145.8	23.2	153.0	19.1	-0.34
SCL-90	0.48	0.43	0.36	0.38	0.29
LITE	4.2**	2.5	3.1	1.8	0.50

Note: Global Severity Index (GSI), designed to measure overall psychological distress.

<sup>a</sup> Number of different traumatic life events, the divorce event excluded.

\*\*  $p < .01$  (*t*-test)

**Table 6 (Table 4, Paper II).** Sense of Coherence. Age-divided comparison between women in the divorce and the non-divorce group, and between men in the divorce and the non-divorce group.

<u>Divorce group</u>		<u>Non-divorce group</u>		<u>Divorce</u>		<u>Non-divorce group</u>		Test of significance			
Women		Women		Women		Women					
Age 22-27		Age 22-27		Age 28-33		Age 28-33		<i>t</i> -test			
(n = 22)		(n = 15)		(n = 18)		(n = 16)		<i>p</i> -value			
Mean	<i>s</i>	Mean	<i>s</i>	Mean	<i>s</i>	Mean	<i>s</i>	a/b	c/d	a/c	b/d
(a)		(b)		(c)		(d)					
126.1	23.6	158.7	17.7	160.4	14.9	143.0	23.2	**	*	***	*
Cohen's <i>d</i>								-1.56	0.89	-1.73	0.76
Men		Men		Men		Men					
Age 22-27		Age 22-27		Age 28-33		Age 28-33		<i>t</i> -test			
(n = 14)		(n = 8)		(n = 15)		(n = 16)		<i>p</i> -value			
Mean	<i>s</i>	Mean	<i>s</i>	Mean	<i>s</i>	Mean	<i>s</i>	e/f	g/h	e/g	f/h
(e)		(f)		(g)		(h)					
144.8	20.7	152.7	9.9	144.4	28.6	154.7	18.1	ns	ns	ns	ns
Cohen's <i>d</i>								-0.49	0.89	.0016	-0.14

\*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$

Table 6 shows significant differences ( $p < 0.05$ - $0.001$ ) between the women, with large effect-sizes. No significant differences between the men in the divorce and the non-divorce group were shown, and the effect-size (Cohen's  $d$ ) was mainly low to moderate, in one case high (age 28-33 divorce/non-divorce group).

## Paper IV

Table 7a (Table 3a, Paper IV). Type of consultation among persons in the divorce and the non-divorce group with a record in child and adolescent psychiatry.

Type of consultation	Number of consultations						Test of significance (Mann-Whitney $U$ -test)	Cohen's $d$
	Divorce group ( $n=48$ ) <sup>a</sup>			Non-divorce group ( $n=5$ )				
	Mean	SD	Range	Mean	SD	Range		
Total	11.2	15.4	(1-94)	18.8	34.2	(2-80)	NS	-0.28
First consultations. <sup>b</sup>	1.1	0.3	(1-2)	1.0	0.0	(1-1)	NS	0.00
Subsequent consultations	10.1	15.4	(0-93)	17.8	34.2	(1-79)	NS	-0.29
Proportion of the total that were:								
Consultations with psychiatrist <sup>c</sup>	4.4	4.7	(1-21)	28.0	0.0	(28-28)	NS	-7.10
Consultations with psychologist or social worker	10.5	13.9	(1-73)	13.2	21.7	(2-52)	NS	-0.15

<sup>a</sup> 2 files are missing.

<sup>b</sup> First visit is recorded when > 18 months have elapsed since last consultation.

<sup>c</sup> One person can consult both psychiatrist and psychologist/social worker.

Table 7a shows no significant differences between the divorce and the non-divorce group, and the effect-size is small to moderate with one exception (Consultation with psychiatrist), this result however only concerns one person with a large number of consultations.

Table 7b shows no significant differences between the divorce and the divorce-group, and the effects-size is moderate.

Table 7b (Table 3b, Paper IV). Type of consultation among persons in divorce group and non-divorce group with record in adult psychiatry.

Type of consultation	Number of consultations						Test of significance (Mann-Whitney <i>U</i> -test)	Cohen's <i>d</i>
	Divorce group ( <i>n</i> =14) <sup>a</sup>			Non-divorce group ( <i>n</i> =12) <sup>b</sup>				
	Mean	SD	Range	Mean	SD	Range		
Total	25.4	9.6	(1-107)	15.4	11.6	(1-34)	NS	0.44
First consultations <sup>c</sup>	1.2	0.4	(1-2)	1.1	0.3	(1-2)	NS	0.28
Subsequent consultations	24.1	29.6	(0-106)	14.1	11.7	(0-33)	NS	0.44
Proportion of the total that were:								
Consultations with psychiatrist <sup>d</sup>	14.3	27.7	(1-107)	4.7	3.4	(2-12)	NS	0.49
Consultations with psychologist <sup>d</sup> or social worker	28.8	24.0	(5-75)	19.7	7.4	(10-31)	NS	0.51

<sup>a</sup> 2 files are missing.

<sup>b</sup> 4 files are missing.

<sup>c</sup> First visit is recorded when > 18 months have elapsed since last consultation.

<sup>d</sup> One person can consult both psychiatrist and psychologist/social worker.

There is a possibility that the test of significance would have shown significance in other scales with access to a larger sample, and there is also a possibility that the few significances could disappear, since a larger sample offers fewer probabilities for chance to operate. It should also be mentioned that the observed small to moderate effects could be of importance for a considerable number of persons if reflecting the whole population.

The results from the test of significance should be interpreted with caution since the small samples when divided for gender and age might contain too many extremes and might not reflect the conditions seen in the whole population. It is, however, the results in this study and the size of the effect (Cohen's *d*) in the columns with the strongest significances, were in most cases moderate to very large indicating relatively strong effects i.e. differences between groups following the tests of significances made.

## **Ethical Considerations**

The material for the first three studies was collected 15 years after parental divorce. The ethical considerations that preceded the collection concerned among other things if it was ethically defensible to ask questions about an experience that in varying ways might have been emotionally trying, and if questions about mental health and experienced life events could be conceived as being too personally intrusive. The proportionately long time that had passed since the divorce was assumed, however, to have alleviated the strain of the parental divorce, and the participation was voluntary. There was also a possibility that participation in the study could be interpreted as something positive.

The ethical considerations that preceded the fourth study called for even more thoughtfulness since the study required access to psychiatric records and mental and somatic out- and in- patient health care diagnoses. The information obtained was, to be noted by one person, and the result only to be accounted for group- or gender-wise, with no possibility that any individual could be identified. All studies (I-III, IV) were approved by the Human Research Ethics Committee at the Faculty of Health Sciences, Linköping University (Dnr 03-249, Dnr 139-08), and permission for access to the psychiatric records was also granted by the heads of the child/adolescent and adult psychiatric clinics at the current hospital.

## SUMMARY OF RESULTS

### Paper I – Fifteen Years after Parental Divorce: Mental Health and Experienced Life Events.

A weak but significant difference between the divorce and the non-divorce groups in two of the nine subscales of the mental health inventory SCL-90 was found ( $p < 0.05$ ). The greater part of the subscales, however, showed no significant differences and neither did any of the global scales GSI (General Severity Index), PSDI (Positive Symptom Distress Index) and PST (Positive Symptom Total).

Keeping the limited number of participants in mind, a pronounced difference was noted when the groups were age and gender divided. Women aged 22-27 years at the time for the study or 7-12 years at the time for the parental divorce scored significantly higher on every symptom scale than others in the study ( $p < 0.05-0.001$ ). Older women (28-33) in the divorce group scored significantly lower, than women the same age in the non-divorce group ( $p < 0.01-0.05$ ). No significant difference was observed between men or between men and women.

The divorce group had in total experienced a significantly greater number of life events than the non-divorce group ( $p < 0.05-0.001$ ), the divorce event excluded. The experienced events had also been experienced as more negative ( $p < 0.001$ ) and more difficult to adjust to ( $p < 0.001$ ) in the divorce group than in the non-divorce group.

The regression analysis showed no significant connection between mental health and the divorce event alone, however other events described as “negative experiences with difficult adjustment” did show a significant connection to poorer mental health ( $p < 0.05$ ).

## Paper II – Sense of Coherence in Young Adults with and Without Experience of Parental Divorce in Childhood.

No significant difference was found between the SOC-29 scores of the divorce and the non-divorce group. However, younger women in the divorce group (age 22-27) showed a significantly lower SOC than all other participants, men as well as women ( $p < 0.05$ - $0.001$ ), while older women in the divorce group (age 28-33) showed a significantly higher SOC than women of the same age in the non-divorce group ( $p < 0.05$ ). There were no significant differences between men or between men and women as a whole. The divorce group had experienced a significantly larger number of traumatic life events than the non-divorce group ( $p < 0.01$ ). The multiple linear regression analysis showed a significant connection between a high SOC-29 and a low SCL-90/GSI ( $p < 0.001$ ), but no significant connection between SOC-29 and LITE. There was a significant difference ( $p < 0.001$ ) between the groups in socioeconomic position explained mainly by the circumstance that there were more students in the divorce group than in the non-divorce group.

## Paper III – Young Adults with Childhood Experience of Divorce: Disappointment and Contentment

Through using qualitative content analysis the two categories disappointment and contentment were crystallized. The analysis showed that disappointment consisted of the two subcategories “disappointment toward one or both parents” and “disappointment with relatives and other surrounding persons”. Contentment consisted of four subcategories: “contentment in the belief that the members of the original family received a good or even better life after the divorce”, “contentment with how the divorce was handled by the parents”, “contentment and inner strength as a part of the child’s own personality”, and “contentment with receiving adequate help during and after the parental divorce”.

The findings indicated disappointment and non-optimal chances for adjustment to parental divorce but also quite the opposite, contentment and good chances for adjustment over time.

## Paper IV – Psychiatric and Somatic Health in Relation to Experience of Parental Divorce in Childhood

A significantly greater number of persons from the divorce group occurred in child and adolescent psychiatric care ( $p < 0.001$ ), and this was most pronounced for women ( $p < 0.05$ ), but no significant difference was found between the divorce and the non-divorce groups either in gender or in the number of persons with adult psychiatric contacts. There was no significant difference between the divorce and the non-divorce group as concerned frequency or type of consultations, *i.e.* first or subsequent consultations and frequency of consultations with psychiatrist or psychologist/social worker.

In child and adolescent psychiatric care, “disorders usually first diagnosed in infancy childhood or adolescence” ( $p < 0.05$ ), “mood disorders” ( $p < 0.05$ ) and “additional codes” ( $p < 0.001$ ) were diagnoses (DSM IV) more common in the divorce group than in the non-divorce group. The most common diagnoses in the diagnosis group “additional groups” were to be preferentially referred to relational difficulties between family members and antisocial behaviour. Only one record contained direct information about difficulties mentioned as divorce-difficulties. Records from adult psychiatry showed no significant differences between the divorce and the non-divorce groups.

As concerned somatic health problems, a difference between the divorce and the non-divorce groups was noted in out-patient care in five diagnosis groups (ICD-10). More frequent in the non-divorce group were: “neoplasms” ( $p < 0.01$ ), “endocrine, nutritional and metabolic diseases” ( $p < 0.05$ ), “diseases of the musculoskeletal system and connective tissue” ( $p < 0.001$ ), and “factors influencing health status and contact with health services”, ( $p < 0.001$ ), and one more frequent in the divorce group was: “injury, poisoning and certain other consequences of external causes” ( $p < 0.001$ ). A significant difference between the divorce group and the non-divorce group in in-patient care was only present in the diagnosis group “external causes of morbidity and mortality” ( $p < 0.05$ ), the non-divorce group scoring higher in occurrence. No significant difference was observed, in number of out-patient or in-patient health care visits for “mental and behavioural disorders” experienced by the divorce and the non-divorce group, when information from the administrative data was added.

## **DISCUSSION**

The general purpose of the thesis was to study health and experiences in a group of grown-up children of divorce in comparison to a group of persons of the same age and gender living in the same area, but without this experience.

The mental health, experienced life events, narratives of divorce-related experiences and personal resources were examined in a group of young adults (age 22-33 years) whose parents divorced 15 years before the start of the study. In addition to this the presence of a child/adolescent and/or an adult psychiatric record and ten years of diagnosed physical health visits in the same but extended group (age 21-38 years) was examined 20 years after parental divorce.

### **Limitations and Strengths of the Studies**

Before discussing the results, some limitations should be addressed. A weakness of the first three studies is the size of the study groups, the drop-out and the even smaller size of groups after the total groups had been divided for gender and age. A larger group would have been desirable in order to have a broader basis for interpreting the outcomes and to increase the reliability of the results; irrespective of whether the potential participants did or did not give reasons for declining to participate, this might have influenced the results and the reliability.

Strengths of the studies increasing the reliability were, that the divorce group and the non-divorce group were matched on age, date of birth and on living area. The participants were thereby equalized by at least these factors. Time since parental divorce was the same for all participants (closeness/distance to the divorce event), making the possibility of an effect of time to operate equally for all of them. Another strength was that life events besides the parental divorce that could have influenced the participants were taken into consideration, increasing the information and reducing the risks for incorrect conclusions. The contributors were also personally contacted and thereby

given the opportunity to ask questions and get clarifications of the instruments that were to be filled in. This possibly increased the reliability of the answers, and decreased the risk for internal drop-out.

Quantitative research gives empiric quantifiable data a central role in order to find causal connections, while qualitative research emphasises holistic and qualitative information where the main task is to interpret and understand the results. The combination of three quantitative studies and one qualitative study could be questioned and seen making results from one kind of study incompatible with those of the other, as could the choice of qualitative method by quantitative researchers. The choice to do both quantitative and qualitative studies was made, however, in order to strengthen the study and get behind the numbers of quantitative data, this in accordance with research of our days pointing at possibilities rather than limitations of combining quantitative and qualitative methods (Wolming, 1998).

The aim of the fourth study was to investigate the presence of child/adolescent and/or adult psychiatric records, and number of diagnosed physical health care visits in the groups examined earlier. The intention was also to increase the knowledge and reliability of the thesis through enlarging the groups to incorporate all persons who were between 0-18 years old at the time for the parental divorce, and as it was a study of registers there were no drop-outs. Circumstances that might have influenced the outcome of the fourth study should also be addressed. Psychiatric health care could have been received elsewhere than within the public health care service, even if most of the identified and severe cases in Sweden probably will be referred to the psychiatric clinics or otherwise will be recognized within other elements of the public health care system. Individuals in both divorce and non-divorce group had also presumably moved both in and out of the reception area during the twenty years that has passed since the divorce. A complete and accurate picture of possible mental health problems among persons with childhood experience of parental divorce is therefore difficult to obtain. The results probably do give, taken all together, a reasonably sound picture of the health of the divorce group in comparison to the non-divorce group.

## **Reliability and Validity of the Thesis**

The general purpose of the thesis was to study the health and experiences, with the main focus on mental health, in a group of grown-up children of divorced parents in comparison to a group of persons without this experience. Sources used (standardised instruments, personal interviews, psychiatric records, and registers/administrative data of diagnosed health care visits) to study this pointed in the same direction (towards good mental health in a majority of persons in both groups, no difference in number of persons with a psychiatric contact in young adulthood, no difference in mental and behavioural diagnoses within somatic in- and out-patient care, and small differences in somatic health care diagnoses). The reliability and validity of the thesis as concerned results from the sources used thereby showed reasonable stability, measuring what it was intended to measure, factors associated with health, first and foremost mental health.

Size of groups, and drop-outs in study I-III could have affected the reliability of the studies, as mentioned earlier. By increasing the size of the study-groups and with a guarantee for no drop-out, study IV to some extent counterbalanced this and thereby increased the reliability of the results.

The reliability and validity of qualitative method have been questioned based on the size of the sample, the possibility of leading questions, and incorrect interpretations (Wolming, 1998). The findings in a qualitative study can not be generalized but might, be transferred to a similar sample (Morse, 1991). In qualitative studies it is a matter of creating an understandable description of how the data were collected, worked on and analysed (Malterud, 1998) which was hopefully done. The interviews were recorded and transcribed verbatim by the author, and the correspondence between tapes and transcriptions was checked by an experienced interviewer at the department. All categories were validated through a systematic review of the material, and by the analysis and findings checked by an experienced and competent qualitative researcher.

## **Discussion of the Results**

Little evidence was found in the study for experience of parental divorce in childhood to be a cause for poorer mental health in young adulthood.

A majority of the participants in the divorce group showed good mental health, but a smaller group of younger women in the divorce group showed poorer mental health than others in the study. When looking at/analysing the results it is difficult to overlook the influence of personal resources (SOC) in coping with different life events.

Antonovsky (1991), who created the concept SOC, spoke about a state of tension that needs to be handled when we meet different stressors (for example an adverse life event such as parental divorce) and individuals differ in resources available to handle these stressors. The stressor is in itself not decisive for the outcome, but rather how we deal with it/our ability to deal with it. An inter-play between factors in the surroundings and individual factors helps the individual to deal with the stressor (Gassne, 2008). Even if factors in the surroundings that could contribute to a reduction of stress are present, it is not certain that the individual is capable of utilizing them (Gassne, 2008). Antonovsky (1991) suggested that special attention should be paid to general resources of resistance. Examples of resources of resistance are strength in one self, social support, cultural stability and good economy. The concept SOC is tangential to stress research and coping (Gassne, 2008). SOC does, however, unlike stress research that focuses on how persons handle specific stressors, focus on life in its entirety, with all its variability (Gassne, 2008).

The risk and resiliency perspective is another perspective tangential to SOC pointing at possible underlying factors (tangential to Antonovsky's concept resources of resistance) affecting the divergent outcome in settlement after adverse life events. According to the risk and resiliency perspective, a successful settlement of a person after, in this case parental divorce, depends on the interaction between the immediate situation and the coping capabilities of each individual, meaning physiological adaptation, psychological habituation, sense of self-efficacy, the acquisition of effective coping strategies and/or cognitive redefinition of the experience (Rutter, 2006). Divorce is not to be seen as an isolated event to which children (and adults) must adjust but rather as a process. Amato (2000) uses the divorce-

stress-adjustment perspective that views divorce not as a discrete event but as a process that begins long before the separation and ends long after the legal divorce is concluded. The divorce also sets numerous new events into motion, events that could be experienced as stressful. The gravity and duration of the negative outcomes of these events differs between persons depending on a variety of moderating or protective factors.

With these views in mind (SOC, coping, risk and resiliency perspective, divorce-stress-adjustment) it is quite obvious that it might be going too far to believe that one could draw conclusions suitable for each and every person involved in a divorce process. The effect of a stressor such as parental divorce has to be seen in the context of protective or risk/buffering factors (Luthar, Cicchetti & Becker, 2000).

It might, be possible to talk about risk factors or vulnerabilities increasing the risk for some factors to operate causing negative outcomes, or the importance of awareness of protective factors decreasing the risk for negative outcomes in time directly connected to the divorce or in a long view.

The results in this study pointed at the younger women, aged 7-12 at the time of the parental divorce or 22-27 at the time of the study, as being the more vulnerable group. This result should be discussed, even if interpreted with caution considering the low number of participants. It could be argued that the instruments used refer to internalizing responses, and since boys are better known to express externalizing responses this could explain the poorer mental health among the younger girls in the divorce group (Gähler, 1998). This does not, however, explain the mental health of the remaining women.

Cyranowski et al (2000) notes a gender-linked vulnerability explaining why females, especially in combination with adolescent transitional difficulties, are more likely than males to become depressed when faced with negative life events, particularly life events with interpersonal consequences. Pelkonen et al (2008) point to female gender as a risk factor for episodic but not for persistent depression, possibly indicating depression caused by a transitional crisis to be a passing phase. It might be that this is the pattern that to some extent explains the poorer mental health, lower SOC and larger number of women treated in child/adolescent psychiatry when compared to others in the study.

In the context of risk and protective factors, the qualitative study pointed to disappointments (mediators/stressors/buffering factors/risk factors) as factors indicating non-optimal chances for adjustment to parental divorce and to contentments (moderating/protective factors) as factors indicating good chances for adjustment over time. The discussion in the study was concluded by pointing at the importance of: parents' ability to cooperate and come to agreements with each other, parents' ability to handle themselves well, parents involving the children in their new lives in an respectful way, parents allowing questions about the divorce and related emotional matters, parents' ability to offer their children stable new homes where they feel that they have a natural given place, and parents' ability to consider each child's personality and different needs, and if necessary seek professional help.

Earlier research on adverse childhood experiences such as parental divorce, or circumstances caused by divorce has postulated that these experiences, in addition to causing mental health problems have contributed to poorer physical health and psychosomatic problems (Hemminki et al., 2006; Masuda et al., 2007; Nunes-Costa et al., 2009). The results of this study showing significant differences in some of the diagnoses groups according to ICD-10 point, however, in the opposite direction. It would without fear of exaggeration be possible to draw the conclusion from the results of this study that the experience of parental divorce in childhood is not an indicator of the greater likelihood of somatic health problems in young adult age in general.

## MAIN CONCLUSIONS

- Experience of parental divorce in childhood was not found to be an indicator for poorer mental health for a majority of persons 15 years after the divorce.
- Personal resources, in this case SOC, seem to be important in retaining a good mental health and for having the capacity to deal with life incidences such as parental divorce.
- Disappointment with the mother, father or both, and disappointment with relatives and other surrounding persons indicate non-optimal chances for adjustment to parental divorce. Contentment in the belief that the members of the original family received a good or even better life after the divorce, contentment with how the divorce was handled by the parents, contentment and inner strength as a part of the child's own personality, and contentment with receiving adequate help during and after the parental divorce all indicate good chances for adjustment to parental divorce.
- Experience of parental divorce in childhood is not an indicator of a larger need for psychiatric or somatic health care twenty years after the divorce. The result indicates, however, a larger need for child psychiatric health care close to the time of the divorce event, a need most pronounced among women/girls.

## **FUTURE RESEARCH**

The results of the studies in this thesis indicate that there are no major differences in mental health between young adults with childhood experience of parental divorce and young adults without this experience, except in a group of younger women showing poorer mental health and weaker personal resources than others in the study. It would be of future interest to study if these results hold for larger samples.

It would also be of future interest to widen the perspective by incorporating also the parents' experiences and view of what was best and what was not good for their children in the process of divorce, and to see if there is a resemblance between the opinions of the parents and the opinions of the children.

Another focus for future research might be to further explore the underlying causes for the greater frequency of child and adolescent psychiatric contacts in the divorce group than in the non-divorce group and the non-existent difference between the divorce and the non-divorce group in number of persons with an adult psychiatric record.

There have been, as mentioned in the introduction, large changes in the view of children and family life in the last 100 years. In the matter of consequences of parental divorce for children it is no longer only an issue of separation between married parents, but also between cohabiting parents, and parents separating from their partner in a unisexual relationship. It might therefore be of future interest to investigate possible differences in consequences of separation for children in relation to the form of coexistence between their parents. Other less investigated areas are consequences of divorce for adopted children, foster-children, and children living in Sweden with parents from other countries of origin.

## ACKNOWLEDGEMENTS

I wish to express gratitude to the support and guidance I have received during the training to become a researcher. It is my hope that the conveying of the stories and the results concerning young adults with experience of parental divorce in childhood will lead to an increased knowledge and implications for all of us who in one way or the other come in contact with children of divorce.

My first and most sincere gratitude goes to all the participants who took the time and let me in to your homes to talk about personal things.

### **Thank you:**

Marie Wadsby, my tutor, for introducing me to the research field of divorced children. It has been developing to be working with you in this process. You have given me knowledge through “problem based learning”, and you have always, no matter how overloaded with work, taken time to discuss my questions. I have had full confidence in your knowledge and your careful reviews of my drafts.

Carina Berterö, my second tutor, for introducing me in to the field of qualitative research. Thank you for your time, your great knowledge and your careful work, but not least for your encouraging tone.

Division of Women and Child Health, Child and Adolescent Psychiatry:

Elisabeth Arvidsson for helping, being encouraging, for mutual understanding, and not least for your life-giving laughs.

Carl Göran Svedin, for enjoyable conversations and discussions and for your hums in the corridor, giving me a good feeling about research as something edifying.

Per Gustavsson for your always straight and honest conversation and for your subtle humour.

PhD-students of Child and Adolescent psychiatry:

Gunilla J-B, for your care and your ability to with a great sense of humour share own experiences and stories with us.

Malin G-L, for your engagement in everything you do, and for your great concern in everybody.

Nicholas A, Eva-Maria A, Åsa K, Christina B, Linda D, Maria Z and Sara A, for sharing the process to become a researcher and for nice conversations.

Former PhD-students, now disputed:

Charlotta Lindell, for being a good friend, for mutual understanding and smiles of recognition calls. Thank you for your encouraging calls and all the laughter.

Madeliene Coccozza, for being a good friend and a fresh breeze. Thank you for all the talks, all the laughter, for mutual understanding and your encouraging calls.

Per E Gustavsson, for being you; natural, helpful and completely without ulterior motives.

Doris N, IngBeth L, Sam N and Marie P-B, for sharing the process to become a researcher and thank you for various conversations and discussions.

Other important persons in the process to become a researcher:

Olle Eriksson my statistical adviser for your quick response, clear and distinct instructions and for your helpfulness.

Larry Lundgren, for your personal tone and the careful review of my English.

Gerd Mucchiano and Bengt-Olof Bengtsson heads of the Psychiatric Clinics for the commission of trust in the collection of the data for the final study.

Annette Johansson, administrator at the adult psychiatric clinic, for helping me to locate the material for the final study, and for your obliging, pleasant and confidence-inspiring way of being.

Annika Wallinder, for suggesting research as a possibility at a time in my life when I needed a pause from endless attempts to solve acute conflicts.

Other very important persons who guided me and challenged me to increase my knowledge about the journey of life:

The children and the families in my former work. Marit Torvaldsson-Berg, for your knowledge and courage that goes beyond books.

Family:

Mum and dad, for your care and love for Maja and her mother and father expressed among other things in trips from Tranås to Linköping to Tranås when ever needed, for teaching me to be honest and always try to do the best I can, for teaching me to act in a responsible way and care about others, and last but not least for your ambition to keep your minds open for new things in life.

My sister, Cissi and her family for your care about Maja.

Mats, for all the things you thought me in the direct situations that arose when we were working together, for our endless ongoing conversations with and without words, for being a model with your indefatigable faith in people, for giving hope in hopeless situations, for making boring things funny, for giving me developing resistance and a strong feeling of being important and loved. There are many things I could write, but as you would say, tell it instead.

Maja who doesn't yet know how to read more than some words, and most certainly not in English. Thank you for being you. My hope is that you will never try to be somebody else, because you already are the best.

This work has been financially supported by the Swedish Council for Working Life and Social Research and 'Stiftelsen Clas Groschinskys Minnesfond'.

Linköping, 19<sup>th</sup> of March 2010

*Teresia Ängarne-Lindberg*

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