

Psychological adjustment among bereaved parents:
Individual and interpersonal predictors

Leoniek Wijngaards-de Meij, 2007

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Psychological adjustment among bereaved parents:
Individual and interpersonal predictors

Verliesverwerking bij ouders die een kind hebben verloren:
Individuele en interpersoonlijke voorspellers

(met een samenvatting in het Nederlands)

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Voor mijn ouders

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Chapter 1

Introduction

The loss of a person to whom one is close and whom one loves is an inescapable part of human existence. Among reactions to bereavement are intense feelings of grief, such as intense yearning for the deceased and feelings of despair. There are also broader consequences for the mental and physical health of the bereaved person, such as elevated risks for depression and anxiety, somatic complaints and physical illnesses (Stroebe, Hansson, Stroebe, & Schut, 2001). Research supports the popular belief that the loss of a child is the most intense and harrowing type of bereavement that one can experience (Sanders, 1989; Nolen-Hoeksema & Larson, 1999). The loss of a child in Western countries is characterized by the fact that it goes against the expectation parents have when their child is born, namely that the child will outlive them (Rubin & Malkinson, 2001). The process of grief of the parents may include a wide range of feelings such as despair, depression, anxiety, guilt, anger and intense yearning for the child. Research has confirmed that the loss of a child has immense psychological and physical health consequences for the parents. These effects are reflected in increased rates of admission to psychiatric wards, as well as an increased risk of mortality (Li, Precht, Mortensen, & Olsen, 2003; Li, Laursen, Precht, & Olsen, 2005). Although family structures can differ, in the traditional family setting parental bereavement can be complicated by the fact that parents as couples have to face their bereavement together: The bereaved parent will not only have to grieve the loss in his or her own way, but will also be confronted with the grieving of his or her partner. On the other hand, it can also be a comfort for the parents to feel that they are not grieving alone, and they may feel supported by their partner or be helped by the way their partner handles the loss.

Although all parents may be expected to suffer greatly from the loss of their child, there are likely to be considerable differences in reactions among them, not only within couples of parents, but also between bereaved parents in general, particularly with respect to grieving symptoms and processes (for reviews, see Dijkstra & Stroebe, 1998; Dyregrov, Nordanger, & Dyregrov, 2003). However, only limited prior research has been conducted to study reactions to bereavement among parents who have lost their child and even fewer studies have examined couples of bereaved parents. Furthermore, the studies that have been conducted frequently suffer from serious methodological limitations. These investigations have been typified by small samples, which included only limited causes of death. Most importantly, these investigations have typically studied only one parent (instead of couples), or if couples were included, they were treated as independent individuals, disregarding the fact that the responses of parents who have lost a child are neither psychologically nor statistically independent.

Outline of this research

For these reasons, members of Center of Bereavement Research at the University of Utrecht decided to start a major research project on the impact of loss of a child on parents. Between 1996 and 1998, Iris Dijkstra conducted a two-year longitudinal study of more than 200 couples who had lost their child. In total 463 Dutch couples who had lost a child were contacted via obituary notices that were obtained through the archives of local and national newspapers. Bereaved parents who were grandparents (i.e., those parents whose deceased child was a parent him/herself) were not included in this investigation, given that they are likely to experience additional difficulties. Single parents were also excluded, because the study was designed to examine variables shared by the parents as predictors of grief as well as individual variables. In total, 219 parent couples (47%) agreed to participate. Informed consent procedures were utilized. The parents who participated ranged in age from 26 to 68 years ($M = 42.2$, $SD = 9.1$) and their deceased child's age ranged from stillborn to 29 years, with a mean age of 10.2 years ($SD = 9.8$). A total of 68.7% of the deceased children were boys. The causes of death ranged from neonatal death (including stillborn) (16.3%), to illness (47.7%), to accident, SIDS, suicide or homicide (36.1%).

The study included three points of measurement at 6, 13 and 20 months after the death of the child. The attrition rate was 17.8% over this 14 month period. At the first point of measurement, 6 months after the loss, an interview with the couple was conducted to gather information about biographical variables, about the deceased child him- or herself, and about the circumstances surrounding the death. The

interview was conducted in the couples' homes, by a trained interviewer. At all three moments in time, parents were asked to fill in a set of questionnaires separately. They were asked not to discuss or compare their answers throughout the study. Among the questionnaires, the Symptom Checklist (SCL-90, Derogatis, 1977) was included to assess a variety of psychological symptoms such as depression and anxiety, and the Inventory of Complicated Grief (Prigerson, Maciejewski, Reynolds, Bierhals, Newsom, et al., 1995a) was included to measure grief symptomatology.

In 2000 Iris Dijkstra was awarded a PhD for a dissertation based on this study. However, with such a rich dataset, her dissertation could touch only on a limited set of issues and a number of the main questions for which this project had been designed remained unanswered. Furthermore, Iris Dijkstra analyzed the data with traditional regression methodology, which by present day standards, is no longer optimally suited for this data set. Therefore, in 2002 I was asked to propose a plan for further analyses of this rich set of data. Since I have a degree in clinical psychology with an appointment at the Department of Statistics, it was expected that I would combine psychological knowledge with the expertise in statistics that was essential to run the new analyses on this complex set of data.

As mentioned earlier, one of the shortcomings of previous research is the way the dependency of the couples has been handled in analyses (so-called "nested data"). The loss of a child is unique, in the sense that some aspects are automatically shared by the parents as a couple (e.g., child's age), while others are individual (e.g., parent's age). Parents within a couple lose the same child and have therefore more in common than two independent parents who lose different children. As a result, the psychological adjustment of the parents within a couple might be influenced by the fact that they share numerous factors and their adjustment is therefore not independent. This leads to a statistical problem: the assumption of independence of observations is violated, which ultimately will lead to spurious 'significant' results (Hox, 2002). For that reason, in this study, multilevel regression analyses were used (Rasbash et al., 2000). This method is especially designed to cope with dependent (nested) data. In a (standard) multiple regression analysis one tests whether a variable (e.g., grief) is predicted by a number of other variables, which are called the predictors (e.g., gender and age of the parent). In the nested structure in our study, some of the predictors were shared by the parents within the couple, while others were individual characteristics of the parent. Because each parent was measured at three moments in time, these three scores were also dependent.

Therefore, in the present data set there is a nested structure captured by a three-level hierarchy (see Figure 1). There were three measurement moments in time, these were nested in one person, the father or mother. The measurements of the father and mother were dependent and were thereby nested in a couple. Therefore time since death was the lowest level (1st level), nested in the individual, the parent (2nd level)

and the parents were nested in a couple (3rd level). Each predictor (independent variable) varied only at one specific level. For example, age of the parent (individual factor) differed at the individual level (2nd level), while age of the child did not vary within the couple, so was shared by parents, but did vary between the couples at the couple level (3rd level).

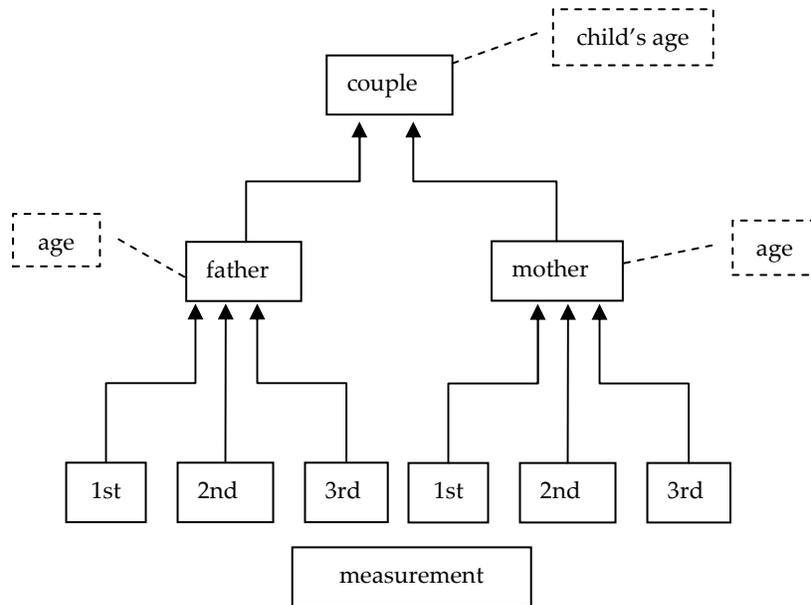


Figure 1 Nested structure of the data

Because our focus of interest included interpersonal processes, a special model within multilevel regression analysis was used in Chapters 4 and 6, namely the Actor Partner Interdependence Model (APIM; Kenny, Mannetti, Pierro, Livi, & Kashy, 2002; Campbell, & Kashy, 2002). Using this model enabled exploration of both individual as well as partner variables as predictors of grief and depression, as well as possible interactions between these variables.

In this thesis five articles are presented that focus on the identification of factors that differentiate between psychological adjustment processes of bereaved parents.¹ Three perspectives are informative about different factors that might be related to the grieving process of these parents: objective characteristics (of the situation and people involved), intra-psychological factors, and interpersonal variables. Consequently, in Chapter 2, to identify risk factors (i.e. factors that differentiate

between low and high levels of grief), the psychological adjustment process of the bereaved parents was studied in relationship to “objective” characteristics: of the parent, of the child and of the death of the child (Chapter 2). The relationship between circumstances surrounding the loss and in the early days of the bereavement to the psychological adjustment process of the parents were studied in Chapter 3. In the following two chapters, Chapters 4 and 5, we turned to adult attachment theory, which is an important framework for understanding interpersonal phenomena such as bereavement. More specifically, through its focus on the nature of a person’s relationships and adjustment in situations of separation, attachment theory provides a useful way to characterize individual differences in reactions to loss. Then, because interpersonal aspects are likely to be essential factors in the grieving process of parents, in the following chapter an interpersonal approach was adopted. Not only were the parent’s own coping strategies examined in relationship to the well-being of the parent, but also whether those of the partners were too (Chapter 6). By studying these parents from different perspectives we have striven to create a multidimensional picture of the bereavement process of parents.

Another important focus of our study was to examine the core psychological symptoms that characterize the psychological adjustment process after a bereavement. Although a considerable amount of prior research has studied the grieving process by using measures of depression as indication of grief symptomatology, recently researchers have argued that a distinction needs to be made between (complicated) grief symptoms and depression (Prigerson, Frank, Kasl, Reynolds, Anderson, 1995b; Boelen, & van den Bout, 2005). Therefore, we decided to investigate the psychological adjustment process of bereaved parents in terms of both grief as well as depression symptoms. So the question whether the generic measure of depression is an adequate one for use in bereavement research was addressed, or whether grief specific measures are needed to capture the core elements of the grieving process. To investigate this, we included measures of both grief and depression, enabling us to elucidate possible similarities as well as differences with respect to the predictors of grief and depression. In the following sections I will give a brief preview of the five articles (Chapter 2 to 6) which form this dissertation.

Outline of the chapters

In providing help for the bereaved, programs that identify highly vulnerable individuals (secondary preventive interventions) have been shown to be more effective than those not targeting high risk persons (Schut, Stroebe, van den Bout, & Terheggen, 2001). Although prior research has tried to identify risk factors for bereaved parents, none has been able to study multiple predictive (risk) factors simultaneously, nor were the proper statistic methods used to take the nature of the dependent data in account. Therefore in the *second chapter* the central question is: Which risk factors can be identified for bereaved parents? In an attempt to answer this question, we examined the relative impact of characteristics of the parents, the child, and the death, in predicting the adjustment among bereaved parents following the death of their child. Risk factors were derived from the relevant literature on this topic in the bereavement field (e.g., Stroebe & Schut, 2001). As described before, both grief and depression symptoms were included in the analyses to study possible differences in the factors relating to these syndromes. Theoretical implications of the results are discussed.

The circumstance of the death of the child, and the events following the death will vary between bereaved families. For example, not only the cause and the location of the death of their child may vary, but also whether the parents decide to present the body of their child for viewing at home, or whether they decide to have the body buried or cremated. To gain more insight into the consequences of the circumstances surrounding the death and during the days directly following the loss event, in the *third chapter* we studied these circumstances in relation to the level of grief and depression symptoms in the aftermath of the loss. Among the circumstances surrounding the loss, some cannot be changed by the parents, for example, the cause of death and its unexpectedness, while others factors can - or sometimes even have to - be determined by the parents, for example, whether the body will be buried or cremated. The factors were therefore divided in two categories: those that were determined by the particular death circumstances, versus those over which parents themselves could have influence (changeable). In particular, information on the relationship between the so-called changeable factors (taking care of the body of the child themselves), presenting the body for viewing at home, burial or cremation and saying goodbye) and the adjustment process of the parents is likely to be valuable for clinical practice.

Attachment theory provides an important framework for understanding individual differences in grief following the death of a close person (Archer, 1999; Bowlby, 1980). In the *fourth chapter* we examined the impact of adult attachment on psychological adjustment among bereaved parents. According to attachment theory, different styles of attachment are formed through the early parent-child relationship,

which guides responses to emotionally distressing situations such as bereavement (e.g., Bowlby, 1969/1982, 1973, 1980; Parkes, 2001; Shaver & Tancredy, 2001). According to adult attachment theory, adult attachment bonds function in similar ways to parent-child attachment bonds (Fraley, 2004). Recently, attachment theorists have made strong arguments for conceptualising attachment strategies in terms of two dimensions, avoidance and anxiety (Brennan, Clark, & Shaver, 1998). The dimension attachment avoidance, reflecting the extent to which a person distrusts a partners' goodwill and strives to sustain autonomy and emotional distance from partners, is typically expected to be unrelated to the grieving process of the bereaved. In contrast, the second dimension, called attachment anxiety, which indicates the degree to which a person worries that a partner will not be available in times of need (Mikulincer, Dolev, & Shaver, 2004) is typically expected to be positively related to the adjustment of the bereaved – parents who were more anxious would have more symptomatology.

Noticeably, this research project had to do with two types of attachment bonds. On the one hand there is the parent-to-child bond, and on the other hand the romantic attachment bond between the parents. In the case of child loss, both relationships are altered: Not only has the parent-child attachment bond been broken through the child's death, but it seems likely that for some couples, the bond between the parents themselves may have been disrupted or at least put under enormous pressure. In other cases, parents may have drawn closer together in facing their adversity.

The purpose of the current investigation was to clarify individual differences in parents' adjustment to the death of their child, using predictions from attachment theory to try to identify patterns. Furthermore, we examined not only whether the adjustment process of the parent was related to the parents' own attachment strategy, but also whether the psychological adjustment was related to the partners' attachment strategy. In addition, the role of marital satisfaction, which has been shown to be related to both adult attachment, as well as to psychological adjustment (e.g., Lang, Gottlieb, & Amsel, 1996), was investigated as a mediator between insecure attachment, on the one hand, and grief and depression, on the other hand. In the *fifth chapter* the interest was extended to examination of the relationship between two concepts from two different theories, namely, attachment versus personality theory. Focus was on the security of attachment from the former theory, versus the trait neuroticism, from the latter. Security of attachment is a fundamental construct of attachment theory. Likewise, neuroticism is a basic personality trait, being characterized as a proneness to experience unpleasant and disturbing emotions (McCrae & Costa, 1999). Although both have been shown to be related to poorer adjustment during bereavement, to our knowledge no prior research so far has compared the relative contribution of these constructs to grief and depression.

Questions about the two theoretical approaches arise, then: Are we measuring basically the same construct across the two theoretical fields - or does each of these constructs have unique explanatory power? Thus, the general aim of this study was to try to establish the relative merits of adopting a personality compared to the attachment theory perspective for the prediction of bereavement outcome.

To study parents grieving the loss of their child more comprehensively, we also wanted to investigate the process from an interpersonal perspective. Such an approach postulates that spousal couples are not only affected by their own reactions but also by the coping of the partner. The coping literature in general, and the bereavement literature specifically, has largely focused on individual aspects of coping without considering the interpersonal context in which grieving occurs. Furthermore, in studies of bereavement, no research has used an interpersonal approach to examine the coping style of both bereaved parents in combination, in relationship to the adjustment process after the loss of their child. Therefore, in *chapter six* the relationship between parents' own and their partners' ways of coping and psychological adjustment following the death of their child was examined. Bereavement-specific coping strategies were investigated. These were based on the constructs loss- and restoration orientation, which were derived from the Dual Process Model (DPM; Stroebe, & Schut, 1999). Although it was not the purpose of this study to investigate the parameters of the DPM comprehensively, this model was nevertheless of importance to the study. The model postulates two coping strategies, loss-orientation and restoration-orientation, attention to both of which is needed for favorable psychological adjustment after bereavement. Loss-orientation refers to the concentration on, and dealing with, some aspect of the loss experience itself, while restoration orientation refers to dealing with secondary sources of stress (i.e., changes which have come about as a result of the bereavement). Restoration-oriented coping was defined more specifically for this study of child loss as an active attempt to look toward the future and to rebuild one's life. Because gender differences have been found in interpersonal research on stressors in general (cf. Badr, 2004), we examined whether patterns of individual and / or interpersonal effects are similar or different for men and women. Thus we examined the basic question: Are intrapersonal as well as interpersonal processes in coping with the loss of their child relevant for the adjustment process of parents?

Notes

¹ Since these are independent journal submissions, there will be redundancy in theoretical introductions and descriptions of the study.

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Chapter 2

Couples at Risk Following the Death of Their Child:

Predictors of Grief versus Depression

Abstract

This longitudinal study examined the relative impact of major variables for predicting adjustment (in terms of both grief and depression) among bereaved parents following the death of their child. Couples (N=219) participated 6, 13 and 20 months post-loss. Use of multilevel regression analyses enabled assessment of the impact of several predictors and facilitated analysis of factors that were either shared by parents or that were individual ones. Grief was predicted mainly by shared parent factors: child's age, cause and unexpectedness of death, and number of remaining children. By contrast, depression was predicted by individual parent factors: gender, religious affiliation, and professional help-seeking. Theoretical implications of these findings are discussed.

Wijngaards-de Meij, L., Stroebe, M., Schut, H., Stroebe, W., van den Bout, J., van der Heijden, P.G.M., & Dijkstra, I. (2005). *Journal of Consulting and Clinical Psychology*, 73, 617 - 623.

Chapter 3

The impact of circumstances surrounding the death of a child on parents' grief

Abstract

A longitudinal study was conducted among bereaved parents to examine the relationship between the circumstances surrounding the death of their child and psychological adjustment. 219 couples participated at 6, 13 and 20 months post-loss. Examination was made of two categories of factors: those that were determined by the particular death circumstances (e.g. whether the parent was present at the death) versus those over which parents themselves could have influence (e.g. choice of cremation or burial). Results indicated that some but not all factors were related to adjustment over time. Importantly, the feeling of having said goodbye to the child and presenting the body for viewing at home were associated with lower levels of the parents' grief. Implications for supporting bereaved parents are discussed.

Wijngaards-de Meij, L., Stroebe, M., Schut, H., Stroebe, W., van den Bout, J., van der Heijden, P.G.M., & Dijkstra, I. (Conditionally accepted in *Death Studies*)

The thought that one might lose one's child through death is a terrifying one for parents. If the unthinkable actually happens and a child dies, parents are confronted with a world that has fallen apart. Their life's hopes and expectations are thrown into complete disarray (Rubin & Malkinson, 2001). Indeed, prior research has shown that bereaved parents are a highly vulnerable group. Bereaved parents have a higher relative risk than non-bereaved controls of being hospitalised for affective disorders in particular (Li, Laursen, Precht, Olsen, & Mortensen, 2005) and even have higher mortality rates than parents who have not lost a child (Li, Precht, Mortensen, & Olsen, 2003). Nevertheless, there are likely to be individual differences among bereaved parents in the course of grief and in ways of coming to terms with a loss. In general, it has been shown that certain individual and interpersonal characteristics influence adjustment to loss (for a review see Stroebe, Folkman, Hansson, & Schut, 2006). These characteristics can be seen as "risk factors", to assist in identification of bereaved persons vulnerable to poor adjustment. However, surprisingly little empirical research has been conducted specifically on the impact of the circumstances surrounding a death (i.e., those associated with the actual time of loss and during the days following the death) on the grief process. And yet it is likely that these events are critically important. For example, it is generally believed that being present at the sickbed when a child dies has a beneficial effect for the bereaved.

In investigating the impact of circumstances surrounding a death, it seems useful to distinguish two types of factors: First, there are those factors that are usually dictated by the circumstances (e.g. cause and location of the death) – which we label "unchangeable". Second, there are those aspects to do with the death that require a decision to be made by the bereaved, or an action to be taken (e.g., presenting the body for viewing) – which we will label "changeable" events.

With respect to our first category, several potentially important factors can be identified that are unchangeable, that are "givens", determined by the situation. These include cause and unexpectedness of the death; location of the death; being present at the death; way of finding out about the death. Again these aspects seem particularly salient in the case of the loss of a child, but to our knowledge empirical evidence is either scarce or completely absent. Differences in outcome related to causes of death of a child have been examined in detail (e.g., Dyregrov, Nordanger, & Dyregrov, 2003; Murphy, Johnson, Wu, Fan, & Lohan, 2003). However, these studies concentrated on unexpected and/ or violent causes of death and did not compare the impact of these with other causes of death. In our earlier article, in the context of examining a broader range of risk factors such as characteristics of the parent (e.g. age, gender, education) and characteristics of the child, we included cause and unexpectedness of the death of the child (Wijngaards-de Meij et al, 2005).

Cause of death and the unexpectedness both contributed to the prediction of grief symptoms of the parents. However, apart from the effect of cause of death, we did not look at more specific circumstances surrounding the death in this earlier analysis. Again very few studies have been conducted on the impact of location of the death or being present at the death. Christakis and Allison (2006) found that spouses of persons who were hospitalised had higher mortality rates than those whose partners were not hospitalised for the same illness. One small study of parents, conducted in Greece, examined the experiences of mothers who had cared for their child at home versus in the hospital, but did not relate these to the adjustment of the mothers after death (Papadatou, Yfantopoulos, & Kosmidis, 1996). Finally we have only found qualitative accounts relating to aspects to do with learning about the death, but these reports have focused on guidelines on how to tell the news to bereaved parents (Cook, White, & Ross-Russel, 2002).¹

As noted above, there is little scientific evidence causally linking circumstances surrounding the death of a child with outcome variables among their parents (see Rubin & Malkinson, 2001, for a review of risk and mitigating factors in parental response to loss of a child). With respect to the category of changeable events: Regarding the funeral, there are several aspects that have received attention in the bereavement literature. With respect to participation in the planning of the funeral, in Gamino, Easterling, Stirman and Sewell's (2000) study there was no (significant) relationship between participating in the planning and grief symptoms. This is in line with results of studies by Doka (1984) and Bolton and Camp (1987), who found that participation in funeral rituals was not related to adjustment. There is a large body of research on cultural differences on rituals and funerals (e.g., Hockey, Katz, & Small, 2001), but to our knowledge there has been no published² research connecting the form of the funeral (burial or cremation) to the psychological adjustment process of bereaved persons. We know of no scientific studies on the impact of caring for the body or presenting the body for viewing at home.

In this context, another important feature is whether parents have, according to their own personal evaluation, said goodbye to their child. There are clearly several ways to say goodbye, either before, at the moment of death, or in a symbolic way after the loss. There have been surprisingly few studies on the impact of saying goodbye, although in two studies bereaved persons (but not specifically parents) were found to have better adaptation if they had said goodbye to their loved ones (Gamino, Sewell, & Easterling, 2000; Schut, de Keijser, van den Bout, & Dijkhuis, 1991).

With respect to these changeable factors: parents have to make several decisions. One important decision is about the funeral: do they want their child to be buried or cremated? And: Do they choose to take care of the body themselves? Do they want to present the body for viewing at home? And also, although on a

somewhat different level: Did they find a way to say goodbye to their child? "Saying goodbye" may have been carried out in words to the dying child or it may have been done symbolically afterwards, for example, planting a tree or reciting a poem. In raising these issues, it is important to ask whether these aspects actually make a difference to the adjustment of the parents.

It is important to note that some of the choices that are mentioned above are culturally bound. Our study was conducted in the Netherlands. In this country, the possibility to present the body of the deceased at home is a common option, as is presenting the body for viewing in the funeral home or at the church. Although this procedure is quite common in Europe, in other countries such options might differ substantially.

The purpose of this investigation was to clarify whether differences in parents' adjustment to the death of their child were related to the changeable and unchangeable circumstances described above. Both depression and grief were included as dependent measures, given that previous research has shown these to be distinct syndromes in response to bereavement (see Prigerson & Jacobs, 2001). In addition to adding to scientific knowledge on individual differences in adjustment to bereavement, our goal was clinically-oriented: to gain understanding about how the direct aftermath of the loss of a child may be related to the psychological symptoms of the parents. Clearly, without being prescriptive, the changeable factors are particularly important in practice (e.g., for funeral directors), since establishing their relationship to adjustment might help to provide guidance for bereaved parents having to make decisions at a time when they are grieving intensely.

Method

Our study was longitudinal, consisting of three points of measurement at 6, 13 and 20 months after the death of the child. The attrition rate was 17.8% over this 14 month period. At 6 months after the loss information on the biographical data about the parents, the child and circumstances surrounding the loss were gathered during an interview with the couple. At all three moments in time, parents were asked to fill in a set of questionnaires separately.

In total 463 Dutch couples who had lost a child were contacted via obituary notices in local and national newspapers. Bereaved parents who were grandparents (i.e., those parents whose deceased child was a parent him/herself) were not included in this investigation, given that they are likely to experience additional difficulties. Single parents were also excluded, because the current article is part of a study that was designed to investigate individual variables as well as variables shared by the parents as predictors of grief (see also Wijngaards-de Meij et al, 2005). In total, 219

parent couples (47%) agreed to participate. Informed consent procedures were utilized. The parents who participated ranged in age from 26 to 68 years ($M = 42.2$, $SD = 9.1$). 31% of the parents indicated that they were not religious, 38% was Roman-Catholic, 26% was Protestant and 5% belonged to another religion. The age of their deceased child's age ranged from stillborn to 29 years with a mean age of 10.2 years ($SD = 9.8$). A total of 68.7% of the deceased children were boys. The causes of death varied from neonatal death (including stillborn) (16.3%), through illness (47.7%), to accident, SIDS, suicide or homicide (36.1%).

Independent variables

Unchangeable variables: cause of death [three categories (see above) made into two dummy variables: neonatal death is the reference group and the first variable is 'illness' and, the second variable 'accidental' death], (un)expectedness (5-point-scale) of the death, location of the death (home, hospital, else), present at the moment of death (yes/ no), discovered the death him or herself (yes/ no).

Changeable variables: Presenting the body of the child at home (yes/ no), funeral (cremation or burial), taking care themselves (i.e. personally) of the body after death (yes/ no), and 'saying farewell to their child' (yes/ no).

Control variables: To exclude possible gender effects and effects of age of the child (see Wijngaards et al., 2005), all analyses were controlled for these variables.

Dependent variables

Depression was measured using the subscale of the Symptom Checklist-90 (SCL-90, Derogatis, 1977; Dutch translation by Arrindell & Ettema, 1986). The subscale depressive symptomatology consists of 16 items. Answers are given on a five-point scale, ranging from 'not at all'(1) to 'very much'(5). In our study Cronbach's alpha ranged from .92 to .94.

Grief reactions were measured using the Inventory of Complicated Grief (ICG, Prigerson, Maciejewski, Reynolds, Bierhals, et al., 1995; Dutch version by Dijkstra, Schut, Stroebe, Stroebe, & van den Bout, 2000). The ICG consists of 19 items covering psychological aspects of grief, e.g., 'I yearn for our deceased child' and 'I feel that it is unfair that I should live when our child died'. The answers are given on a five-point scale ranging from 'never'(1) through 'sometimes'(3) to 'always'(5). In our study the Cronbach's alpha ranged from .90 to .92.

The dependent variables were transformed to a scale 0-100 to facilitate comparison between the predictors and between the predictive value for depression and grief.

Analysis

Multilevel regression analyses are appropriate for having several predictors in a dependent structure (Hox, 2002). A unique feature of multilevel analysis is that it works with a specific statistical model designed for nested data. In our data there is a nested structure captured by a three-level hierarchy. The three measurement moments in time are nested in one person, the father or mother. The measurements of the father and mother are dependent and are thereby nested in a couple. Therefore time since death is the lowest level (1st level), nested in the individual (2nd level). The parents (2nd level) are nested in a couple (3rd level). Each independent variable varies only at one specific level. Time since the loss of the child varies only at the lowest level, the time level (1st level). The individual factors of the two parents differ at the individual level (2nd level). The remaining factors are the same for the parents in a couple, but these factors do vary between the couples at the couple level (3rd level).

For each of the two dependent variables (grief and depression) a multilevel regression analysis was performed with MLwiN (Rasbash et al., 2000). In the first Model the factors time, gender and age of the child were included (curvilinear for grief). In Model 2 the unchangeable variables were introduced: cause, (un)expectedness and location of the death, being present and being aware of the moment of death. To test whether the circumstances around the death that require a decision predicted the level of grief of the parents, the variables 'presenting the body of the child at home', kind of funeral, cared for the body after death, and 'saying farewell to their child' were introduced in Model 3.

Results

Differences between causes of death (in circumstances)

Unchangeable variables

Of the children who died before or at birth, most died in the hospital (see Table 1). The majority of the parents whose child died in an accidental death were not present at the death. In contrast, of the parents of whose child died because of an illness or disorder, the majority was present at the moment of death. Although these parents were present, only one out of three discovered the death in the group of neonatal deaths, which equals the percentage of parents who did so within the accidental group. Among the parents whose child died of an illness or disorder, half was aware of the moment of dying him or herself.

Table 1 Unchangeable variables differentiated by cause of death

| Cause | Location of death | | | Parent present | | Death discovered | |
|------------|-------------------|----------|-------|----------------|-------|------------------|-------|
| | home | hospital | other | yes | no | self | other |
| neonatal | 12.1% | 87.9% | - | 79.1% | 20.9% | 35.4% | 64.6% |
| illness | 35.1% | 59.6% | 5.3% | 69.2% | 30.8% | 53.2% | 46.8% |
| accidental | 10.3% | 35.2% | 54.4% | 18.2% | 81.8% | 36.4% | 63.6% |

Table 2 Changeable variables differentiated by cause of death

| Cause | Presented body | | Funeral | | Cared for body | | Farewell | |
|------------|----------------|-------|---------|-----------|----------------|-------|----------|-------|
| | yes | no | burial | cremation | yes | no | yes | no |
| neonatal | 32.5% | 67.5% | 72.5% | 27.5% | 33.8% | 66.3% | 92.4% | 7.6% |
| illness | 42.1% | 57.9% | 77.9% | 22.1% | 35.8% | 64.2% | 88.8% | 11.2% |
| accidental | 18.7% | 81.3% | 72.0% | 28.0% | 3.9% | 96.1% | 71.7% | 28.3% |

Changeable variables

Parents whose child had died of an illness were twice as likely to present the body for viewing at home as parents whose child had died in an accident or from other violent causes (Table 2). Most parents did not or could not take care of the body after the death. In cases of accidental deaths less than 4% of parent did so, and among the other parents one third took care of the body of their child themselves. In all groups the majority of the children were buried, only one out of four couples chose a cremation. When asked whether they had said farewell to their child, almost all parents in the neonatal death group indicated that they had. After an illness or disorder of the child, the majority of parents also indicated that they had said farewell. After an accidental death more than half of the parents said farewell, but not as many as in the other groups of parents.

Grief

The first Model consisted of the predictors time, gender of the parent and age of the child (curvilinear, see Wijngaards-de Meij et al., 2005). Women had higher grief scores than men. Although the grief scores were high for all the parents over the period of the study, through time the grief decreased slightly for both men and women (Table 3 and 4). There was a curvilinear relationship between grief and the age of the child (up to the age of 17 the grief increases, after the age of 17 the grief decreases).

In Model 2 the unchangeable variables were introduced. The results showed that grief was predicted by cause of death and the (un)expectedness of the death and being present at the moment of death (Table 4a and 4b). Parents who lost their child

through an accident or a violent death had the highest grief scores, followed by the parents who lost their child after an illness or disorder. The parents who lost their child by stillbirth or neonatal death had somewhat lower scores (but still high) than those of the other two groups of bereaved parents. Furthermore, the more the parents expected the loss, the less grief they experienced. Parents who were present

Table 3 Means / Standard Deviations

| | Grief t1 | | Grief t2 | | Grief t3 | |
|----------|---------------|-------|---------------|-------|---------------|-------|
| | m | s.d | m | s.d | m | s.d |
| Gender | 40.86 | 18.90 | 39.82 | 17.90 | 37.80 | 45.62 |
| men | | | | | | |
| women | 49.34 | 19.46 | 45.90 | 18.62 | 45.63 | 16.93 |
| Cause | | | | | | |
| neonatal | 36.21 | 16.00 | 33.04 | 16.87 | 31.15 | 16.08 |
| Illness | 43.08 | 19.50 | 40.88 | 17.85 | 40.30 | 18.00 |
| accident | 54.64 | 18.71 | 52.75 | 16.54 | 50.92 | 15.99 |
| | Depression t1 | | Depression t2 | | Depression t3 | |
| Gender | 17.66 | 15.48 | 16.37 | 15.76 | 15.60 | 15.60 |
| men | | | | | | |
| women | 29.97 | 21.21 | 28.20 | 20.12 | 25.87 | 18.82 |
| Cause | | | | | | |
| neonatal | 19.62 | 16.58 | 16.37 | 15.30 | 14.42 | 12.96 |
| illness | 21.69 | 18.56 | 21.23 | 19.26 | 19.67 | 18.41 |
| accident | 30.72 | 22.71 | 29.18 | 20.18 | 26.72 | 19.48 |

at the moment of the death of their child experienced less grief than those who were not. In Model 3 the changeable variables were introduced. Of the changeable variables, two of the four variables did predict the grief of the parent. Whether the body of the child was presented at home for viewing affected the level of grief of the parents. Parents who were able to present the body of their child at home experienced somewhat less grief than those who were unable to do so. Saying farewell also influenced the grief of a parent. When a parent had (to his own idea) said farewell to the child, he or she had less grief than a parent who did not or could

Table 4a. multilevel regression analyses for grief

| | Grief | | | | | |
|---|---------|-------|---------|-------|---------|-------|
| | Model 1 | | Model 2 | | Model 3 | |
| | B | s.e. | B | s.e. | B | s.e. |
| 3rd level | | | | | | |
| Age child (in yrs) | 0.814* | 0.102 | 0.718* | 0.160 | 0.677* | 0.155 |
| Age child (square) | -0.037* | 0.015 | -0.024 | 0.017 | -0.024 | 0.016 |
| Cause of death (0= neonatal) ^a | | | | | | |
| Illness | | | 4.205* | 3.523 | 3.960* | 3.206 |
| Violent/ accident | | | 10.105* | 4.467 | 9.803* | 4.283 |
| Expectedness | | | -2.414* | 0.879 | -2.164* | 0.863 |
| Location of death (0 = home) ^a | | | | | | |
| Hospital | | | -1.392 | 2.858 | -3.200 | 2.869 |
| Somewhere else | | | -4.670 | 3.846 | -5.890 | 3.908 |
| Laid in state at home (0=no) | | | | | -4.925* | 2.391 |
| Cremation/ burial | | | | | -1.135 | 2.319 |
| 2nd level | | | | | | |
| Gender (0=male) | 8.069* | 1.062 | 8.424* | 1.179 | 7.692* | 1.210 |
| Present (0=no) | | | -5.551* | 2.570 | -4.872 | 2.562 |
| Discovered (0=self) | | | 4.216 | 2.365 | 2.708 | 2.376 |
| Cared for the body (0=no) | | | | | -3.011 | 2.230 |
| Farewell (0=no) | | | | | -7.454* | 2.554 |
| 1st level | | | | | | |
| Time | -2.162* | 0.280 | -2.139* | 0.315 | -2.104* | 0.320 |

^a the variables 'cause of death' and 'location' were both tested with a χ^2 -test * p<.05

Table 4b. multilevel regression analyses for depression

| | Depression | | | | | |
|---|------------|-------|---------|-------|---------|-------|
| | Model 1 | | Model 2 | | Model 3 | |
| | B | s.e. | B | s.e. | B | s.e. |
| 3rd level | | | | | | |
| Age child (in yrs) | 0.486* | 0.097 | 0.289* | 0.144 | 0.283* | 0.143 |
| Age child (square) | | | | | | |
| Cause of death (0= neonatal) ^a | | | | | | |
| Illness | | | 1.942 | 3.384 | 0.823 | 3.335 |
| Violent/ accident | | | 8.613 | 4.166 | 8.482 | 4.185 |
| Expectedness | | | -0.131 | 0.893 | -0.032 | 0.888 |
| Location of death (0 = home) ^a | | | | | | |
| Hospital | | | -0.805 | 2.906 | -2.421 | 2.971 |
| Somewhere else | | | -4.976 | 3.864 | -5.993 | 4.002 |
| Laid in state at home (0=no) | | | | | -3.276 | 2.463 |
| Cremation/ burial | | | | | 0.496 | 2.372 |
| 2nd level | | | | | | |
| Gender (0=male) | 12.138* | 1.285 | 12.848* | 1.480 | 12.399* | 1.532 |
| Present (0=no) | | | -1.826 | 2.747 | -1.754 | 2.787 |
| Discovered (0=self) | | | 4.819 | 2.502 | 3.628 | 2.549 |
| Cared for the body (0=no) | | | | | -1.952 | 2.505 |
| Farewell (0=no) | | | | | -4.078 | 2.773 |
| 1st level | | | | | | |
| Time | -1.562* | 0.309 | -1.587* | 0.346 | -1.529* | 0.354 |

^a the variables 'cause of death' and 'location' were both tested with a χ^2 -test * p<.05

not do so. In contrast, whether the child was cremated or buried or whether parents were able to take care of the body of their child did not affect the extent of their grief. In Model 3 the variable 'being present at the moment of death' was not significant anymore.

Depression

For depression the models were built in the same order. In the first Model there were main effects for time, gender and age of the child; through time the grief symptoms decreased and women had higher levels of grief than men (Table 3 and 4). The higher the age of the child, the higher the levels of depression of the parents. In Model 2, in contrast to predicting grief, none of the unchangeable variables were predictors of the level of depression of the parent. In Model 3 the changeable circumstances were added. Here again, none of the added variables were significant predictors of the depression of the parent.

Discussion

It has long been assumed, in popular culture at least, that, even though the loss of a child is a devastating blow for all parents, the circumstances surrounding the death can aggravate or ameliorate the loss experience. And yet, apart from the expectedness of the loss (for overview see Stroebe & Schut, 2001), the impact of the circumstances surrounding the loss on grief and depression have been little studied. To fill this lacuna in our knowledge, the current investigation focused on the relationship between the circumstances surrounding the loss of a child and levels of psychological adjustment of the parents. We made a distinction between factors that are unchangeable, determined by the situation and those that need a decision (i.e., changeable factors). Of the so-called changeable factors, two factors were related to parents' levels of grief. One of these was whether parents had said farewell to their child. Parents who had said farewell had lower levels of grief during the first two years after the death. These results are in line with findings in the general bereavement research literature showing that saying goodbye is beneficial (Gamino, Sewell, & Easterling, 2000; Schut, de Keijser, van den Bout, & Dijkhuis, 1991). In our study, most of the parents reported at the first point of measurement (at six months after the loss) that they had said goodbye to their child. However, we have no further information on the manner of saying goodbye. It might be that this occurred immediately before or just after the death of the child. But it is also possible that parents said farewell in a symbolic way in the weeks or months after the death. Either way, to have said farewell seems to have had some healing effect.

Quite soon after the child has died, parents have to decide whether or not they want the body of their child presented for viewing at home. Our data revealed that parents whose child was laid out at home had less grief in the two years following the death than those who did not (controlling for other relevant factors). For some parents, presenting the body may not have been possible, for example when the child had been in a violent accident and the body was too badly damaged. One possible interpretation is that when parents present the body at home, it helps them to confront the child's death and that the process of 'recognising' (and accepting) that the child has died is thereby furthered. More specifically, the parents will (have to) experience for some days in their own home, that their formerly living child is now cold and without motion. In addition, presenting the body at home might permit more contact with the deceased child at self-chosen moments on which they feel the urge to do so, thereby facilitating acceptance of the enormity of the fact that their child has died.

There are also decisions that do not appear to influence parents' levels of grief. For example, the decision whether to bury or cremate the body was unrelated to parents' level of grief, suggesting that neither of the two ways needs to be promoted as the better choice for parents. So parents who chose for cremation adjusted as well as parents who chose for burial. Nor were any differences found between parents who did or did not take care of the body themselves after the loss.

On a more general level and in line with previous research (see Prigerson, & Jacobs, 2001; Wijngaards-de Meij et al., 2005), the present analysis revealed clear differences in the impact of the circumstances surrounding the loss on grief versus depression. Whereas most of the circumstances of the death assessed in our study seemed to predict parents' grief, depression was only related to the time since the loss, the gender of the parent, and the age of the child (women had more depression than men; through time the level of depression decreased slightly; the higher the age of the child, the more depression the parents had). Neither the factors that were unchangeably connected to the situation, nor the variables that require a decision, were related to the levels of depression of the parents.

The results of our study also have potentially important clinical implications. In the early days after the child has died, it is hard to support parents in the decisions that have to be made involving the procedures around the death. Even though the relevance of the decisions depends on the situation of the loss, the results of this article may offer some guidelines. First, since parents who presented the body of their child for viewing at home had less grief during the two years following the loss, one could consider recommending this. However, caution is needed: Although our findings suggest that it is helpful to present the body for viewing at home, this might not be true for all parents (in our study the parents made their own decision). The second variable related to adjustment was whether the parents felt they had said

goodbye to their child. It might be recommended to the parents to find their own way to say goodbye. If there was no possibility to do so before or at the moment of the death, after the loss parents might be encouraged to find a symbolic way to say farewell. It is also important to note that some difficult decisions that had to be made by the parents were not related to their psychological adjustment (e.g, such as whether to care for the body of their child themselves, or whether to have their child cremated or buried). For caretakers in the early days of bereavement, these results may provide relevant information for forming guidelines, although caution is needed because no causal relationship was tested in our study.

Some remarks need to be made about limitations of our study. For ethical reasons, our first measurement moment was at six months after the loss of the child. This implies that the information on the circumstances around the moment of death was gathered retrospectively. Although, given the critical nature of the loss experience, parents are likely to have a clear memory of the circumstances surrounding this event, it could be argued that our design does not really provide a strong basis for causal conclusions with regard to the impact of the changeable variables on grief and depression. But even if one were able to measure at the time of the death, one could not have ruled out the possibility that parents who were more depressed were less likely to say farewell or to present the body of their child for viewing. Furthermore, the distinction made in this study between changeable and unchangeable variables is not always as clear as it might seem. Future studies could incorporate more fine grained measures of the changeable and unchangeable variables to further examine the relationships with adjustment of parents (or other bereaved samples).

Our study has not only shown the importance of some decisions that have to be made by the parents in the aftermath of the loss of their child , but also that some decisions are not related to the psychological adjustment of the parents. As discussed above, this is of relevance to those supporting the bereaved in the early days of their loss.

Notes

¹ Clearly it is necessary to consider the interdependency of the above factors in discussing their relationship to outcome.

² An unpublished study in the Netherlands found no differences in grief symptoms for bereaved persons following cremation versus burial (Borst, & Brusik, 2006).

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Chapter 4

Patterns of Attachment and Parents' Adjustment to the Death of their Child

Abstract

The impact of adult attachment on psychological adjustment among bereaved parents and the mediating effect of relationship satisfaction were examined among a sample of 219 couples of parents. Data collection took place 6, 13 and 20 months after loss. Use of the Actor Partner Interdependence Model (APIM) in multilevel regression analysis enabled exploration of both individual as well as partner attachment as predictors of grief and depression. Results indicated that the more insecurely attached parents were (on both avoidance and anxiety attachment), the higher the symptoms of grief and depression. Neither the attachment pattern of the partner nor similarity of attachment within the couple had any influence on psychological adjustment of the parent. Marital satisfaction partially mediated the association of anxious attachment with symptomatology. Contrary to previous research findings, avoidant attachment was associated with high grief intensity. These findings challenge the notion that the avoidantly attached are resilient.

Wijngaards-de Meij, L., Stroebe, M., Schut, H., Stroebe, W., van den Bout, J., van der Heijden, P.G.M., & Dijkstra, I. *Personality and Social Psychology Bulletin* (2007), 33, 537-548.

Introduction

The loss of a child is a devastating event that severely disrupts the lives of those affected (for reviews, see Archer, 1999; Rubin & Malkinson, 2001). Research has shown that loss of a child has psychological and physical health consequences for the parents, including an increased risk of mortality (Li, Precht, Mortensen, & Olsen, 2003). In Western society, the death of a child has generally been found to elicit more intense and complicated grief reactions than other types of bereavement, due to a variety of complex features associated with both the parental bereavement experience itself, and the nature of parent-child bonding (Sanders, 1989). These include survivor guilt, powerful psychological and social drives to care for one's offspring (the child should outlive the parent), and lost opportunity for legacy (e.g., Rubin, 1993).

Parental bereavement is further complicated by the fact that parents as couples have to face their bereavement together: Not only has the couple lost their child, but the person to whom they would probably turn in a situation of distress, is actually suffering intensely too and may be too distressed to provide support. There may also be discordance between partners in the ways that they go about their grieving (e.g., in the need to confront memories and talk about the deceased child) which may add to individual distress and marital disruption (Dijkstra & Stroebe, 1998). Although both parents are likely to suffer greatly from the loss, there can be substantial differences in reactions among them and this difference could affect the grieving process (for reviews, see Dijkstra & Stroebe, 1998; Dyregrov, Nordanger, & Dyregrov, 2003).

Relevance of attachment theory to bereavement: A resumé

Attachment theory provides a unique way to characterize individual differences in reactions to child loss (e.g., Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969/1982, 1973, 1980), particularly since it focuses on the formation, maintenance and dissolution of interpersonal relationships, linking patterns of attachment to individual well-being (see below). More specifically, given its focus on the nature of a person's relationships and adjustment in situations of separation, attachment theory provides a useful way to characterize individual differences in reactions to loss. In the case of child loss, two types of relationship (at least) are altered: Not only has the parent-child attachment bond been broken through the child's death, but, it seems likely that the bond between the parents themselves may have been disrupted or at least put under enormous pressure.

According to attachment theory, human beings are born with an innate psychobiological system, the attachment behavioural system, that motivates them to seek proximity to significant others in times of need as a way of protecting

themselves from threats and alleviating distress (Bowlby, 1969/1982, 1973, 1980). The theory postulates different styles of attachment, formed through the early parent-child relationship, which guide responses to emotionally distressing situations such as bereavement. Links have been made between these different styles of attachment and health. For example, insecure individuals in general tend to have more mental health problems and lower levels of well-being compared with the more securely attached (Cassidy & Shaver, 1999; Goodwin, 2003; Main, 1996).

Recently, attachment theorists have made strong arguments for conceptualising attachment strategies in terms of two major dimensions, avoidance and anxiety (Brennan, Clark, & Shaver, 1998). The different dimensions of attachment can be understood in terms of patterns that guide responses to emotionally distressing situations such as bereavement (Fraley & Shaver, 2000; Mikulincer, Shaver, & Pereg, 2003). The first dimension, typically called attachment avoidance, has been described as reflecting the extent to which a person distrusts a relationship partners' goodwill and strives to maintain autonomy and emotional distance from partners. The second dimension, typically called attachment anxiety, reflects the degree to which a person worries that a partner will not be available in times of need (Mikulincer, Dolev, & Shaver, 2004).

Attachment theorists have also made predictions with respect to differences in adjustment to bereavement associated with these attachment styles: persons with a secure style of attachment would typically adjust more easily to loss than those with insecure styles (Parkes, 2001; Shaver & Tancredy, 2001). According to Shaver and Tancredy (2001): "... prototypically secure individuals will react emotionally to the loss of an important relationship partner but will not feel overwhelmed by grief. ... Individuals high in avoidant attachment are not likely to become emotional about such losses ... They may always, for example, have limited the extent to which they depended emotionally on their relationship partner. In contrast, individuals high in anxious attachment ... are probably among the people whom bereavement researchers have found to be very emotional and preoccupied following loss". (p. 78/79).

Empirical studies of attachment and bereavement outcome

Surprisingly, to our knowledge no empirical investigations have yet been conducted to examine the validity of such attachment theory claims in the adjustment of parents following the loss of their child. Most studies have reported findings for the spousally bereaved, and these results support the hypothesis that securely attached persons adjust better to loss than insecurely attached. In a study by Waskowic and Chartier (2003) insecure widows or widowers scored higher on several subscales of the Grief Experience Inventory: they felt more anger, guilt and despair than secure widows. This study did not differentiate between types of

insecure attachment. Nor was this done in a second study, by Van Doorn et al. (1998), which included 59 bereaved persons following the terminal illness of their spouse. They found that insecure attachment styles put spouses at elevated risk for intense grief symptoms, but not for depression. These results are in line with attachment theory predictions.

Very few studies have explored hypotheses about specific insecure patterns of attachment in relation to bereavement reactions. In one of the studies that did, Field and Sundin (2001) followed 32 widows and widowers over a period of 5 years after loss. As predicted, anxious / ambivalent attachment (which was not derived from a standard attachment style measure but from one of compulsive care-seeking) appeared to be associated with appraised inability to cope with the loss and more severe grief symptomatology over the course of 5 years. A dismissing style of attachment (derived from compulsive self-reliance) appeared to be unrelated to symptomatology, as was expected. Fearful persons (derived from angry-withdrawal) were also higher in symptomatology early on in bereavement, but not later. In a further study, Wayment and Vierthaler (2002) investigated attachment patterns in relationship to adjustment among 92 bereaved adults who had lost a loved one in the previous 18 months. Consistent with predictions, they found that persons high on the dimension anxious attachment had higher grief and depression symptoms, while there were no associations between avoidant attachment and grief and depression.

Recently, Fraley and Bonanno (2004) examined the relationship between attachment dimensions and adaptation to bereavement in 59 bereaved adults. This study was conducted longitudinally (4 and 18 months post loss). As in the studies reviewed above, Fraley and Bonanno (2004) reported that - in contrast to preoccupied individuals who have elevated levels of grief, depression, anxiety and post traumatic stress reactions - dismissing avoidance was not associated with higher levels of symptomatology. Fraley and Bonanno (2004) also found that those with a so-called fearful avoidance style had extremely high symptomatology. Although Fraley and Bonanno used measures of attachment dimensions, they reverted to the four types of attachment (Bartholomew & Horowitz, 1991) to discuss their results.

The above studies suggest that there are substantial individual differences in adjustment to bereavement according to patterns of attachment. However, only a small number of investigations have been conducted so far, with small samples, most of them cross-sectional in design. Furthermore, most studies use categories according to attachment styles in reporting, rather than dimensions, as is now standard practice and considered superior in the attachment field. The range of samples has also been limited to spouses or has been poorly specified. Thus, it seems important to extend this type of investigation to examine whether similar patterns will be found for the situation of losing a child. As noted earlier, this type of loss is generally even more devastating and stressful than other types of loss. Furthermore, loss of a child

represents loss of a different kind of attachment from that of a partner, namely, that of a caregiving relationship. In addition, expansion of the scope of investigation of attachment patterns is possible: The investigation of parents' bereavement also enables examination of the impact of attachment patterns in a couple (they are dealing with their ongoing relationship at the same time as dealing with the lost relationship with their child).

Overview of the present research

In a separate account of this longitudinal dataset on the relationship of neuroticism and attachment style to adjustment in bereavement, we reported that attachment style explained a unique part of the variance in grief and depression (Wijngaards-de Meij et al., 2007). In that investigation, we did not look at the individual and interactive effects of attachment styles, nor at the effect of the attachment style of the partner on the adjustment process. Furthermore, we did not focus on the impact of the specific types of insecure attachment on the course of symptomatology over time.

The purpose of the current investigation was to clarify individual differences in parents' adjustment to the death of their child, using predictions from attachment theory to try to identify patterns. On the one hand, the goal was clinically oriented: to gain understanding about comparative vulnerabilities among bereaved parents. On the other hand, there was a strong theoretical interest: given the limited scope and information available from previous studies, it was considered important to further examine attachment theory predictions about the relationship between the different dimensions of attachment and bereavement outcome.

The design of the study permitted examination of psychological adjustment in relationship to patterns of attachment of both the individual as well as of the partner. Both depression and grief were included as dependent measures, given that previous research has shown these to be distinct syndromes in response to bereavement (Prigerson et al., 1998). Based on the previous theoretical and empirical findings, it was expected that anxious attachment of the parent would be positively related to symptomatology. This association was expected to be (partly) mediated by the marital satisfaction of the parent, because in previous research the quality of a marriage shortly after the loss of a child has been shown to affect the grief responses of bereaved couples 2 and 4 years after the loss (Lang, Gottlieb, & Amsel, 1996). Predictions with respect to avoidant attachment were different: given that avoidant persons are unable to express their grief (cf. Parkes, 2001; Shaver & Tancredy, 2001) and following the results of the studies reviewed above, it was expected that avoidant attachment would be unrelated to psychological adjustment after bereavement. Given the longitudinal design of our data possible effects of adult

attachment on the paths through time were also studied. Furthermore, to exclude possible gender effects, all analyses were controlled for gender.

Method

Design

The design of the study was longitudinal, consisting of three points of measurement at 6, 13 and 20 months after the death of the child. The attrition rate was 17.8% over this 14 month period. The biographical data about the parents, the child and circumstances surrounding the loss were gathered during an interview with the couple at the first measurement point after their loss. At all three moments in time, parents were asked to fill in a set of questionnaires separately. Adult attachment was measured once, at the first measurement moment, at 6 months after the loss. The dependent variables grief and depression, and the mediating variable marital satisfaction were measured at all three moments in time.

Participants

In total 463 Dutch couples who had lost a child were contacted via obituary notices in local and national newspapers. Bereaved parents who were grandparents (i.e., those parents whose deceased child was a parent him/herself) were not included in this investigation, given that they are likely to experience additional difficulties. Single parents were also excluded, because the study was focussed on individual and partner predictors of grief. In total, 219 parent couples (47%) agreed to participate. Informed consent procedures were utilized. The parents who participated ranged in age from 26 to 68 years ($M = 42.2$, $SD = 9.1$) and their deceased child's age ranged from stillborn to 29 years with a mean age of 10.2 years ($SD = 9.8$).¹ A total of 68.7% of the deceased children were boys. The causes of death varied from neonatal death or stillborn (16.3%), through illness or disorder (47.7%), to accident, SIDS, suicide or homicide (36.1%).

Measurement instruments

Dependent variables

Grief reactions were measured with the Inventory of Complicated Grief (ICG, Prigerson et al., 1995; Dutch version by Dijkstra, Schut, Stroebe, Stroebe & Van den Bout, 2000). The ICG consists of 19 items covering psychological aspects of grief, e.g., 'I find it difficult to accept the death of our child' and 'I feel that it is unfair that I should live when our child died'. The answers are given on a five-point scale ranging

from 'never'(1) through 'sometimes'(3) to 'always'(5). In our study the Cronbach's alpha was .90 to .92, and test-retest coefficients varied from .81 to .88.

Depression was measured using the subscale of the Symptom Checklist-90 (SCL-90, Derogatis, 1977; Dutch version by Arrindell & Ettema, 1986). The subscale depressive symptomatology consists of 16 items. Answers are given on a five-point scale, ranging from 'not at all'(1) to 'very much'(5). In our study Cronbach's alpha ranged from .92 to .94 and test-retest reliability was .74 to .83. The dependent variables were transformed to a scale 0-100 to facilitate comparison between the predictors and the comparison between the predictive value for depression and grief.

Independent variables

Attachment was measured using the Adult Attachment Scale (AAS, Collins & Read, 1990). In line with contemporary agreement on the two dimension structure of attachment, the two subscales, anxiety and avoidance, were used (Brennan, Clark, & Shaver, 1998). To construct these scales, we followed the item-structure by Hazan and Shaver (1987).² A confirmative factor analysis was conducted for both scales in which the items that had factor loadings below the .32 were not selected. The anxious attachment scale consisted of 6 items, e.g. 'I often worry that my partner doesn't love me' and 'I find others are reluctant to get as close as I would like'. Cronbach's alpha was .61. The avoidance scale consisted of 5 items, e.g. 'People are never there when you need them' and 'I am somewhat uncomfortable being close to others'. Cronbach's alpha was .60. High scores represent more insecure attachment.

Marital Satisfaction was measured by means of eight items of the Relational Interaction Satisfaction Scale (RISS, Buunk & Nijskens, 1980), e.g. 'I regret being involved in this relationship' and 'I enjoy the company of my partner'. The RISS has high internal consistency (Cronbach's alpha was .85 to .92, Buunk & Van Yperen, 1991) and results from our study confirm this with alpha's ranging from .86 to .92. Higher scores indicate more marital satisfaction.

Control variables

Factors that vary between couples (between dyads) assessed in this study were child's age, cause of death, expectedness of the loss (5-point scale), number of remaining children, and subsequent pregnancy and/or baby 20 months after the death. Cause of death was categorised in three groups: stillbirth or neonatal death (0), illness or disorder (1), or traumatic/unnatural death (SIDS, accident, suicide, homicide) (2). Individual factors were education (6-point scale), employment (in hours), religious affiliation (non-religious vs. religious), and professional help-seeking.

Analysis and Statistical procedure

To deal with the complications associated with having multiple predictors in a dependent structure, the data were analysed with multilevel regression analysis (Hox, 2002). A unique feature of multilevel analysis is that it works with a specific statistical model designed for nested data. In our data there is a nested structure captured by a three-level hierarchy. The three measurement moments in time are nested in one person, the father or mother. The measurements of the father and mother are dependent and are thereby nested in a couple. Therefore time since death is the lowest level (1st level), nested in the individual, the parent (2nd level). The parents (2nd level) are nested in a couple (3rd level). Each independent variable varies only at one specific level³. Time since the loss of the child varies only at the lowest level, the time level (1st level). The individual factors of the two parents (e.g. gender) differ at the individual level (2nd level). The remaining factors are the same for the parents in a couple (e.g., cause of death, age of the child), but these factors do vary between the couples at the couple level (3rd level). For each of the two dependent variables (grief and depression) a multilevel regression analysis was done with MLwiN (Rasbash et al., 2000).

To analyse the individual parent effect, the partner effect and possible interactions, we used the Actor Partner Interdependence Model (APIM) (Kashy & Kenny, 2000; Kenny, Mannetti, Pierro, Livi, & Kashy, 2002). The Actor Partner Interdependence Model was tested, as recommended by Campbell and Kashy (2002), within a multilevel regression analysis. The APIM is appropriate when the dyad (i.e., the marital couple) is the unit of analysis and tests need to be performed both within and between dyads (Kenny, 1996; Rholes, Simpson & Friedman, 2006). Variables are assessed for both the actor and his or her marital partner. Use of the APIM then allows one to assess not only whether an actor's own attributes predict his or her responses but also whether the attributes of the actor's partner also predict the actor's responses, while the impact of the actor's own attributes is controlled. In our study, the actor effect estimates the effect that an actor's own score on the independent variable (e.g., anxious attachment) has on that person's outcome measure (e.g., grief), and the partner effect estimates the effect that scores of the partner on the independent variable have on the actor's outcome (Kashy & Kenny, 2000, Kenny, Mannetti, Pierro, Livi, & Kashy, 2002). In the model not only the actor and the partner effects of variables can be tested, but also several interactions involving the actor and/ or partner variables.

Multilevel analysis has advantages with respect to dealing with missing data. Problems associated with panel attrition (i.e., individuals who, after one or more measurement occasions, drop out of the study) are of relevance here. Multilevel analysis leads to unbiased estimates when the panel attrition follows a pattern

defined as missing-at-random (for more information see Hox, 2002; Little, Schnabel, & Baumert, 2000).

We started with a simple model, Model 1, which included the variables time and gender. In Model 2 the adult attachment variables of the actor were introduced and in Model 3 the adult attachment variables of the partner as well as interactions between these variables with the attachment variables of the actor were introduced. In each model interactions between the independent variables and time were tested to see whether different trends through time were related to these variables. After Model 3, the final model of the attachment variables (Model 4) was made by excluding the variables and interactions that were not significant. In Model 5 and 6 the mediation of marital satisfaction between the adult attachment variables and grief and depression was tested.

Results

Descriptive Statistics & Correlations

The descriptive statistics for the independent and dependent variables can be found in Table 1. Table 2 presents zero-order correlations among the attachment dimensions of the actor and partner, the marital satisfaction (mediator) at 6 months post loss, as well as the correlation of these variables with grief and depression.

Time and gender (Model 1)

The variable time (coded 0, 1 and 2) and the variable gender (0=male, 1=female) were introduced in Model 1 (Table 3). As time goes by, grief symptoms and depression decrease (resp. $b=-2,367$, $p<.05$; $b=-1,823$, $p<.05$). It is possible that the regression slope for time (the rate in which the symptoms decrease) differs for individuals and/ or couples. This possibility was checked for both grief and depression. The decrease in grief through time varied only between the couples of parents (3rd level), while the decrease in depression varied between individual parents (2nd level) as well as between couples. To identify which factors were responsible for particular trends through time, interactions between time and the independent variables were conducted in the following models.

Women reported more grief and depression symptoms than men. The slope of the symptoms through time did not vary between men and women, so the decrease in symptoms through time was the same for men and women.

Table 1 Descriptive Statistics: Means, SD (n=438), within couple correlations (n=219) and test-retest coefficients

| | Mean (SD) (t=0) | Mean (SD) (t=1) | Mean (SD) (t=2) | Within couple correlations (t=0) | Test-retest coefficients t0-t1 | Test-retest coefficients t1-t2 |
|-----------------|--------------------|--------------------|--------------------|-------------------------------------|-----------------------------------|-----------------------------------|
| Avoidant Att. | 2.35 (.66) | - | - | .15 | - | - |
| Anxious Att. | 2.07 (.62) | - | - | .16 | - | - |
| Grief | 45.24 (19.80) | 43.00 (18.65) | 41.65 (18.21) | .56 | .85 | .88 |
| Depression | 23.94 (19.71) | 22.17 (19.12) | 20.56 (18.00) | .32 | .83 | .84 |
| Marital Satisf. | 35.45 (4.13) | 35.62 (4.21) | 35.45 (4.15) | .50 | .74 | .77 |

Table 2 Correlations at 6 months after the bereavement (t=0)

| | Actor avoid. att. | Actor anxs att. | Partner avoid. att. | Partner anxious att. | Marital Satisfaction | Grief | Depression |
|-----------------------|----------------------|--------------------|------------------------|-------------------------|-------------------------|-------|------------|
| Actor avoidant att. | 1 | .32* | .15* | .08* | -.12* | .27* | .33* |
| Actor anxious att. | | 1 | .09* | .16* | -.33* | .27* | .31* |
| Partner avoidant att. | | | 1 | .32* | -.16* | .11* | .13* |
| Partner anxious att. | | | | 1 | -.23* | .08* | .09* |
| Marital Satisfaction | | | | | 1 | -.26* | -.26* |
| Grief | | | | | | 1 | .72* |

* Correlation is significant at the 0.01 level.

Table 3 Summary of APIM analyses for grief

| Predictors | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| | B | (SE) | B | (SE) | B | (SE) | B | (SE) |
| Time | -2.367* | (0.841) | -2.207* | (0.318) | -2.192* | (1.907) | -2.196* | (0.327) |
| Gender | 8.014* | (1.158) | 7.600* | (1.011) | 7.614* | (1.014) | 7.607* | (1.014) |
| Actor avoidant att. | | | 4.389* | (1.159) | 5.223* | (1.381) | 5.217* | (1.384) |
| Actor anxious att. | | | 7.088* | (1.479) | 6.693* | (1.726) | 6.762* | (1.738) |
| Actor avoid x anxs att. | | | 1.791 | (1.805) | 2.014 | (2.327) | 1.757 | (2.345) |
| Partner avoidant att. | | | | | 1.729 | (1.378) | 1.723 | (1.382) |
| Partner anxious att. | | | | | 0.185 | (1.735) | -0.026 | (1.755) |
| Partner avoid x anxs att. | | | | | -0.882 | (2.314) | -1.189 | (2.347) |
| Actor x Partner avoid att. | | | | | | | 1.670 | (2.724) |
| Actor x Partner anxs att. | | | | | | | -1.739 | (2.398) |
| Interaction with time | | | | | | | | |
| Time x Gender | 0.122 | (0.514) | | | | | | |
| Time x actor avoid att | | | 0.065 | (0.494) | 0.056 | (0.512) | | |
| Time x actor anxs att. | | | -1.687* | (0.648) | -1.756* | (0.662) | -1.775* | (0.662) |
| Time x partner avoid att. | | | | | -0.092 | (0.507) | | |
| Time x partner anxs att. | | | | | -0.185 | (0.679) | | |

* p<.05

Table 4 Summary of APIM analyses for depression

| Predictors | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| | B | (SE) | B | (SE) | B | (SE) | B | (SE) |
| Time | -1.823* | (0.323) | -1.814* | (0.335) | -1.828* | (0.341) | -1.829* | (0.327) |
| Gender | 12.620* | (1.137) | 11.342* | (1.157) | 11.435* | (1.165) | 11.439* | (1.014) |
| Actor avoidant att. | | | 5.617* | (1.232) | 8.842* | (1.628) | 5.208* | (1.384) |
| Actor anxious att. | | | 8.841* | (1.563) | 5.256* | (1.295) | 8.745* | (1.738) |
| Actor avoid x anxs att. | | | 3.360 | (1.918) | 3.229 | (2.112) | 3.097 | (2.345) |
| Partner avoidant att. | | | | | 1.251 | (1.305) | 1.203 | (1.309) |
| Partner anxious att. | | | | | 0.688 | (1.631) | 0.579 | (1.651) |
| Partner avoid x anxs att. | | | | | -1.500 | (2.105) | -1.623 | (2.136) |
| Actor x Partner avoid att. | | | | | | | -1.749 | (2.037) |
| Actor x Partner anxs att. | | | | | | | 0.077 | (2.749) |
| Interaction with time | | | | | | | | |
| Time x Gender | -0.483 | (0.573) | | | | | | |
| Time x actor avoid att | | | -0.731 | (0.544) | -0.384 | (0.557) | | |
| Time x actor anxs att. | | | -1.833* | (0.701) | -2.140* | (1.631) | -2.140* | (0.662) |
| Time x partner avoid att. | | | | | -0.345 | (0.742) | | |
| Time x partner anxs att. | | | | | 0.041 | (0.553) | | |

* p<.05

Adult attachment dimensions of the actor (Model 2)

In Model 2, anxious attachment and avoidant attachment (as individual dimensional characteristics) were put into the equation, as well as the interaction term, individual anxious attachment by individual avoidant attachment. Both individual attachment measures were positive predictors of grief and depression; the more anxiously attached the person was, the more grief and depression s/he showed (e.g., $b=7.088$, $p<.05$; see Table 3). Also, the higher the parent scored on avoidant attachment, the more grief and depression symptoms the parent had (e.g., $b=4.389$, $p<.05$). There was no significant effect of the interaction between the two individual attachment dimensions.

To check whether attachment styles were associated with the differences between the couples through time, the interaction between both avoidant attachment with time, and of anxious attachment with time were checked. For grief there was only one small interaction: the interaction between the anxious attachment and time was significant, indicating that parents with high anxious attachment showed a steeper decline in grief symptoms through time than the parents who were low in anxious attachment ($b= 1.687$, $p<.05$, Table 3).⁴ At 20 months post-loss anxiously attached parents still had more intense grief than low-anxiously attached parents.

For the dependent variable depression, the interaction between anxious attachment and time was also significant ($p<.05$). Parents who were anxiously attached had more depression symptoms at 6 months after the loss, but showed a steeper decline, reducing the discrepancy between the more and less anxiously attached. For both grief and depression there were no differences in time related to avoidant attachment.

Partner attachment dimensions (Model 3)

In Model 3, the attachment variables of the partner were introduced. Neither of the two attachment variables of the partner, avoidant attachment and anxious attachment, were significant, nor was the interaction between the partner attachment variables (all $p>.05$, Table 3 and 4).

For both grief and depression, the partner attachment dimensions were not related to different trends through time (which was checked by interactions between time and the partner attachment dimensions). The interactions between the attachment dimensions and time which were not significant were taken out of the model before going to the next step.

Interactions between actor and partner attachment dimensions (Model 4)

The extra effects of combinations of attachment dimensions between the parents within the couple, on grief and depression were tested: the attachment dimension of the parent (actor) and the partner were combined by multiplying the score of the

actor by the score of the partner (both variables were centred, Aiken & West, 1991). The interactions between the attachment variable of the actor and the attachment variable(s) of the partner on grief and depression were not significant.

Control Variables

To check whether the attachment effects were the same for men and women, we tested the interaction between gender and attachment dimensions (of the actor as well as of the partner). These were not significant and were not included in the final model.

To control for confounding effects from relationships between demographic and situational variables with grief and depression (Wijngaards-de Meij et al., 2005), these variables were introduced step-by-step in Model 6. The introduction of these variables into Model 6 did not result in significant changes.

Mediation (Model 5 and 6)

For the final attachment model, the variables which were not significant were excluded from the model which resulted in Model 5. To check whether the association between the attachment style and depression was mediated by marital satisfaction⁵, the variable 'marital satisfaction' was included in Model 6 (similar procedure for grief). The attachment dimensions and the mediator are both fixed variables on the same level and therefore a mediation procedure can be validly tested in the multilevel context (Krull & MacKinnon, 1999; Hox, 2006). Following the procedure of Sobel (1982), it was shown that marital satisfaction partly mediated the association of the anxious attachment of the actor with depression. Although the regression weight of anxious attachment remained significant after inclusion of marital satisfaction in the model, according to the T-test of Freedman and Schatzkin (1992; see also MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002), the decrease in slope (e.g. from $b=8.680$ to 6.868 for depression, see Table 5) was significant ($p<.05$). When the parent was anxiously attached, this was associated with less marital satisfaction ($p<.05$, see Table 6), and low marital satisfaction in turn was associated with more depression ($p<.05$). There was no significant decrease in the slope of avoidant attachment on depression when marital satisfaction was included in the model. The same mediation process was checked for the dependent variable grief and attachment style and the decrease in slope was not found significant.

Explained variance

The part of the variation in, for example, grief symptoms, that can be predicted by the variables in the model is known as explained variance. Of the variance⁶ in grief a sum of 10% was explained by the attachment variables in the model. In depression, 18% of the variance was explained by the attachment variables.

Table 5 Mediation of marital satisfaction

| Predictors | Grief | | Depression | |
|------------------------------------|-------------------|-------------------|-------------------|-------------------|
| | Model 5 B (SE) | Model 6 B (SE) | Model 5 B (SE) | Model 6 B (SE) |
| Time | -2.206* (0.33) | -2.232* (0.33) | -1.807 (0.64) | -1.935* (0.33) |
| Gender | 7.614* (1.02) | 7.392* (1.02) | 11.398* (1.17) | 10.618* (1.13) |
| Actor avoidant att. | 4.582* (1.08) | 4.565* (1.08) | 5.195* (1.13) | 5.130* (1.11) |
| Actor anxious att. | 6.810* (1.45) | 6.141* (1.46) | 8.680* (1.53) | 6.868* (1.55) |
| Marital Satisfaction | | -0.407* (0.12) | | -0.880* (0.12) |
| Interaction time | | | | |
| Time x Actor anxious attachment | -1.612* (0.59) | -1.662* (0.60) | -2.135* (0.64) | -2.247* (0.64) |

* p<.05

Table 6 Summary of APIM analyses of marital satisfaction

| Predictors | Marital satisfaction | |
|---------------------------------------|----------------------|-------|
| | B | s.e. |
| Gender (0 = father) | -0.737* | 0.213 |
| Actor avoidant attachment | -0.020 | 0.241 |
| Actor anxious attachment | -2.183* | 0.325 |
| Actor anxious x avoidant attachment | -0.493 | 0.424 |
| Partner avoidant attachment | -0.352 | 0.239 |
| Partner anxious attachment | -1.298* | 0.305 |
| Partner anxious x avoidant attachment | -1.051* | 0.424 |
| Interactions | | |
| Gender x anxious attachment (actor) | -0.764* | 0.250 |
| Gender x avoidant attachment (actor) | 0.246 | 0.222 |

* p<.05

Discussion

The results of our study provide some unique information about persons likely to be at high risk of poor bereavement outcome following the loss of a child. Given that bereaved parents are such a highly vulnerable group (e.g., Li et al., 2003), it is indeed important to gain insight into the mechanisms associated with individual differences in bereavement reactions. Our results also challenge some basic assumptions that have been formulated on the basis of recent bereavement research on attachment, while - at the same time - demonstrating that the attachment perspective is an important framework for understanding individual differences in parental adjustment following the loss of a child.

Attachment emerged from our study as a strong predictor of bereavement outcome among bereaved parents: After controlling for individual and loss-related risk factors, of the remaining variance of grief, 14% was explained by the attachment dimensions of the parents, and of the variance of depression 16% was explained. Looking more specifically at the dimensions of attachment, there were some expected and some unexpected results. The association that was found between high anxious attachment and more grief and depression parallels that found in the previous studies on bereavement quite closely (Field & Sundin, 2001; Wayment & Vierthaler, 2002). It seems that bereaved parents who score high on the dimension anxious attachment - like the bereaved groups in the other studies - are very likely to suffer extremely following the loss of their child. Persons high on the dimension anxious attachment, whose relationship style is typified by highly-dependent insecurity, can be considered at high risk of poor bereavement outcome.

More surprisingly - and in contrast to the research reviewed earlier (Field & Sundin, 2001; Fraley & Bonanno, 2004; Wayment & Vierthaler, 2002) - avoidant attachment was also associated with an increase in emotional problems: Among the bereaved parents in our study, those scoring high on the avoidant dimension were more vulnerable to the negative effects of bereavement than those scoring low on this dimension, whereas none of the previous studies had reported such an effect. Our findings do not fit previous understanding: Fraley and Bonanno (2004) had concluded that dismissing avoidance was associated with a "resilient pattern of symptoms" (p. 887). They detailed broader theoretical implications, namely, that patterns of dismissing-avoidance should not be considered a maladaptive defense mechanism. Following this, the attachment theory assumption that emotional avoidance is indicative of poor psychological adjustment was taken to be incorrect. Clearly, none of these interpretations could be made on the basis of our results: bereaved parents whose interpersonal relationship style is characterized by discomfort with and wariness of closeness or intimacy are not resilient, do not use defense mechanisms effectively, and are not psychologically well-adjusted.

Why, then, are our results be so different from the other studies, how can they be interpreted, and what are the theoretical and clinical implications? First, it is important to remember that other major attachment theorists working in the field of bereavement, such as Shaver and Tancredy (2001) and Parkes (2001), clearly agreed with Fraley and Bonanno (2004) that bereaved persons high on avoidance would not be expected to exhibit more symptoms of grief. This is in line with formulations by Cassidy and Kobak (1988), who argued that the deactivating mechanisms used by avoidantly attached adults (such as minimizing the emotional involvement with and dependence on others and the pursuit of autonomy and control) result in less emotional problems. However, ours have not been the only results to apparently contradict these theoretical arguments. Similar findings were described by Mikulincer, Dolev and Shaver (2004). In two studies of attachment-related variations in thought suppression, these investigators found that under high cognitive load avoidant participants were less able to suppress thoughts of separation and were more likely to activate negative self-representations. The authors interpreted these patterns in terms of a so-called 'rebound effect' involving avoidant attachment strategies. While avoidant strategies would be expected to be useful in situations with a low amount of stress, during prolonged, highly demanding stressful experiences, these strategies prove useless (for review, see Mikulincer & Shaver, 2003). Deactivating strategies (as we noted at the outset, these are typical for avoidant attachment) can collapse in such situations, revealing a sense of shortfall in coping and a decline in functioning.

Linking this analysis to our own results: We have noted that death of a child is a prolonged and extremely stressful experience, even more so than other types of bereavement. Following this, it seems reasonable to assume that parents who were high in avoidant attachment had more grief symptoms and more depression because the loss of their child led to a situation where their deactivating strategies were no longer functional. They cannot shut off thinking about the painful loss of their child. In cases of extremely severe bereavements, then, avoidance seems no longer to "work" for individuals as a defense mechanism (cf. Edelstein & Shaver, 2004). In conclusion: Avoidantly attached parents undergoing this extreme type of bereavement must also be considered a high risk subgroup, one that, like the anxiously attached, may be in need of intervention (cf. Schut & Stroebe, 2006).

Whereas other studies looked only at the individual patterns, we also looked at the attachment of the partner, this being especially relevant in studying parental bereavement. In our study, grief and depression symptoms were unrelated to insecurity of the partner's attachment. Furthermore there were neither any combinations between attachment dimensions of the actor and the partner, nor with gender. Contrary to these findings, we did find partner effects of anxious attachment on marital satisfaction, generally in line with those previously found in non-

bereavement settings (e.g. Banse, 2004). So, although insecurity of attachment of both the parent and his or her partner is important for marital satisfaction, only insecurity of the parent him or herself is important for grief and depression. Perhaps the above patterns of results have to do with the different natures of attachment to one's partner and one's child.

An additional pattern was found with respect to parents who were high on anxious attachment. For these parents, the problems in psychological adjustment were partly related to marital satisfaction. Specifically, at all three moments in time, anxiously attached parents were lower in marital satisfaction, and when they were lower in satisfaction this was associated with more depression. In contrast, although parents who were high on avoidant attachment were also higher on depression, this association was unrelated to marital satisfaction. It seems likely that in the situation of an anxiously attached parent, the parent has high expectations of the support and care-giving of their partner. These expectations are probably not met by their partner, he or she being similarly distressed. Possibly such expectations do not pertain for the parent who scored high on avoidant attachment. Further research is needed to gain more insight into the processes underlying these patterns of results.

Although there has been very little research on the association between adult attachment and grief processes through time, the expectations of specific complicated grief patterns related to attachment have been frequently suggested (for a review see Stroebe, Schut & Stroebe, 2005), based on the patterns described by Bowlby (1980)⁷. In our study, these expectations were not confirmed: in general, through time the decrease in symptoms was not associated with the attachment dimensions. There was one small effect in time for parents who were high in anxious attachment: their rates decrease relatively more rapidly than those low in anxious attachment (although they remain higher in grief through time). Two explanations can be suggested to account for this. First, although the attachment dimensions are seen as quite consistent over time (Davila & Cobb, 2004) it is possible that anxiously attached individuals become even more anxiously attached after bereavement and return to their still high levels over time (we discuss this further below). Second, there is more room for "improvement", in the sense of lowering of their scores, since these were very high (regression to the mean). Such speculations would need further empirical investigation.

Some remarks need to be made about limitations of our study. In prior research, although it is considered "trait-like" and reasonably stable, adult attachment style may be susceptible to some change over time, for example, it may be influenced by major life-events (for a review see Davila & Cobb, 2004). Thus, it is conceivable that there was a shift away from secure attachment following the severe event of child loss. However, even if this were to be the case, it is still important to establish the relation between current adult attachment and psychological adjustment after the

loss. Furthermore, the reliability of the attachment scales were relatively low. Thus, the results of our study are likely to have been conservative. It is noteworthy that we did find actor and partner effects of attachment dimensions on marital satisfaction, implying that the attachment measures were actually quite sensitive. Another point for consideration concerns pre-bereavement symptomatology. For example, since baseline measures are usually difficult - if not impossible - to establish in studies of parents' bereavement, we know nothing about the symptom level of depression before the loss of the child. Insecure attachment has been shown to be related to a variety of clinical problems and disorders (e.g., Dozier, Stovall, & Albus, 1999; Van IJzendoorn & Bakermans-Kranenburg, 1996). Thus we do not know for sure whether patterns of depression were bereavement-specific or general. Clearly a non-bereaved control group would have helped us to establish this. Unfortunately, neither the studies reviewed earlier nor our own investigation included non-bereaved controls. Given the patterns of results from our study, future research would be well advised to include them.

Notwithstanding these considerations, our results clearly show the importance of an adult attachment theory perspective for understanding bereavement. This approach has enabled us to identify high risk subgroups of bereaved parents. The patterns can be used to guide more applied research and ultimately perhaps, intervention. For example, given that marital satisfaction partly mediated the relationship between attachment and depression among parents high on anxious attachment, it would be useful to examine whether these partners could be helped through their grief by counselling that focuses on the marital relationship. Conversely, our findings have interesting implications for attachment theory: we have argued that conclusions drawn about the adaptiveness and "resilience" of avoidant attachment do not hold true for the severe experience of the death of a child. We suggested different processes that are likely to be responsible for this. Again, we hope that the results and explanation that we put forward will stimulate further research, perhaps most importantly, into the nature of avoidant ways of coping, underlying mechanisms and relationships with outcome variables.

¹ The deceased children of the non-respondents turned out to be older than the children of the parents participating in the study ($t(378)=-5.29, p<.001$).

Unfortunately, additional information on non-respondents was not available to investigate further selection effects. It is unlikely that participation was related to financial resources enabling placement of an obituary, because it costs very little to do this in local newspapers in The Netherlands.

² The approach used by Collins (e.g., Collins, Ford, Guichard, & Allard, 2006) differs mainly in that her avoidant scale is constructed by combining avoidant and secure items (of the original Hazan & Shaver conceptualisation). However, the secure-items (which Collins included) were not included in constructing our avoidance scale, because the inclusion of the secure items did not improve the psychometric properties of our avoidance scale.

³ Although the raw scores of each variable can only vary on one level, the aggregated scores of this variable can vary on a higher level (e.g., the averages of the two anxious attachment scores of the couple can vary between the couples on the 3rd level).

⁴ To study differences between couples through time, strictly only variables on couple level can be included.

Because both the actor's attachment as well as the partner's attachment were included in the model, the average attachment of the couple could not be added. Therefore interaction between the individual attachment and time were included in the model (cf. Hox, personal communication, February 2006).

⁵ In previous non-bereavement research, the adult attachment of the actor as well as that of the partner have been found to be reliable predictors of marital satisfaction (Banse, 2004; Feeney, 1999). To assess whether this was also the case in our study, we performed an APIM analysis with marital satisfaction as a dependent variable and actor and partner attachment dimensions as predictors. In contrast to the APIM analyses on grief and depression, in the analysis of marital satisfaction both a (negative) actor effect of anxious attachment was found, as well as a (negative) partner effect of anxious attachment (Table 6). The more anxiously attached the parent is, the lower the marital satisfaction. Anxious attachment of the partner is related to the marital satisfaction of the parent (actor) in the same way: the more anxiously attached the partner is, the lower the actor's marital satisfaction. There was no effect of avoidant attachment on marital satisfaction, but there was a significant interaction between the partner's avoidant attachment and the partner's anxious attachment on marital satisfaction. So when the partner is high on both anxious as well as avoidant attachment, the marital satisfaction of the parent (actor) was even lower. Mothers were lower on marital satisfaction than fathers, and there was also a significant interaction of gender with anxious attachment of the actor:

when mothers were high in anxious attachment, they even had lower marital satisfaction (beside the main effects of gender and anxious attachment).

⁶ The variable anxious attachment explained 4% and 13% of the variance in time, in resp. grief and depression.

⁷ Bowlby (1980) hypothesized that complicated grief would be related to insecure attachment in the following ways. Attachment anxiety would be related to a pattern of chronic grief (prolonged high levels of grief), whereas attachment avoidance would be related to a pattern of delayed grief (an apparent absence of overt grief symptoms early in bereavement and an increase in symptoms over time).

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Neuroticism and Attachment Insecurity as Predictors of Bereavement Outcome

Abstract

Adult attachment dimensions as well as the personality trait neuroticism have been shown to be related to psychological adjustment after bereavement. No investigations so far have studied the relative contribution of these constructs to grief and depression. In our study of 219 bereaved parents, the two adult attachment dimensions, attachment anxiety and attachment avoidance, were compared to the personality trait neuroticism in predicting psychological adjustment. The attachment dimensions explained a unique part over and above neuroticism, but contrary to expectations, neuroticism explained more variance than attachment dimensions. Implications are discussed.

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Introduction

Attachment theory provides a framework for understanding individual differences in grief following the death of a close person (Bowlby, 1980). Insecurity of attachment (i.e. feelings of insecure emotional connectedness to a significant other) is in fact related to poor adjustment to bereavement (for a review, see Stroebe, Schut & Stroebe, 2005). Yet personality theory also offers a promising approach to the study of such patterns, particularly (as we argue below) through the basic trait of neuroticism (McCrae & Costa, 1999). Neuroticism – characterized as a proneness to experience unpleasant and disturbing emotions (McCrae & Costa, 1999) – is related to poorer adjustment after bereavement (Meuser & Marwit, 2000). Questions about the two theoretical approaches arise then: Are we measuring essentially the same construct across the two theoretical domains - or does each of these constructs have unique explanatory power?

Anxious attachment in adulthood reflects the degree to which a person worries that a partner will not be available in times of need, while avoidant attachment has been described as reflecting the extent to which a person distrusts a relationship partners' goodwill and strives to maintain autonomy and emotional distance from partners (Mikulincer, Dolev, & Shaver, 2004). It is important to emphasize that these two dimensions are not referring to generic anxiety or avoidance, but rather to anxiety or avoidance in relationships with other persons. Attachment security clearly has particular relevance to the domain of close relationships, and more specifically, to feelings and behaviors that occur following the ending of such relationships, as in bereavement. It is, after all, a theory of separation anxiety: the attachment behavioral system comes into play particularly in situations where proximity to the loved person is severed (either temporarily or, as in bereavement, permanently).

Turning to the personality predictors, there are good reasons to focus on neuroticism: This trait, which includes anxiety, hostility, depression, self-consciousness, impulsiveness, and vulnerability, has been shown to correlate more highly with insecure dimensions of attachment than any of the other traits (extraversion, agreeableness, conscientiousness or openness to experience). Neuroticism actually correlates even higher with attachment anxiety than with attachment avoidance (Shaver & Brennan, 1992; for a review see Nettle & Shaver, 2006). Another reason to select neuroticism is that it has been researched extensively and is considered to be one of the most central factors of personality (McCrae & Costa, 1999).

While, to our knowledge, no previous study has investigated the comparative explanatory power of theoretical constructs from attachment and personality theories specifically with respect to bereavement outcome, some relevant investigations have

been conducted in other areas. In their recent article, Nettle and Shaver (2006) reported investigation of romantic relationships in association with the neuroticism and the attachment dimensions mentioned above. The attachment dimensions consistently predicted relationship quality better than the Big Five factors. In several further studies from different research areas (e.g. cosmetic surgery, jealousy) similar results were found. For example, in their study comparing the relative contributions of neuroticism and attachment dimensions in the use of cosmetic surgery, Davis and Vernon (2002) found that, although attachment anxiety and neuroticism were highly related, attachment anxiety was a better predictor of having cosmetic surgery than was neuroticism. In his study of jealousy, Buunk (1997) found that the effects of attachment style stayed virtually the same when controlling for neuroticism. Insecurity of attachment was related to high levels of jealousy.

In summary, patterns so far seem to indicate moderate relationships between attachment dimensions and neuroticism: those for anxious attachment are typically the stronger positive ones, with avoidant attachment mostly also showing a positive relationship. Interestingly, in studies examining the relative predictive power of neuroticism and attachment dimensions in predicting relationship related feelings or behavior, attachment dimensions emerged as more highly predictive than neuroticism. Again, this seemed to be particularly the case for anxious attachment, as found across a range of studies. However, it remains to be seen whether these patterns pertain for those enduring the loss of an interpersonal relationship through bereavement. Is there here too an added value in examining and understanding the nature of attachment among persons experiencing this type of stressor?

Thus, the general aim of our study was to try to establish the relative merits of adopting a personality theory compared to the attachment theory perspective for the prediction of bereavement outcome. To this end, we analyzed data from our longitudinal investigation of the adaptation of parents to the death of their child (see also Wijngaards-de Meij, et al., 2005). More specifically, the goals of the present study were as follows: (1) to examine the relationship between anxious and avoidant attachment dimensions and neuroticism and (2) to compare the ability of the constructs neuroticism, from personality theory, and insecurity (avoidant, anxious in relationships) from attachment theory to predict bereavement outcome. In view of the overlap between the constructs of attachment security and neuroticism, and given the research findings reviewed above, we expected neuroticism to have a moderate positive correlation with the anxiety and avoidance attachment dimensions. On the basis of previous results in other domains, and given the fact that attachment theory (1) is an interpersonal relationship approach and (2) that it provides analysis of separation phenomenon, we expected the set of attachment dimensions to explain variance over and above neuroticism in predicting parents'

outcomes. Additionally, we predicted that the adult attachment dimensions would explain more variance in grief and depression than the personality trait neuroticism.

Materials and methods

In total 463 Dutch couples who had lost a child were contacted via obituary notices in local and national newspapers. Bereaved grandparents (i.e., those parents whose deceased child was a parent him/herself) were not included in this investigation, given that they are likely to experience additional difficulties in their grieving. Single parents were also not included, because the study was designed to investigate couples of parents. In total, 219 parent couples (47%) agreed to participate.¹ Informed consent procedures were utilized. Parents who participated ranged in age from 26 to 68 years ($M = 42.2$, $SD = 9.1$) and their deceased child was under 30 years of age ($M = 10.2$, $SD = 9.8$). Of the deceased children, 68.7% were boys. The causes of death varied from neonatal death or stillborn (16.3%), through illness or disorder (47.7%), to accident, SIDS, suicide or homicide (36.1%). There were three points of measurement: 6, 13 and 20 months after the death of the child. The attrition rate over the 14 month period was 17.8%. Parents filled in the questionnaires separately. Biographical data about the parents, the child and circumstances surrounding the loss were gathered during an interview with the couple at the first measurement point after their loss.

Independent variables

Attachment was measured using the Adult Attachment Scale (AAS, Collins & Read, 1990). In line with contemporary agreement on the two dimension structure of attachment, two subscales anxiety and avoidance were used (Brennan, Clark, & Shaver, 1998). To construct these scales, we followed the item-structure by Hazan and Shaver (1987).² A confirmative factor analysis was conducted for both scales in which items that had factor loadings higher than .32 were selected. The anxious attachment scale consisted of 6 items, e.g. 'I often worry that my partner doesn't love me' and 'I find others are reluctant to get as close as I would like'. Cronbach's alpha is .61. The avoidance scale consisted of 5 items, e.g. 'People are never there when you need them' and 'I am somewhat uncomfortable being close to others'. Cronbach's alpha for this scale reached .60. High scores represent more insecure attachment.

Neuroticism was measured using the neuroticism-subscale of the Eysenck Personality Questionnaire-Revised Short Scale (Eysenck & Eysenck, 1991, Dutch version by Sanderman et al. 1995). This scale consists of 12 items, answered by yes or no. The subscale 'neuroticism' has high internal consistency, varying from .81 to .84.

Dependent variables

Grief reactions were measured with the Inventory of Complicated Grief (ICG, Prigerson, Maciejewski, Reynolds, Bierhals, et al., 1995b; Dutch version by Dijkstra et al., 2000). The ICG consists of 19 items covering psychological aspects of grief, e.g., 'I find it difficult to accept the death of our child' and 'I feel that it is unfair that I should live when our child died'. Answers are given on a 5-point scale ranging from 'never'(1) through 'sometimes'(3) to 'always'(5). In our study Cronbach's alpha was .90 to .92, and test-retest coefficients varied from .81 to .88.

Depression was measured using the subscale of the Symptom Checklist-90 (SCL-90, Derogatis, 1977; Dutch version by Arrindell & Ettema, 1986). The subscale depressive symptomatology consists of 16 items. Answers are given on a 5-point scale, ranging from 'not at all'(1) to 'very much'(5). In our study Cronbach's alpha was .94 and test-retest reliability was .86.

Control variables

Factors that were shared by parents were child's age, cause of death, unexpectedness of the loss (5-point scale), number of remaining children and subsequent pregnancy and/or baby 20 months after the death. Cause of death was categorised in three groups: stillbirth or neonatal death (0), illness or disorder (1), or traumatic death (SIDS, accident, suicide, homicide) (2). Individual factors were gender, education (6-point scale), employment (in hours), religious affiliation (non-religious vs. religious), and professional help-seeking.

Analysis

To deal with the complications associated with having to control for multiple predictors in a dependent structure, the data were analysed with multilevel regression analysis (Hox, 2002). A unique feature of multilevel analysis is that it works with a specific statistical model designed for nested data. In our data there is a nested structure captured by a three-level hierarchy. The three measurement moments in time are nested in one person, the father or mother. The measurements of the parents are dependent and are thereby nested in a couple. Therefore time since death is the lowest level (1st level), nested in the individual, the parent (2nd level) and the parents are nested in a couple (3rd level). Each independent variable varies only at one specific level. Time since the loss of the child varies only at the lowest level, the time level (1st level). The individual factors of the parent differ at the individual level (2nd level). The remaining factors are the same for the parents in a couple, but these factors do vary between the couples at the shared parent level (3rd level).

Statistical procedure. First, correlations between the attachment variables and neuroticism were calculated. Starting with the multilevel procedure, intra-class correlations were calculated to indicate the proportion of variance at one specific level [after individual and loss-related risk factors (control variables) were included in the model (see Wijngaards-de Meij et al., 2005)]. For each of the two dependent variables (grief and depression) a multilevel regression analysis was done with MLwiN (Rasbash et al., 2000). First, the two individual attachment variables (avoidant attachment and anxious attachment) were put in the multilevel regression model (Model 1). Second, the two attachment variables were taken out of the model and the variable 'neuroticism' was put in. In the third model both the attachment variables and the variable neuroticism were included. The amount of explained variance was calculated for each model. Multilevel analysis has advantages with respect to dealing with missing data. Problems associated with panel attrition (i.e., individuals who drop out of the study) are of relevance here. According to Hox (2002) multilevel analysis leads to unbiased estimates when the panel attrition follows a pattern defined as missing-at-random (for more information see Hox, 2002; Little et al., 2000).

Results

Correlations between all the relevant variables were calculated (Table 1). Avoidant attachment and anxious attachment each had fairly small correlations with neuroticism ($r=.32$ and $r=.28$), the correlation between avoidant and anxious attachment was also small ($r=.32$). When avoidant attachment and anxious attachment were included in the multilevel regression equation, both were significant ($p<.05$), as was the variable neuroticism ($p<.05$). When all three variables were included, the strength of the associations with grief and depression diminished, but all associations remained significant ($p<.05$).

Table 1. Correlations

| | anxious att. | neuroticism | grief | depression |
|---------------------|--------------|-------------|-------|------------|
| avoidant attachment | .32 | .32 | .28 | .34 |
| anxious attachment | 1.00 | .28 | .27 | .33 |
| neuroticism | | 1.00 | .38 | .51 |
| grief | | | 1.00 | .72 |

* all correlations are significant at the 0.01 level (2-tailed).

Table 2. Explained variance in grief and depression

| | grief | depression |
|------------------------------------|-------|------------|
| Model 1 attachment | 12.9% | 15.9% |
| Model 2 neuroticism | 18.0% | 24.4% |
| Model 3 attachment and neuroticism | 22.0% | 27.6% |

Grief

In the first model (Model 1) 12.9% of the variance was explained by the variables anxious and avoidant attachment (see Table 2). When these variables were taken out of the equation, and neuroticism was included, the variable neuroticism explained 18.0% of the unexplained variance (Model 2). When both attachment and neuroticism were included, in total 22.0% of variance was explained (Model 3). When the attachment variables were already included in the equation, adding neuroticism contributed another 9.1% resulting in a total of 22.0% for the full model (Model 3). When neuroticism was included in the model (Model 2) the addition of attachment added another 4.0%, resulting in the total of 22.0%.³

Depression

A total of 15.9% was explained by the variables anxious and avoidant attachment (Model 1). When these variables were taken out of the equation, and neuroticism was included, the variable neuroticism explained 24.4% of the unexplained variance. When both attachment and neuroticism were included, in total 27.6% of variance was explained. This implies that when the attachment variables were included first (Model 1), adding the variable neuroticism resulted in an increase of 11.7% culminating in a total of 27.6% (Model 3). By contrast, when neuroticism was put first in the equation (Model 2), adding the attachment variables increased the percentage of explained variance by 3.2% (Model 3).

Discussion

The first prediction was that both constructs, attachment insecurity and neuroticism, would have unique contributions to adjustment to bereavement. This was indeed found - both had a small but unique contribution to grief and depression. In line with previous research on personality traits and adult attachment styles / dimensions, we expected attachment dimensions to explain more variance than neuroticism. Contrary to these expectations, neuroticism, and not the adult attachment dimensions, explained a larger part of the variance.

There are good reasons to argue that attachment should be a better predictor than neuroticism on bereavement outcome. The adult attachment approach focuses

on the formation, maintenance and dissolution of interpersonal relationships, linking patterns of attachment to individual well-being. Therefore, one would expect it to be a more useful framework in understanding grief reactions. The theory of attachment security is directed at interpersonal processes. Furthermore, the division of insecurity of attachment into two dimensions leads to a more dynamic approach than the more uni-dimensional neuroticism-perspective: The attachment perspective lends itself to analyses of processes in relationships of individual differences and ill health by postulating underlying models of self and other.

Although the adult attachment dimensions made a unique contribution, they were not the best predictors of grief and depression. We noted that the reliabilities of the attachment scales were adequate, but not very high. It is possible that the unique contribution of attachment would have been greater, had these been better. In our view, however, the fact that attachment was not a better predictor is likely to have had more to do with the fact that our study was of parental, not spousal bereavement. The nature of a parent's attachment to a child is unique and different from that of romantic partners. As Shaver and Tancredy (2001) stated 'a parent who occupies the role of primary caregiver does not look to the child for protection, as safe haven or a secure base' (pp. 75-76). The concept of being (or expected to be) the safe haven is essential in the attachment relationship. In our study the relationship with the child was broken and not the relationship with the romantic partner (we studied couples, so partner relationships were intact in our study), while the adult attachment dimensions are focused on the cognitions and emotions related to the relationship with the romantic partner. Future research should examine whether grief reactions following loss of a partner relationship through death might more closely parallel the findings of Nofhle and Shaver (2006), where attachment theory was indeed a better predictor of loss of romantic partner. However, the power of neuroticism to predict outcome could also have to do with the fact that there is conceptual overlap between neuroticism and the dependent variables. Neuroticism is characterized as a proneness to experience unpleasant and disturbing emotions. According to McCrae and Costa (1999) there are six facets: anxiety, angry hostility, depression, self-consciousness, impulsiveness and vulnerability (though these facets were not measured in our study). It follows that, because there is conceptual overlap between neuroticism and psychological symptoms (e.g. depression, anxiety and grief), these symptoms are connected to neuroticism. This could be one other reason why neuroticism was a better predictor of depression and grief than the attachment dimensions.

A limitation of our study was that no pre-bereavement measures of personality or attachment could be taken. In prior research, although it is considered "trait-like" and reasonably stable, adult attachment style as well as personality traits have been shown to be susceptible to some change over time, for example, they may be

influenced by major life-events (for review on stability of attachment see Davila & Cobb, 2004, personality traits, see Roberts, Walton & Viechtbauer, 2006).

In our view, both attachment and personality theories have unique contributions to offer in understanding bereavement. Further examination of their relative impact across different types of loss (e.g. conjugal bereavement) is needed. Furthermore, it must be remembered that the power of the personality variable neuroticism in predicting outcome may be (partly) accounted for by conceptual overlap.

Notes

¹ The deceased children of the non-respondents turned out to be older than the children of the parents participating in the study ($t(378)=-5.29, p<.001$).

² The approach used by Collins c.s. (e.g., Collins, Ford, Guichard, & Allard, 2006) differs mainly in that her avoidant scale is constructed by avoidant and secure items (of the original Hazan and Shaver conceptualisation). However, the secure-items (which Collins included) were not included in constructing our avoidance scale, because the inclusion of the secure items did not improve the psychometric properties of our avoidance scale.

³ The possible interactions between time and neuroticism and time and attachment on grief and depression were calculated. There was only a small interaction between anxious attachment and time on grief and depression. The relationship between anxious attachment and the dependent variables became weaker over time.

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Parents grieving the loss of their child:

Interdependence in coping

Abstract

Objectives: A longitudinal study was conducted among bereaved parents, to examine the relationship between parents' own and their partners' ways of coping in terms of the constructs loss- and restoration orientation (coping strategies based on the bereavement-specific Dual Process Model (Stroebe & Schut, 1999), and psychological adjustment following the death of their child.

Method: 219 couples participated at 6, 13 and 20 months post-loss. Use of the Actor Partner Interdependence Model within multilevel regression analyses enabled assessment of both actor as well as partner effects, and permitted differentiating these effects according to the gender of the parent.

Results: Loss-orientation was predictive of negative psychological adjustment, while restoration orientation was related to better adjustment. Furthermore, high levels of restoration-oriented coping buffered the negative effect of high levels of loss-orientation on depression. In the interpersonal context, results indicated that for men, having a female partner high in restoration-oriented coping was related to positive adjustment.

Conclusion: In coping with the loss of their child, intrapersonal as well as interpersonal processes are relevant for the adjustment process of parents after the loss of their child.

Wijngaards-de Meij, L., Stroebe, M., Schut, H., Stroebe, W., van den Bout, J., van der Heijden, P.G.M., & Dijkstra, I. (in press). *British Journal of Clinical Psychology*.

Introduction

The loss of a child is a devastating event that severely disrupts the lives of those affected for years thereafter (for a review see Rubin & Malkinson, 2001). In Western society, the death of a child has generally been found to elicit more intense and complicated grief reactions than other types of bereavement (Sanders, 1989). Substantial psychological and physical health consequences for the parents have been established, including an increased risk of mortality (Li, Precht, Mortensen, & Olsen, 2003). The situation of parental bereavement can be complicated by the fact that not only have both parents lost their child, but the person to whom they would probably turn in stressful situations, may be too distressed to provide support. There may also be differences between partners in the ways they cope with their loss (e.g., in the need to talk about the deceased child) which may add to individual distress and marital disruption (Dijkstra & Stroebe, 1998).

The coping literature in general, and in bereavement specifically, has largely focused on individual aspects of coping without considering the interpersonal context in which grieving occurs. Research in other areas has begun to explore how differences in the way that partners cope affect their psychological well-being, for example how couples together face the chronic illness of one of the partners (Badr, 2004). Whereas the cognitive stress theory of Lazarus and Folkman (1984) takes an individualistic perspective in examining how individuals are affected by their own reactions to illness, research on close relationships emphasizes the interdependence between marital partners (e.g., Lewis, McBride, Pollak, Puleo, Butterfield & Emmons, 2006). From the interpersonal perspective, both spouses are not only affected by their own reactions but also by the way their partner copes. Accordingly, when the couple loses a child, it seems plausible that not only the coping style of the parent him or herself influences psychological adjustment after bereavement, but also the coping style of the partner may play a role in the adjustment process. Yet, to our knowledge, no research has been conducted to examine the coping style of both bereaved parents in combination, in relationship to the adjustment process after the loss of their child.

Research on gender differences in coping behaviours has shown that men and women approach problems differently. Tamres, Janicki and Helgson (2002) conducted a meta-analysis on gender differences in coping across several stressors (including bereavement), and found that women reported greater use of most coping strategies. For example, in the bereavement context women have been found to confront their emotions more than men, while men deal with this stressful life event by using more avoidant coping strategies (Stroebe, Stroebe, & Schut, 2001). Gender differences have also been found in interpersonal research on stressors in general (e.g., Badr, 2004). It is therefore important to examine whether individual and interpersonal effects are the same for men and women.

The limitations of general coping theories when applied to the bereavement area, such as the lack of specificity with respect to the bereavement context, led Stroebe and Schut (1999) to develop a stressor-specific model of coping with bereavement, namely the Dual Process Model (DPM). General coping theories, notably Cognitive Stress Theory (Lazarus & Folkman, 1984), do not accommodate for multiple stressors simultaneously, whereas in bereavement there is a need to oscillate between primary stressors to do with the loss itself, and secondary stressors to do with changes that occur as a consequence of the loss (for more details see Stroebe & Schut, 1999). Although it is not the purpose of our study to investigate the parameters of the DPM comprehensively, this model is nevertheless of importance to our study. The model postulates two coping strategies, loss-orientation and restoration-orientation (which are not equivalent to the emotion- and problem-focused coping distinction within Cognitive Stress Theory¹), attention to both of which is needed for favourable psychological adjustment after bereavement. According to the DPM, loss-orientation and restoration-orientation can be both problem-focused and/ or emotion-focused (in terms of CST). Loss-orientation refers to the concentration on, and dealing with, some aspect of the loss experience itself, most particularly, with respect to the deceased person. As such, although there is conceptual overlap, there is a clear distinction from grief symptomatology per se: loss orientation refers to a strategy of coping (handling of grief) while grief symptomatology refers to emotional reactions associated with bereavement. Restoration orientation refers to dealing with secondary sources of stress. This coping strategy incorporates focusing on changes which have come about as a result of the bereavement, and which need to be dealt with. Restoration-oriented coping was defined more specifically for this study of child loss as an active attempt to look toward the future and to rebuild one's life.

The main aim of this study was to clarify whether there is a relationship between the coping strategies of the parent and those of his or her partner, on the one hand, and the adjustment process of the parent, on the other hand. Furthermore, we wanted to ascertain whether these relationships differed by gender. Finally, although our study cannot be said to investigate all parameters of the DPM we wanted to establish whether loss-oriented coping and restoration-oriented coping had an extra effect on the psychological adjustment of the parent when studied in combination².

Method

Design

The design of the study was longitudinal, consisting of three points of measurement at 6, 13 and 20 months after the death of the child. An earlier report on this study described relationships between characteristics of the parent, the child,

circumstances relating to the death of the child, adult attachment dimensions and the adjustment process (see Wijngaards-de Meij et al., 2005, Wijngaards-de Meij et al., 2007).

The attrition rate was 17.8% over the 14 month period of the study. The biographical data about the parents, the child and circumstances surrounding the loss were gathered during an interview with the couple at the first measurement point after their loss. At all three moments in time, parents were asked to fill in a set of questionnaires separately.

Participants

In total 463 Dutch couples who had lost a child were contacted via obituary notices in local and national newspapers. Five and half months after the loss parents were sent a letter and were additionally called by phone to inquire about participating in the study. The study was approved by the Research Institute of Psychology and Health's ethical committee at Utrecht University. Informed consent procedures were utilized. Bereaved parents who were grandparents (i.e., those parents whose deceased child was a parent him/herself) were not included in this investigation, given that they are likely to experience additional difficulties. Single parents were also excluded, because the study was focussed on individual and partner predictors of grief. In total, 219 parent couples (47%) agreed to participate. The parents who participated ranged in age from 26 to 68 years ($M = 42.2$, $SD = 9.1$) and their deceased child's age ranged from stillborn to 29 years with a mean age of 10.2 years ($SD = 9.8$). A total of 68.7% of the deceased children were boys. The causes of death varied from neonatal death or stillborn (16.3%), through illness or disorder (47.7%), to accident, SIDS, suicide or homicide (36.1%).

Measurement instruments

Independent variables

Coping with the loss was measured using a newly constructed coping list, the Dual Coping Inventory (DCI). This measure, which was theoretically based on the DPM, included two scales: Loss-orientated coping and Restoration-oriented coping. The two-factor model of the DCI (with the factors loss-orientation and restoration-orientation) was tested with confirmative factor analyses, for all three moments in time, using AMOS 5.0 (Arbuckle, 2003). All three analyses reported a good fit (NFI from .984 to .988, CFI from .991 to .994, RMSEA from .046 to .061). The loss-oriented coping scale consisted of three items: 'I am occupied with the loss of my child', (2) 'I dwell on my sorrow', (3) 'I think of our deceased child' (mean, range 1 - 5). The restoration-oriented coping scales included four items: (1) 'I direct my thoughts toward the future', (2) 'Despite everything, I am trying to make the best of it', (3) 'I

try to look ahead', (4) 'I am trying to go on with my life' (mean, range 1 - 5). Answers are given on a five-point scale, ranging from 'not at all'(1) to 'very much'(5). Measurement was made at three moments in time (T1= 6 months, T2=13 months, T3=20 months after the loss). Over time, Cronbach's alpha ranged from .77 to .82 for Loss-orientation and from .84 to .86 for Restoration-orientation.

Dependent variables

Depression was measured using the subscale of the Symptom Checklist-90 (SCL-90, Derogatis, 1977; Dutch translation by Arrindell & Ettema, 1986). The subscale depressive symptomatology consists of 16 items. Answers are given on a five-point scale, ranging from 'not at all'(1) to 'very much'(5). In our study Cronbach's alpha ranged from .92 to .94.

Grief reactions were measured using the Inventory of Complicated Grief (ICG, Prigerson, Maciejewski, Reynolds, Bierhals, et al., 1995; Dutch version by Dijkstra, Schut, Stroebe, Stroebe, & van den Bout, 2000). The ICG consists of 19 items covering psychological aspects of grief, e.g., 'I find it difficult to accept the death of our child' and 'I feel that it is unfair that I should live when our child died'. The answers are given on a five-point scale ranging from 'never'(1) through 'sometimes'(3) to 'always'(5). In our study Cronbach's alpha ranged from .90 to .92.

The dependent variables were transformed to a scale 0-100 to facilitate comparison between the predictors and between the predictive value for depression and grief.

Analysis and Statistical Procedure

To analyse the individual parent effect, the partner effect and possible interactions, we used the Actor Partner Interdependence Model (APIM) (Kashy & Kenny, 2000; Kenny, Mannetti, Pierro, Livi, & Kashy, 2002). The APIM is appropriate when the dyad (i.e., the marital couple) is the unit of analysis and tests need to be performed both within and between dyads (Kenny, 1996). Variables are assessed for both the actor and his or her marital partner. Use of the APIM then allows one to estimate not only whether an actor's own attributes predict his or her responses but also whether the attributes of the actor's partner also predict the actor's responses, while the impact of the actor's own attributes is controlled. In our study, the actor effect estimates the influence that an actor's own score on the independent variable (e.g., restoration-oriented coping) has on that person's outcome measure (e.g., depression), and the partner effect estimates the influence that the partner scores on the independent variable have on the actor's outcome (Kashy & Kenny, 2000, Kenny, Mannetti, Pierro, Livi, & Kashy, 2002). Not only can the actor and the partner effects of variables be tested in this model, but also several interactions involving the actor and/ or partner variables.

The Actor Partner Interdependence Model was tested, as recommended by Campbell and Kashy (2002), within a multilevel regression analysis. Besides being suitable for testing the APIM, multilevel analyses are appropriate for having several predictors in a dependent structure (Hox, 2002). A unique feature of multilevel analysis is that it works with a specific statistical model designed for nested data. In our data there is a nested structure captured by a three-level hierarchy. The three measurement moments in time are nested in one person, the father or mother. The measurements of the father and mother are dependent and are thereby nested in a couple. Therefore time since death is the lowest level (1st level), nested in the individual (2nd level). The parents (2nd level) are nested in a couple (3rd level). Each independent variable varies only at one specific level. Time since the loss of the child varies only at the lowest level, the time level (1st level). The individual factors of the two parents differ at the individual level (2nd level). The remaining factors are the same for the parents in a couple, but these factors do vary between the couples at the couple level (3rd level).

When there are interactions included in the regression analyses, the standardised regression weights should be calculated by standardising the independent and dependent variables (Aiken & West, 1991). Therefore we standardised the variables grief, depression, and loss-oriented coping and the restoration oriented coping of both parents. In the Graphs the unstandardised variables were used to facilitate interpretation. The standard R^2 (explained variance) cannot be calculated within multilevel regression analyses. We therefore used the procedures that are most common in multilevel research to estimate the explained variance (Hox, 2002). For each of the two dependent variables (grief and depression) a multilevel regression analysis was performed with MLwiN (Rasbash et al., 2000).

Results

Descriptives

In general, as can be seen in Table 1, husbands were less loss-oriented than wives (main effect gender, $F(1, 352) = 47.09, p < .05$), and both men and women became less loss-oriented through time (main effect time, $F(2, 704) = 29.55, p < .05$). The restoration-orientation of men was high in the beginning, the restoration-orientation of women started lower but rose slightly through time (different linear trends for time by gender, $F(1, 345) = 4.38, p < .05$).

The correlation (based on the average of the variables for all three measurement moments) between the two coping strategies was quite small ($-.23$, see Table 2). Loss-orientation had a moderately high correlation with both grief and depression (resp. $.57$ and $.47$). Restoration-orientated coping correlated negatively with both grief and depression (resp. $-.48$ and $-.45$). There were no significant differences in the

Table 1. Level of grief, depression and coping at the 3 time points

| | | T1 | | T2 | | T3 | |
|----------------|-------|-------|-------|-------|-------|-------|-------|
| | | M | Sd. | M | Sd. | M | Sd. |
| Grief | men | 40.87 | 18.90 | 39.80 | 18.01 | 36.93 | 18.33 |
| | women | 49.73 | 19.76 | 46.23 | 18.76 | 45.58 | 16.89 |
| Depression | men | 18.53 | 16.63 | 16.98 | 16.39 | 15.61 | 16.10 |
| | women | 31.84 | 22.24 | 29.67 | 21.36 | 26.79 | 19.52 |
| Coping | | | | | | | |
| Loss-oriented | men | 3.41 | 0.91 | 3.40 | 0.86 | 3.27 | 0.87 |
| | women | 4.07 | 0.73 | 3.91 | 0.75 | 3.74 | 0.75 |
| Rest.-oriented | men | 3.70 | 0.89 | 3.59 | 0.81 | 3.63 | 0.83 |
| | women | 3.49 | 0.94 | 3.52 | 0.93 | 3.61 | 0.90 |

Table 2. Correlations

| | Loss-oriented | Rest.-oriented | Grief |
|-----------------------------|---------------|----------------|-------|
| Loss-oriented coping | 1.00 | | |
| Restoration-oriented coping | -.23* | 1.00 | |
| Grief | .57* | -.48* | 1.00 |
| Depression | .47* | -.45* | .72* |

* correlation is significant at the 0.01 level

correlations between men and women, nor did the correlations differ significantly through time.

Actor Partner Analyses: Depression

In the first Model beside the variables time and gender, the coping strategies of the actor were introduced and, to test whether coping effects differed for men and women, interactions between gender and the coping styles were introduced (Table 3). Women reported more depressive symptoms than men and through time the level of depression decreased for both. Both the coping styles of the actor were predictors of own depression, higher levels of loss-orientation were related to higher levels of depression while higher levels of restoration-orientation were related to lower levels of depression. Of the interactions between the gender and the coping styles of the actor, only the interaction between gender and restoration-orientation was

significant. Interaction effects have to be interpreted in combination with the main effects of gender and the coping style. The interaction indicated that the relationship between restoration-oriented coping and depression was different for men and women. The effect of restoration-orientation on depression was even stronger for women: the combination of being a women and being high in restoration-orientation was associated with lower levels of depression.

In Model 2, the coping strategies of the partner as well as the interactions between gender and the coping styles of the partner were introduced. There was a main effect of restoration-oriented coping and an interaction effect of restoration-oriented coping of the partner with gender. For men the effect of the restoration-orientated coping of the partner, which in this analysis can be seen in the main effect ($\beta=-0.10$, $z = 2.98$, $p<.05$), was that the more restoration-oriented his wife was, the lower the depression of the man. For women, the main effect has to be viewed in combination with the interaction between restoration-oriented coping of the partner with gender ($\beta=0.13$) to see that the effect of partner restoration for the women was slightly the opposite ($\beta= -.10+0.13=.03$). Single slope analysis (Aiken & West, 1991) revealed that this effect for women was not significant ($z = 0.91$, $p>.05$). So when the husband had a wife who was high in restoration-orientation, he was less depressed (see Graph 1). For loss orientation, none of the partner effects, nor any interactions between gender and the actor or gender and partner coping were significant.

Graph 1

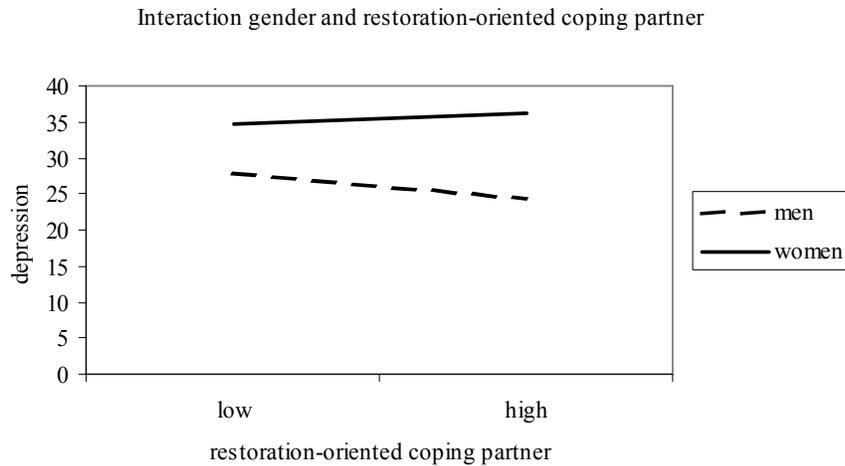


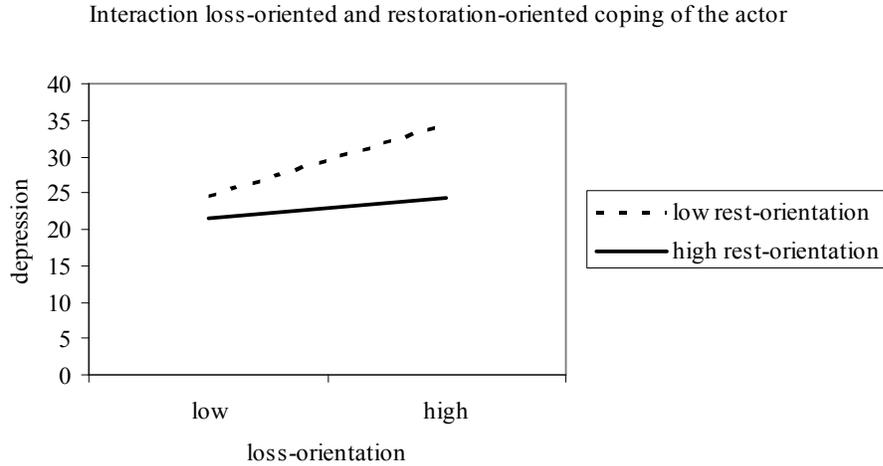
Table 3 Depression predicted by coping styles of the participant, the coping styles of the partner and interactions

| | Model 1 | | | Model 2 | | | Model 3 | | |
|---------------------------------------|---------------------------|------|-------|-------------|------|-------|------------|------|-------|
| | beta | z | (p) | beta | z | (p) | beta | z | (p) |
| Time | 0.06* | 3.33 | (.00) | -0.05* | 2.72 | (.00) | -0.05* | 3.01 | (.00) |
| Gender (0=man, 1=woman) | 0.47* | 7.49 | (.00) | 0.47* | 7.47 | (.00) | 0.48* | 7.66 | (.00) |
| Actor | | | | | | | | | |
| Loss-oriented coping | 0.17* | 5.22 | (.00) | 0.15* | 4.73 | (.00) | 0.17* | 5.22 | (.00) |
| Restoration-oriented coping | -0.17* | 5.48 | (.00) | -0.15* | 4.90 | (.00) | -0.18* | 5.71 | (.00) |
| Interaction actor x gender | | | | | | | | | |
| Gender x Loss-oriented coping | 0.05 | 1.22 | (.22) | 0.08 | 1.73 | (.08) | 0.07 | 1.44 | (.16) |
| Gender x Restoration-oriented coping | -0.19* | 4.32 | (.00) | -0.22* | 4.88 | (.00) | -0.16* | 3.30 | (.00) |
| Partner | | | | | | | | | |
| Loss-oriented coping | | | | 0.02 | 0.71 | (.48) | 0.02 | 0.67 | (.50) |
| Restoration-oriented coping | | | | -0.10* | 2.98 | (.00) | -0.09* | 2.90 | (.00) |
| Interaction partner x gender | | | | | | | | | |
| Gender x Loss-oriented coping | | | | -0.04 | 0.77 | (.44) | -0.03 | 0.58 | (.56) |
| Gender x Restoration-oriented coping | | | | 0.13* | 2.88 | (.00) | 0.12* | 2.70 | (.00) |
| Interaction actor coping | | | | | | | | | |
| Actor Loss x Actor Restoration coping | | | | | | | -0.08* | 4.00 | (.00) |
| R ² | 30.0% | | | 31.6% | | | 32.9% | | |
| Deviance | 2092.53 | | | 1956.22 | | | 1940.44 | | |
| Change in deviance ^a (df) | 247.05 ^b * (4) | | | 136.31* (4) | | | 15.78* (1) | | |

^a Change of deviance follows a χ^2 -distribution. ^b this is the change in deviance between the basic model with the independent variables time and gender, and Model 1. * p<.05

In Model 3 the interaction between loss-oriented coping and restoration-oriented coping of the actor was tested to explore whether the effect of loss-orientation depended on the level of restoration-orientation. This interaction was significant and showed that the positive relationship between loss-oriented coping and depression (high loss-orientation related to high depression) was true for parents low in restoration-orientation, but this relationship was relatively weak for parents high in restoration-orientation (Graph 2). In other words, restoration-orientation had a buffering effect on the effect of loss-orientation.

Graph 2



Actor Partner Analyses: Grief

For grief the models were built in the same order. In Model 1, there were main effects for time and gender; through time the grief symptoms decreased and women had higher levels of grief than men. As for depression, the coping styles of the actor were related to the levels of grief, higher levels of loss-orientation were related to higher levels of grief and higher levels of restoration-orientation were related to lower levels of grief. The interactions between gender and the coping styles were introduced, to test whether there were different relationships between coping and grief for men and women. There was no significant interaction, which means that the main effects of the coping styles of the actor were the same for men and women. In Model 2, it was shown that the restoration-orientation of the partner was also related to the grief of the actor. The restoration-orientation of the partner was connected to

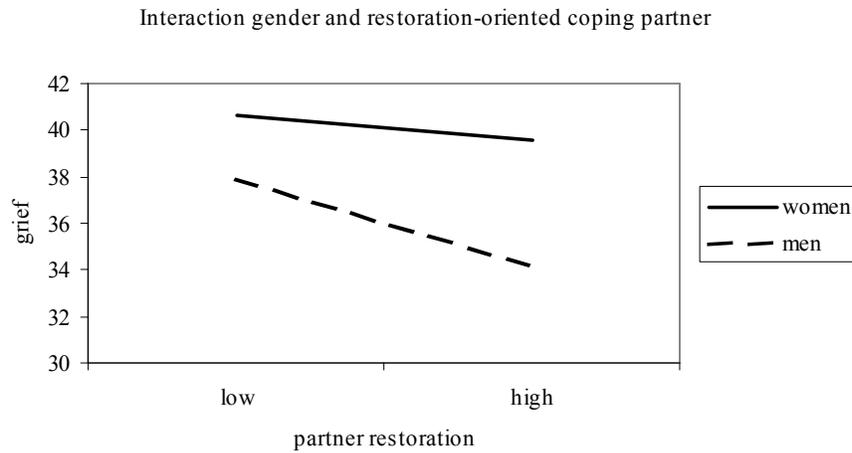
Table 4 Grief predicted by coping styles of the participant, the coping styles of the partner and interactions

| | Model 1 | | | Model 2 | | | Model 3 | | |
|---------------------------------------|---------------------------|-------|-------|------------|-------|-------|----------|-------|-------|
| | beta | z | (p) | beta | z | (p) | beta | z | (p) |
| Time | -0.07* | 4.41 | (.00) | -0.07* | 4.13 | (.00) | -0.07* | 4.25 | (.00) |
| Gender (0=man, 1=woman) | 0.22* | 4.20 | (.00) | 0.22* | 4.19 | (.00) | 0.22* | 4.24 | (.00) |
| Actor | | | | | | | | | |
| Loss-oriented coping | 0.30* | 10.37 | (.00) | 0.31* | 10.33 | (.00) | 0.32* | 10.51 | (.00) |
| Restoration-oriented coping | -0.18* | 6.36 | (.00) | -0.17* | 5.68 | (.00) | -0.18* | 5.93 | (.00) |
| Interaction actor x gender | | | | | | | | | |
| Gender x Loss-oriented coping | -0.04 | 0.92 | (.36) | -0.04 | 0.94 | (.34) | -0.05 | 1.10 | (.28) |
| Gender x Restoration-oriented coping | -0.05 | 1.37 | (.17) | -0.07 | 1.73 | (.08) | -0.05 | 1.07 | (.28) |
| Partner | | | | | | | | | |
| Loss-oriented coping | | | | 0.01 | 0.44 | (.66) | 0.01 | 0.42 | (.68) |
| Restoration-oriented coping | | | | -0.10* | 3.41 | (.00) | -0.10* | 3.37 | (.00) |
| Interaction partner x gender | | | | | | | | | |
| Gender x Loss-oriented coping | | | | 0.04 | 0.90 | (.38) | 0.04 | 1.01 | (.32) |
| Gender x Restoration-oriented coping | | | | 0.08* | 1.99 | (.04) | 0.07 | 1.71 | (.09) |
| Interaction actor coping | | | | | | | | | |
| Actor Loss x Actor Restoration coping | | | | | | | -0.03 | 1.78 | (.08) |
| R ² | 36.8% | | | 41.1% | | | 41.5% | | |
| Deviance | 1800.58 | | | 1707.32 | | | 1704.21 | | |
| Change in deviance ^a (df) | 247.05 ^b * (4) | | | 93.26* (4) | | | 3.11 (1) | | |

^a Change of deviance follows a χ^2 -distribution. ^b this is the change in deviance between the basic model with the independent variables time and gender, and Model 1. * p<.05

the level of grief of the actor, but this was again, as in depression, gender specific. For a husband it was helpful if his wife had high levels of restoration-orientation, because this was associated with lower levels of grief in the man ($\beta=-0.10$, $z = 3.41, p<.05$). A single slope analysis revealed that for a woman, the level of restoration-orientation of her husband was unrelated to her level of grief ($\beta = -0.10 + .07 = -.03$, $z = 0.43, p>.05$). In Model 3 the interaction between loss-oriented coping and restoration-oriented coping of the actor was introduced, but this was not significant. For grief Model 2 is the final Model.

Graph 3



Discussion

Our investigation has demonstrated the importance of studying grief and depression as an intrapersonal as well as an interpersonal process². In contrast to the few prior studies on coping strategies in bereaved parents (e.g., Murphy, Johnson, Chung, & Lohan, 2003; Anderson, Marwit, Vanderberg, & Chibnall, 2005), we used the Actor Partner Interdependence Model to analyse our dyadic data. This relatively new method is especially designed and the most appropriate for studying partner effects in a nested model (Kenny, Kashy & Cook, 2006). This method allowed us to assess the relationship between the actors' own coping strategies and their psychological adjustment as well as the possible effect of the coping strategy of their partners on the actors' adjustment. In addition, our study focused on bereavement specific coping strategies instead of more general forms used in prior research.

Our findings show that the adjustment process for men is not only related to their own coping strategies, but also to the coping strategy of their wife. The more his wife was oriented towards rebuilding their lives after the loss (restoration-oriented coping), the lower were the levels of depression and grief of the husband. Because men were generally higher in restoration-orientation than women, this implies that when a woman engaged in a strategy that was generally more often used by men (i.e. coping in a way more similar to the men) this was beneficial for the husband. For women the way of coping of their husbands was neither related to their depression nor their grief scores. This could be due to the fact that women were more loss-oriented. Loss-oriented coping does not need to involve the partner, because feelings and action are centred around the relation between the parent and the child. In contrast, partner involvement might be important in restoration-oriented coping. It might be difficult for a couple to rebuild their lives after a loss, if one of the partners remains preoccupied with the loss and unmotivated to look toward the future.

However, being high in loss-orientation is not necessarily associated with high levels of depression, as long as the loss-orientation is accompanied by high levels of restoration-orientation. Although we could not assess whether individuals oscillated between these two coping strategies, these results are partly in line with the DPM reasoning that the combination of both coping strategies is beneficial for the adjustment process. One finding that appears to be inconsistent with the DPM is that bereaved parents who were high on restoration-orientation and low on loss-orientation, had low scores on depression. A potential explanation for this pattern could be that these parents had already gone through a period of severe loss-orientation and were now focusing more on moving on with their lives. Another unexpected pattern is that the interaction of restoration-oriented and loss-oriented coping was not found for grief symptomatology (although a trend was found). It is

not easy to explain this finding. These results suggest the need for more research investigating parameters of the DPM.

There are some limitations to our study. First, because no valid scales of specific bereavement coping behaviour were available, we had to develop a new measure. However, our scales are theoretically based on the Dual Process Model (Stroebe & Schut, 1999) and had good psychometric properties. A further concern is a potential conceptual overlap between loss-orientated coping and grief symptoms. For the purpose of examining interpersonal influences on individual grieving this is, however, less of a problem (e.g., because we look at the relationship of the loss-orientation of one parent with the grief of the partner).

The results of our study also have potentially important clinical implications. Within the couple that experienced a bereavement, the restoration-orientation of the women appears to be a crucial factor in the adjustment process, because women high on restoration-oriented coping were doing better themselves ('compensating' for being high in loss-orientation) and had partners who were less depressed. An important next step would be to identify the processes underlying high restoration-orientation in women. Although our study was done within the bereavement area, future research is needed to examine whether these connections are also found for other stressful situations.

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Chapter 7

Discussion

The aim of this thesis was to identify factors that can predict which parents will be at particularly elevated risk for problematic adjustment after the loss of their child. As described in the Introduction of this thesis, three points of departure (objective characteristics, intra-psychological and interpersonal factors) were selected to gain more understanding of the psychological adjustment process of the parents who had lost their child. The choice of using multiple points of views has been fruitful: the psychological adjustment of the bereaved parents was indeed related to different kinds of factors. First, a number of objective characteristics of the parent, child, and the death, and circumstances surrounding the death were important predictors in the levels of grief and depression of the parents. Second, the intra-psychological factors, insecure attachment, neuroticism, and coping strategies, were also related to the levels of symptomatology. Finally, the interpersonal approach has shown an interesting new phenomenon.

In Box 1 the main results of Chapter 2 to 6 are summarized. In the next section, the theoretical implications of the results of the study are discussed, followed by the clinical implications and methodological implications. This chapter ends with a discussion of the limitations of our study and recommendations for future research.

BOX 1: Summary of the results of Chapter 2 to 6

In Chapter 2 the central question was: can risk factors for bereaved parents be identified for (complicated) grief and depression? The results showed that grief was predicted both by factors shared by parents as well as by individual factors, while, in contrast, depression was predicted merely by individual factors. For grief the predictors were age of the child, cause and (un)expectedness of the death, number of children remaining in the family, and the (individual) factors education and numbers of hours at work. Both grief and depression were related to gender (females reported more symptoms), and depression was in addition predicted by religiosity.

In Chapter 3 the aim was to find which factors in the days surrounding the death of the child were related to the psychological aftermath of the bereaved parents. The results showed that presenting the body of the child for viewing at home and having said goodbye, were important in predicting the level of grief of the parents, while neither the sort of funeral, nor caring for the body of the child by the parents themselves was related to the adjustment process.

In Chapter 4 the predictions made by attachment theory were tested. The results only partly supported the predictions: anxious attachment was indeed related to more grief and depression, but surprisingly, avoidant attachment was also positively related to more grief and depression. Furthermore, marital satisfaction mediated the relationship between anxious attachment and symptomatology.

In Chapter 5 the relative contributions of the insecure attachment strategies and those of the personality factor neuroticism were compared. Both made a unique contribution to the prediction of grief and depression, but in contrast to the expectations, the part predicted by the factor neuroticism was relatively larger.

In Chapter 6 we turned to the interpersonal approach and investigated whether the adjustment process of the parent was predicted not only by their own way of coping, but also by the coping of their partner. High loss-oriented coping was related to high symptomatology, and high restoration-orientation was related to better adjustment. In addition, the negative effect of high loss orientation on depression was reduced when the parents was also high in restoration oriented coping. Regarding the partner effects, the results showed that fathers had less grief and depression when the mother's restoration oriented coping was higher.

Theoretical implications

The studies in this thesis have implications pertaining to several theoretical issues. Since attachment theory was an important theory in the study, themes deriving from this perspective will be discussed first, followed by several other theoretically relevant themes.

Attachment theory

Attachment theory had an important place in our attempt to gain more insight into individual differences in parental adjustment following the loss of a child. And our findings demonstrate that the attachment perspective is an important framework for understanding grief and loss. At the same time the results of the study challenge some basic hypotheses from attachment theory, as well as results from prior studies on attachment and grief. In Chapter 4 the association that was found between high anxious attachment and more grief and depression corresponded with the results of previous studies on bereavement (e.g., Wayment & Vierthaler, 2002): When the attachment object is unavailable, the anxiously attached individual will turn its attention to searching. Due to the failure to reestablish proximity in case of loss, the attachment system is kept activated and will lead to high levels of distress. More surprisingly, and in contrast with previous research (e.g., Field & Sundin, 2001; Fraley & Bonanno, 2004; Wayment & Vierthaler, 2002), avoidant attachment was also associated with an increase in emotional problems, and not with a “resilient pattern of symptoms” as stated by Fraley and Bonanno (p.887, 2004). Fraley and Bonanno found that bereaved with a fearful attachment style (i.e. persons high in both anxious and avoidant attachment) had high levels of grief, while persons with a dismissive attachment style (only high on avoidant attachment) were low on depression. They argued that fearful adults were high in symptomatology because of the strategy activated by their anxious attachment, while dismissing adults habitually redirect attention away from experiences that may threaten their sense of independence or self-worth. By organizing their attention in this manner, they would be less likely to experience the intense emotions that often accompany loss. In contrast with this reasoning, but in line with statements of Mikulincer, Dolev and Shaver (2004), we argued that our contrasting findings on the avoidantly attached might be due to the so-called ‘rebound’ effect: While avoidant strategies would be expected to be useful in situations with a low amount of stress, during extended, highly stressful experiences, these strategies prove useless. In our research, this pattern might occur because losing a child is a prolonged and extremely stressful experience (even more so than other types of bereavement), which could result in a collapse of the deactivating system of the avoidantly attached, leading to more emotional problems.

Thus: Results from Chapter 4 challenge a basic assumption of attachment theory, namely that avoidantly attached individuals confronted with the loss of a loved one would not show high levels of symptoms after the loss of a loved one. The crucial factor, in our view, is the fact that the object of this study was the loss of a child. So, although avoidant attachment has not been shown to be a risk factor in conjugal bereavement, avoidant attachment can be regarded as a risk factor that is associated to the loss of a child.

In Chapter 5, the results were also to some extent contrary to expectations: Although attachment theory explained a unique and significant part of the variance of grief and depression, the personality trait neuroticism explained a larger part. A possible explanation of these results is that the relationship with the child was broken instead of the relationship with a romantic partner. The nature of a parent's attachment to a child is unique and different from that of romantic partners. Because at least the young child cannot function as a safe haven, which is an essential part of an attachment relation, the parent-to-child bond is not considered a real attachment bond by some attachment theorists (e.g., Shaver & Tancredy, 2001). So, while in parental bereavement attachment style is not so strongly related to the psychological well-being of the parent as expected (cf. Noffle & Shaver, 2006), in conjugal bereavement attachment might indeed be the better predictor (above neuroticism), because in that situation the attachment bond between the partners is broken.

When the above results on attachment theory are combined, the conclusion may be drawn that it is essential to view some of the processes postulated by attachment theory in the light of the specific object of loss. The situation of child loss is probably characterised by (at least) two kinds of losses, the loss of the child and the (possible) loss of the relationship with the partner, as it was before the loss. As a result, there are two ways in which the attachment system may be activated, resulting in maladaptive processes in the insecurely attached. In this light, it might be that not all processes postulated by attachment theory hold true for the special case of child loss – several processes specified by this theory are challenged by the results of this study on child loss. Obviously the underlying processes of these attachment processes need further study.

Dual Process Model of Coping with Bereavement

Although we have clearly stated that the study reported in Chapter 6 did not investigate the Dual Process Model of Coping with Bereavement (DPM, Stroebe & Schut, 1999), some of the results can be considered within this framework. The DPM postulates a dynamic process of oscillation between two coping strategies, loss-oriented and restoration-oriented coping, and assumes this to be crucial for positive adjustment to bereavement. Our findings showed that parents who were high in loss-orientation and also had high levels of restoration-orientation, had indeed lower

levels of depression than parents who were only high in loss-orientation. Although it could not be assessed whether individuals actually oscillated between these two coping strategies, the results are in line with the DPM, suggesting that the combination of both coping strategies is better than only being high in loss-orientation. A pattern that does not at first sight appear to fit the model is that bereaved parents who were high on restoration-orientation and low on loss-orientation, had low scores on depression. However, a possible explanation could be that these parents had already gone through a period of severe loss-orientation and were now focusing more on moving on with their lives. Therefore, these results suggest the need for more research investigating parameters of the DPM.

Grief versus Depression

In the aftermath of loss, grief and depression are symptoms that reflect an important part of the symptomatology experienced by the bereaved. Previous research on bereavement frequently used depression measures as an indicator of grief reactions. Although prior research has started to show that symptoms of grieving (e.g., yearning, anger) form a separate cluster from those associated with depression (Prigerson, Frank, Kasl, Reynolds, Anderson, et al., 1995; Boelen, & van den Bout, 2005), our results shed new light on variables that differentiate in predicting the syndromes of grief versus depression. First, the structure of our (multilevel) analyses enabled us to show that grief symptoms within a couple were more similar than grief symptoms between couples, while the levels of depression had more individual variability. Second, combining the results of the studies in Chapter 2 to 6, a picture emerges of two constructs that are partly differentiated by factors, but also partly predicted by the same variables. Factors that were important in predicting grief, but not depression symptoms, were the bereavement-related factors. By contrast, the intra-psychological characteristics (e.g., attachment style) did not differentiate in predicting grief and depression.

Related to this issue is the scientific debate on whether complicated grief is a distinct syndrome or mental disorder, separate from depression, and whether complicated grief should be registered as such in the next edition of the DSM (see also Prigerson, et al., 1995; Boelen, 2005; Stroebe, van Son, Stroebe, Kleber, Schut, et al., 2000). The results on the differential predictors of depression and grief underline the importance of establishing grief and possibly complicated grief as a distinct syndrome from depression.

Concluding remarks

Although attachment theory has been an important theory in the research reported in this thesis, in Chapter 2, while interpreting the results on risk factors for grief and depression, the conclusion was drawn that - on a theoretical level - no

single theory of bereavement was able to explain the patterns of our findings. For example, the results on the relation between the number of remaining children and grief could be explained in terms of evolutionary psychology (Archer, 1999), while the results on the relationship between the unexpectedness of the loss and grief was to our understanding indeed best understood in view of general attachment theory (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969/1982). Additionally, other results could be explained by both theories (for details see Chapter 2). In Chapter 5, a new variable was introduced, the personality factor neuroticism. In the comparison of the relative contribution of adult attachment theory in comparison with the contribution of the personality factor neuroticism, it was shown that, in fact, insecure attachment and neuroticism both explain unique parts in grief and depression.

In conclusion: Beside the fact that attachment theory was shown to be an important framework for understanding the psychological adjustment of the bereaved parents, in this thesis findings strongly suggest that the most productive interpretation of bereavement research is based on multiple theories.

Clinical implications

As the identification of risk factors was a major aim of our study, in this section, the clinical implications with respect to the risk factors will first be discussed, since this may guide the selection of bereaved individuals at high risk who are most likely to profit from intervention. Following this, some guidelines for parents in the early days of bereavement are suggested. Finally, the results on the difference between grief and depression are considered in the light of clinical implications for treating the bereaved parent, that is, when treatment is indicated.

Risk factors

With respect to future research on and preventive treatment of the parents who need help with the adjustment to the loss of their child, it is important to have more knowledge on risk factors for both grief and depression. In their overview of the efficacy of bereavement interventions, Schut, Stroebe, van den Bout, and Terheggen (2001) concluded that secondary preventive interventions (i.e. the interventions that are targeted at bereaved persons considered to be at high risk) show promising results. In discussing research on secondary preventive interventions for bereaved parents, they concluded that interventions where the mere fact of loss of a child (in contrast to loss of spouse or partner) was the indicator of risk, did not show positive results (e.g., Lake, Johnson, Murphy, & Knuppel, 1987). But the study of Murphy, Johnson, Cain, Gupta, Dimond et al. (1998) showed that when a risk group was identified within the group of bereaved parents (in this case an intervention was

offered to parents who lost their child to a violent cause), positive results for women who were high in grief symptomatology were shown. Therefore they concluded that there is a need to further differentiate within the group of bereaved parents, since selecting bereaved parents as participants by screening for risk level raises the chances of the intervention leading to positive results.

As discussed in detail in the previous chapters, the limited research on the identification of risk factors for bereaved parents had some serious methodological flaws. Small samples, a restricted number of predictors and inadequate statistical techniques led to incomplete information on factors that could be used to differentiate within this vulnerable group of bereaved parents. As can be seen in Box 1, in our study several risk factors for worse adjustment have been established: objective factors, intra-psychological factors and an interpersonal factor. For grief, a number of risk factors were unique. These were mainly bereavement-related factors (which are the same for parents in the couple): parents who had lost their child unexpectedly, and/ or through an accident or violent cause were experiencing higher levels of grief. Having no children remaining in the family was an additional risk factor, as was the age of the deceased child (younger and older age being associated with less grief than among parents of the “middle-age” children). Of the individual factors, being female¹, having a low level of education and a small number of hours at work were related to more grief symptoms in the parent. Furthermore, some of the circumstances during the first days after the loss were important. Parents who had the body of their child presented for viewing at home had less grief, as did parents who felt they had said goodbye to their child. When the situation of the parents was characterised by several of these risk characteristics, they could be considered at particularly high risk of having very intense grief symptoms.

In addition to the risk factors for grief alone mentioned above, both grief and depression could be predicted from a number of risk factors: insecurely attached parents were at risk, parents higher in neuroticism and parents who were high in loss-orientation had worse adjustment. Together, these factors can be used to derive a (preliminary) profile of parents who are at particularly high risk for high scores on grief and depression. Although all of these factors differentiate within this group of bereaved parents, in practice not all of these factors are easily accessible indicators. To select parents at risk for high levels of grief, the objective factors of the parents, child and the death are probably factors that are more easily assessed than the others. For example, a risk group could be selected on the basis of gender, cause of death and age of the child: women who had lost a teenage child through a violent or accidental death would come under consideration here. Using the objective factors seems more feasible in practice than selecting parents on a psychological factor such as an insecure attachment style. Future studies should be directed toward examining the necessity and functionality of (preventive) treatment for the parents at high risk.

Guidelines for the early days around the loss

In the early days after the child has died, it is hard to support the parents in the decisions that have to be made involving the procedures around the death. Even though the relevance of the decisions depends on the situation of the loss, the results of Chapter 3 may offer some guidelines for advice. Two topics were shown to be related to the adjustment of the parent. First, parents who presented the body of their child for viewing at home had less grief during the two years following the loss. However, caution is needed in interpreting this relationship: Although these findings suggest that it is beneficial to present the body for viewing at home, this might not be true for all parents. In our study the parents made their own decision, so from the results it cannot be deduced that the procedure of presenting the body at home would also have been beneficial for parents who did not to do it. This is a finding that is most likely to be culture specific. The second variable related to adjustment was whether the parents felt they had said goodbye to their child. These results are in line with findings in general bereavement research showing that saying goodbye is beneficial (Gamino, Sewell, & Easterling, 2000; Schut, de Keijser, van den Bout, & Dijkhuis, 1991). If parents had the feeling they had said goodbye, they had less grief symptoms in the aftermath of the loss. In the process of grief it might be recommended to the parents to find their own way to say goodbye to their child. If there was no possibility to do so before the death of the child, after the loss parents might be encouraged to find a symbolic way to say farewell to their deceased child.

It is also important to note that some decisions that had to be made by the parents were not related to their psychological adjustment. Choices that may have been hard for the parents to make, such as whether to care for the body of their child themselves, or whether to have their child cremated or buried, appeared to be unrelated to the levels of grief and depression of the parents later on in time. So parents who chose for a cremation adjusted equally well as parents who chose for a burial. For caretakers in the early days of bereavement, these results may provide relevant information for forming guidelines in helping parents to make these decisions, although caution is needed because no causal relationship was tested in our study.

Complicated Grief

As discussed above, the results of our study confirm the distinction between grief and depression symptomatology. It is important to consider the broader clinical implications of this finding, because of the above mentioned debate on whether complicated grief is a distinct mental disorder. In recent years a lot of attention has been given to possible individual differences that reflect a normal bereavement process. No strict expectations can be made as to how the bereaved person should go through the process of grieving. However, over the years there have been several

attempts to define and classify pathological forms of grief. In line with these attempts, there is an ongoing debate on the existence and classification of Complicated Grief (for a review see Lichtenthal, Cruess, & Prigerson, 2004; Boelen, 2005). Recently, research directed at establishing a consensus on the definition and assessment the syndrome Complicated Grief has been accumulating. In short, when grief is very intense and of long duration, severely disrupting the daily life of the bereaved, the bereaved should be classified as having Complicated Grief. At this moment, a group of experts on bereavement is working on the definition of a set of criteria for Complicated Grief, which may lead to the inclusion of Complicated Grief in the next edition of the DSM. The classification of Complicated Grief in the DSM establishes the syndrome as a mental disorder, which (in some countries) is needed to get reimbursed for psychological or psychiatric treatment. Our research contributed indirectly to the debate on the inclusion of Complicated Grief in the DSM, by adding knowledge on the distinction between the syndromes of depression and of (complicated) grief.

Methodological implications

As mentioned before, there has been surprisingly little sound empirical research investigating the psychological adjustment of bereaved parents. The research that has been done is characterised by small samples, an individual approach, a restricted number of predictors and inadequate statistical analyses. These limitations can have important consequences: Within a small sample true relationships are hard to find (low statistical power), and disregarding the dependency of the couple and treating the results as based on individuals may lead to spurious results. A restricted number of predictors may also lead to spurious results, due to the confounding effects of other variables, and inadequate statistical analyses may lead to all the aforementioned disadvantages.

To overcome the shortcomings mentioned above, in our research a large number of couples was included, multiple predictors were included to predict grief and depression and the data were analysed with adequate statistical techniques specifically designed for dependent data (multilevel regression analyses) and interpersonal processes (Actor Partner Interdependence Model). Over and above the advantage of multilevel regression analysis to handle the dependency of the data in an appropriate way, the structure of the analysis also had additional advantages. In Chapter 2, for example, the partitioning of the predictors in individual factors versus factors shared by the parents in the couples, strengthened the findings in differentiating between grief and depression, since the structure of the analysis revealed that depression was predicted by individual factors, while grief was

predicted mostly by factors that were shared by the parents. In Chapter 6 the Actor Partner Interdependence Model (APIM) was used, which enabled us not only to identify partner effects, but also, importantly, to specify this effect for gender, while controlling for the effects of the parents him or herself.

Limitations

The first limitation of our study was that, as in almost all bereavement research, there was no opportunity to gain information on psychological symptoms of the parents before they lost their child. In investigating relationships between variables after a major life-event, this could have two disadvantages. First, it could be that the level of symptomatology of the parents partly reflects symptomatology that was already present before the loss (i.e. that high levels of grief and depression after the loss, are related to high levels of depression (symptomatology) before the loss of the child). For example, women reported more depression symptoms in our study, but this could reflect the fact that women in general have higher levels of depression (cf. Stroebe, Stroebe, & Schut, 2001). Second, the measurement of factors that are presumed to be stable factors, such as adult attachment and neuroticism, could nevertheless be influenced by the loss of the child (Davila, & Cobb, 2004). Here there is also the disadvantage of not being able to have a measurement moment before the actual loss.

Some of these problems could have been resolved by the inclusion of a non bereaved control group. Had control groups been included, it could have been tested whether relationships found in the study between predictors and the outcome variables were unique for parents in bereavement or also present for parents in general. Nevertheless, this would have been only applicable for depression scores, because control groups (couples of parents who did not lose a child) could obviously not be used as comparison for grief. Furthermore, the aim of the study was to differentiate within the group of bereaved parents. Although information on the psychological characteristics and well-being of the parent would have been helpful for the interpretation of the results, not using pre-loss measures or control groups does not invalidate the factors that have been shown to differentiate within the group of bereaved parents.

It should be noted that of the initial 463 couples of parents who were approached by the researchers, 47% agreed to participate in the current research project. Of the couples who participated, 17.8% dropped out at the second or third measuring point. These numbers correspond favourably with response rates found in other bereavement research (see Stroebe & Stroebe, 1987; Dijkstra, 2000). The non-respondents were compared with the participators on the information in the obituary notices, the gender and age of the child. No differences were found associated to gender of the child. The deceased children of the non-respondents turned out to be

older than the children of the parents participating in the study ($t(378)=-5.29, p<.001$). Our results showed (Chapter 2) that grief of the parent was related to the age of the child, so the high intensity of grief of the non-respondents could be one of the reasons they did not want to participate. Grief scores in the population of bereaved parents could therefore be even higher than those reported in the present study. Although it cannot be categorically stated, there are no strong reasons to assume that the relationships found between (risk) factors and the psychological adjustment were different for the non-respondents.

Future research

Above and beyond the recommendations we have made in the previous chapters and sections of the current one, some of the pathways that seem most important to future research in the parental bereavement area deserve further mention.

This study has provided information on a number of factors that can identify bereaved parents at high risk. The factors that have been identified as risk factors for intense grief and depression in bereaved parents can be used in the selection of participants in future studies on preventive interventions for bereaved parents. More research is needed to ascertain that these secondary interventions show positive results for these parents. Parents could be selected on the basis of specific features: for example, mothers, unexpected and accidental or violent death of a teenager, with no children remaining in the family, low education and low number of hours at work. In addition, when intra-psychological factors such as attachment style and coping strategy can be assessed in the bereaved parent, these factors could also be used in the identification of parents at particularly high risk.

Furthermore, the results reported in this thesis confirm the differentiation between grief and depression as separate syndromes, which has implications for the treatment of bereaved parents. Grief specific effects have been suggested by previous studies, though not specifically with bereaved parents: In their study on interventions for Complicated Grief, Shear, Frank, Houck, and Reynolds (2005) have shown that interventions for bereavement result in a steeper decline of symptomatology than general interventions for depression. Boelen, de Keijser, van den Hout and van den Bout (in press) reported that a cognitive-behavioral treatment in the case of CG showed better results than supportive counselling. Further research is needed to validate the treatment of these syndromes in bereaved parents. Moreover, in future studies a further investigation of the symptomatology of the bereaved parent seems warranted. First, the loss of a child may occur during a traumatic event, for example after a severe car crash, and may therefore lead to post

traumatic stress symptoms. Secondly, the loss of a child is always untimely, so the loss could possibly be a traumatic event in and of itself. Future studies that investigate to what extent the concepts and the symptoms of grief and depression can be differentiated from a third concept, Post Traumatic Stress Disorder, are recommended.

With respect to attachment theory, the results of the study have challenged some basic hypotheses postulated by this theory. The loss of a child seems to play a crucial role in the assumed collapse of the deactivating strategies of the avoidantly attached. Further research is warranted into the nature of avoidant ways of coping and underlying mechanisms to gain more understanding of these deactivating strategies, to establish when they in fact might collapse.

With respect to the interpersonal processes in the adjustment process of the couple of parents, the results of Chapter 6 have provided some interesting new observations. For the men, the restoration-orientation of their wife appeared important for their well-being. However, to make full use of this in the treatment of bereaved (couples of) parents, more information is needed on the processes underlying high restoration-orientation in women. Moreover, these results raise important questions: What are the crucial factors for the interpersonal process, what aspects of the partner are essential for the well-being of the bereaved parent – and, are the objective aspects relevant, or is maybe the parent's perception of the partner central in the interpersonal process? Future studies directed at the dynamics of interpersonal processes and perception within these interpersonal processes are warranted.

In the articles presented in this thesis, predictors of the psychological adjustment of bereaved parents have been identified. As the loss of a child is considered to be the most disastrous form of bereavement, I hope that this thesis adds to the knowledge on the psychological adjustment of parents and that it will possibly lead to refining of help for those who are in need.

Notes

¹ Gender was also a predictor of depression.

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Appendix: Questionnaires used in the study

Inventory of Complicated Grief

(Prigerson et al. 1995, Dutch version by Dijkstra, Schut, Stroebe, Stroebe, & van den Bout)

1. I think about our deceased child so much that it is hard for me to do the things I normally do
2. Memories of our deceased child upset me
3. I find it difficult to accept the death of our child
4. I long for our deceased child
5. I feel drawn to places and things associated with our deceased child
6. I feel angry about the death of our child
7. I feel disbelief over what happened
8. I feel stunned or dazed over what happened
9. Ever since our child died it is hard for me to trust people
10. Ever since our child died I feel like I have lost the ability to care about other people, or I feel distant from people I care about
11. I recognise things of our deceased child in myself
12. I go out of my way to avoid reminders of our deceased child
13. I feel that life is empty without our deceased child
14. I hear the voice of our deceased child
15. I actually see our deceased child in front of me
16. I feel that it is unfair that I should live when our child died
17. I feel bitter over our child's death
18. I feel envious of others who have not lost a child
19. I feel lonely ever since our child died

Answering scale:

- Never
- Rarely
- Sometimes
- Often
- Always

Adult Attachment Scale

(Collins & Read, 1990; Dutch translation by Dijkstra, Schut, Stroebe, Stroebe, & van den Bout)

Anxious attachment

1. I am not sure that I can always depend on others to be there when I need them
2. I do not often worry about being abandoned
3. I often worry that my partner does not really love me
4. I often worry my partner will not want to stay with me
5. I want to merge completely with another person
6. My desire to merge sometimes scares people away.

Avoidant attachment

1. I find it difficult to allow myself to depend on others
2. People are never there when you need them
3. I find it difficult to trust others completely
4. I am somewhat uncomfortable being close to others
5. I am nervous when anyone gets too close.

Relationship Interaction Satisfaction Scale
(Buunk & Nijskens, 1980)

1. I feel happy when I'm with my partner
2. We have quarrels
3. Things go well between us
4. I regret being involved in this relationship
5. My partner irritates me
6. I consider leaving my partner
7. I enjoy the company of my partner
8. I feel/ think our relationship won't last

Answering scale:

- Never
- Rarely
- Sometimes
- Rather often
- Very often

Dual Coping Inventory

(Dijkstra, Schut, Stroebe, Stroebe & van den Bout)

Loss-orientated coping

1. I am occupied with the loss of my child
2. I dwell on my sorrow
3. I think of our deceased child

Restoration-oriented coping

1. I direct my thoughts toward the future
2. Despite everything, I am trying to make the best of it
3. I try to look ahead
4. I am trying to go on with my life

Answering scale

- Rarely/ never
- Sometimes
- Regularly
- Often
- Very often

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Nederlandse samenvatting

Inleiding

Het verliezen van een kind is een van de meest ingrijpende gebeurtenissen die een mens kan overkomen. Ouders die een kind verliezen, hebben de zware opgave hun leven vorm te geven in een voor hen volledig veranderde wereld. Het is bekend dat het verlies van een dierbare verstrekende gevolgen kan hebben voor de nabestaanden op psychisch, lichamelijk en sociaal gebied (cf. Stroebe, Hansson, Stroebe, & Schut, 2001). Onderzoek heeft aangetoond dat het verlies van het kind leidt tot ernstiger problematiek in vergelijking met het verlies van een partner of van een ouder (Nolen-Hoeksema & Larson, 1999; Sanders, 1989). Gevolgen voor ouders zijn ingrijpend en variëren van intens verdriet, een gevoel van leegte, boosheid en schuldgevoelens tot psychische stoornissen en kunnen ook leiden tot een verhoogde kans voor opname voor psychische problematiek en een verhoogde kans tot overlijden van de ouder zelf (Li, Precht, Mortensen, & Olsen, 2003; Li, Laursen, Precht, & Olsen, 2005). Een belangrijke complicerende factor is dat in de meeste gevallen de ouders naast het grote verdriet om het verlies van het kind, ook moeten gaan met hun partner die hetzelfde verlies heeft geleden. Hoewel dit ook als positief ervaren kan worden, namelijk wanneer het gedeelde leed een troost is, kan dit het verwerkingsproces van de ouder compliceren doordat degene waar hij of zij meestal op steunt in moeilijke tijden, wellicht geen ruimte heeft om die steun te geven.

Hoewel alle ouders ernstig lijden onder het verlies van hun kind, zijn er aanzienlijke individuele verschillen in het verwerkingsproces, zowel tussen partners binnen een (echt)paar als tussen (echt)paren (zie voor een overzicht: Dijkstra & Stroebe, 1998; Dyregrov, Nordanger, & Dyregrov, 2003). De vraag die dan opkomt is: Waar hangt het mee samen dat de ene ouder heftiger en langduriger reageert op de dood van zijn/haar kind dan de ander? Het onderzoek dat is verricht naar de verliesverwerking van ouders die een kind hebben verloren is beperkt, en studies die koppels hebben onderzocht zijn er vrijwel niet. Daarnaast hebben de studies die uitgevoerd zijn naar de verliesverwerking van ouders hebben vaak ernstige methodologische beperkingen. Er is veelal sprake van kleine steekproeven met de nadruk op één of een beperkt aantal specifieke doodsoorzaken. Kenmerkend is eveneens dat deze studies vrijwel uitsluitend de ouder als individu beschouwen, en dat er nauwelijks aandacht is voor het feit dat de partners van een (echt)paar niet los van elkaar beschouwd kunnen worden.

In dit proefschrift is geprobeerd een bijdrage te leveren aan de kennis over (risico)factoren voor problematische verliesverwerking van ouders na de dood van een kind, waarbij de ouders zowel als individu, alsook als onderdeel van een (echt)paarrelatie worden beschouwd.

In de bestudering van het verwerkingsproces is ervoor gekozen om naar zowel rouw- als depressie-symptomen te kijken. Rouwsymptomen zijn emotionele, cognitieve en gedragsmatige reacties op het verlies, die kunnen variëren van verdriet en ongeloof tot voortdurend bezig zijn met de overledene (preoccupatie), zoekgedrag en het vermijden van situaties of plaatsen die met de overledene te maken hebben. Depressie-symptomen, zoals een sombere stemming en verminderde interesse, zijn meegenomen in de studie omdat in veel onderzoek naar rouw en verliesverwerking depressie-symptomen zijn gebruikt als indicator voor rouwsymptomatologie. Vooral in de laatste jaren is er onderzoek gedaan naar de verschillen tussen rouw en depressie en deze laten zien dat hoewel de symptomen sterke samenhang vertonen, het toch twee van elkaar te onderscheiden syndromen zijn (Boelen, & Van den Bout, 2005; Prigerson & Jacobs, 2001). Aangezien nog weinig bekend is over de verschillen en overeenkomsten in voorspellende factoren van rouw en depressie na de dood van een dierbare, is het onderzoek expliciet zo vorm gegeven dat aan de kennis hieromtrent ook een bijdrage wordt geleverd.

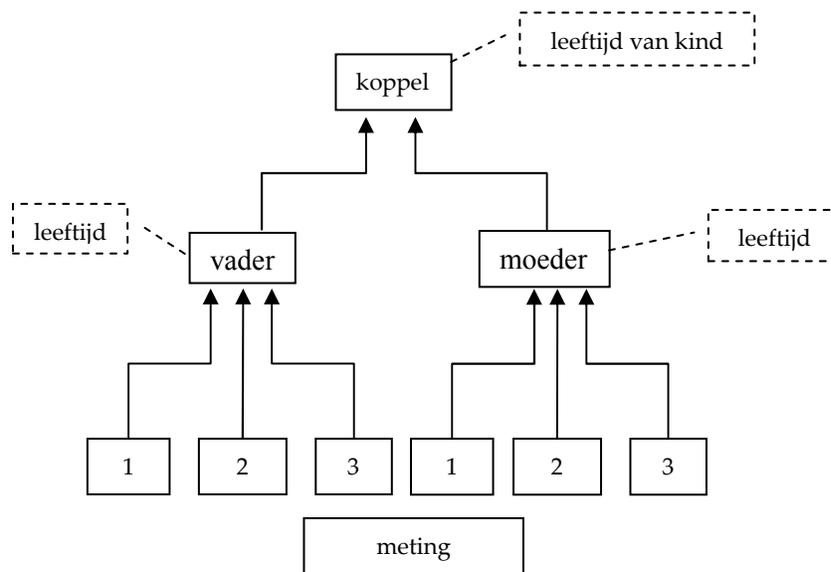
Na de algemene inleiding in hoofdstuk een, zijn in hoofdstuk twee objectieve karakteristieken van de ouder, het kind en het overlijden in relatie tot de verliesverwerking bestudeerd. In het verlengde hiervan is in hoofdstuk drie bestudeerd hoe de omstandigheden rondom het overlijden gerelateerd zijn aan het rouwproces van de ouders. In de volgende hoofdstukken zijn de psychische karakteristieken van de ouders nader beschouwd om meer inzicht te krijgen in de verschillen die er bestaan in het verwerkingsproces. In hoofdstuk vier is bestudeerd of de hechtingsstijl van de ouders samenhangt met rouw en depressie van beide ouders. Vervolgens is in het verlengde hiervan in hoofdstuk vijf aandacht besteed aan de vraag in hoeverre ook neuroticisme, naast hechtingsstijl, een bijdrage levert aan de voorspelling van klachten van de ouders. In hoofdstuk zes zijn rouw-specifieke coping-strategieën bestudeerd in relatie tot de verliesverwerking, waarbij eveneens het effect van de copingstrategie van de partner op de klachten van de ouder is bestudeerd. Tot slot is in hoofdstuk zeven een samenvatting gegeven van de resultaten en zijn de theoretische, praktische en methodische implicaties besproken. Hieronder volgt een overzicht van de methode van het onderzoek en een samenvatting van de belangrijkste bevindingen die aan de orde zijn gekomen in hoofdstuk twee tot en met zes.

In totaal zijn 463 ouderparen die een kind hadden verloren, benaderd om mee te werken aan het onderzoek. Deze mensen zijn door Iris Dijkstra (in het kader van haar eerdere proefschrift op basis van dit project) geselecteerd door middel van overlijdensadvertenties in landelijke en regionale dagbladen. Van deze groep ouders zijn 219 paren (47%) akkoord gegaan met deelname aan het onderzoek. De uitval bij de tweede en derde meting was in totaal 17,8%. De ouders varieerden in leeftijd van 26 tot 68 jaar ($M = 42,2$, $SD = 9,1$) en de leeftijd van het kind varieerde van dood bij de geboorte tot 29 jaar, met de gemiddelde leeftijd van 10,2 jaar ($SD = 9,8$). Van de overleden kinderen was 68,7% een jongen. De doodsoorzaak varieerde: overleden voor of tijdens de geboorte (16,3%), ziekte of stoornis (47,6%), en een ongeluk, wiegendoed, zelfmoord en moord (36,1%).

De ouders zijn 6 maanden na het overlijden van hun kind geïnterviewd en hebben 6, 13 en 20 maanden na het overlijden afzonderlijk van elkaar een set van vragenlijsten ingevuld. Deze set bevatte onder andere lijsten met betrekking tot rouw, depressie, hechtingsstijl, neuroticisme en copingstrategieën.

Om de verzamelde gegevens op een adequate manier te analyseren is er gebruik gemaakt van multilevel regressie-analyse (Hox, 2002; Rasbash et al., 2000). In een regressie-analyse wordt een afhankelijke variabele, in dit geval rouw of depressie, voorspeld op basis van een aantal onafhankelijke variabelen (bijvoorbeeld de leeftijd van een ouder en de leeftijd van het kind). Bij het gebruik van een standaard regressie-analyse wordt ervan uit gegaan dat alle observaties onafhankelijk zijn. In het geval van (echt)paren (in dit geval ouders die een kind hebben verloren), is dat vanzelfsprekend niet het geval: ouders binnen een (echt)paarrelatie zijn statistisch gezien afhankelijk van elkaar. Daarnaast zijn de metingen door de tijd ook afhankelijk (binnen één persoon). De dataset bestaat daardoor uit drie niveaus (zie Figuur 1): het laagste niveau is tijd, waarbij de drie meetmomenten zijn 'genest' in het individu. Het tweede niveau is het individuele niveau: de vader en de moeder. Zij zijn samen genest in het koppel, het derde niveau. Multilevel regressie analyse is speciaal ontwikkeld voor dergelijke geneste data.

Om ook het effect van karakteristieken van de partner op het verwerkingproces van de andere ouder te kunnen onderzoeken is gebruik gemaakt van het Actor Partner Interdependence Model (APIM; Kashy & Kenny, 2000) dat speciaal is ontworpen om partnereffecten te onderzoeken binnen een multilevel analyse.



Figuur 1 Geneste structuur van de data

Overzicht van de hoofdstukken

Hoofdstuk twee

Voor het verlenen van hulp aan nabestaanden blijkt het identificeren van de meest kwetsbare personen (secundaire preventieve interventies) effectiever te zijn dan hulpverlening aan te bieden zonder selectie (Schut, Stroebe, Van den Bout, & Terheggen, 2001). Hoewel eerder onderzoek geprobeerd heeft risicofactoren voor ouders die een kind hebben verloren in beeld te brengen, heeft geen enkele studie meerdere voorspellende (risico)factoren tegelijk meegenomen, noch de accurate statistische analyses gebruikt om adequaat met de aard van de afhankelijke data om te gaan. Daarom is in *hoofdstuk twee* de belangrijkste vraag: Welke objectieve risicofactoren voor rouw en depressie kunnen geïdentificeerd worden bij ouders die een kind hebben verloren? In een poging deze vraag te beantwoorden, hebben we de relatieve bijdrage van karakteristieken van de ouders, het kind en het overlijden bekeken in het beloop (de voorspelling) van het verwerkingsproces van de ouders na het overlijden van hun kind.

Er blijkt een groot verschil te zijn tussen risicofactoren voor rouw en depressie. Rouw blijkt voornamelijk voorspeld te worden door factoren die gelijk zijn voor de ouders binnen een koppel: karakteristieken van het kind, het gezin, en van het overlijden van het kind. Depressie daarentegen wordt voorspeld door individuele kenmerken van de ouder. Risicofactoren voor rouw zijn de leeftijd van het kind (meer rouw naarmate het kind ouder is, tot de leeftijd van 17 jaar waarna het weer licht afneemt), doodsoorzaak (meer rouw na een ongeluk of gewelddadig overlijden), onverwachtheid van het overlijden (meer rouw als het overlijden onverwacht is), het aantal kinderen dat aanwezig is in het gezin na het overlijden (minder rouw bij meer kinderen) en de individuele factoren opleiding en aantal uren werk per week (minder rouw bij hogere opleiding en meer uren werk). Rouw en depressie hangen beide samen met het geslacht van de ouder, waarbij vrouwen meer klachten rapporteren. Depressie wordt daarnaast nog voorspeld door religiositeit (meer depressieve symptomen bij religieuze ouders).

Hoofdstuk drie

De omstandigheden rondom het overlijden van het kind waarmee ouders geconfronteerd worden variëren uiteraard per situatie. Zo verschilt bijvoorbeeld niet alleen de doodsoorzaak en de locatie van overlijden van het kind, maar ook of de ouders (in de gelegenheid zijn om te) besluiten om het lichaam van het kind thuis op te baren en of kiezen voor een begrafenis of voor een crematie. Om meer inzicht te krijgen in de consequenties van de omstandigheden rondom het overlijden en de eerste dagen na het overlijden, zijn in *hoofdstuk drie*, de samenhang tussen enerzijds de omstandigheden rondom het overlijden en anderszijds rouw en depressie-symptomen bekeken. Sommige omstandigheden rondom het overlijden zijn voldongen feiten waar de ouders geen invloed op hebben, bijvoorbeeld de oorzaak van het overlijden, terwijl andere factoren wel beïnvloed kunnen worden door de ouders of zelfs moeten worden, zoals de keus of het kind begraven of gecremeerd zal worden. De bestudeerde factoren zijn daarom ingedeeld in twee categorieën: factoren die bepaald zijn door de omstandigheden versus factoren waar de ouders (enige) invloed op hebben. De resultaten tonen dat ouders die hun kind onverwacht verliezen en/of door een ongeluk of een gewelddadige dood de meeste rouwklachten hebben. Daarnaast blijkt dat het opbaren van het kind thuis en het afscheid nemen van het kind samenhangt met minder rouw bij de ouders. Ook zijn er keuzes die niet gerelateerd zijn aan de mate van rouw en depressie: noch de keus tussen een begrafenis of een crematie, noch het persoonlijk verzorgen van het overleden kind door de ouders zelf hangt samen met het rouwproces van de ouders.

Hoofdstuk vier

De hechtingstheorie verschaft een belangrijk raamwerk om individuele verschillen in rouw na het overlijden van een dierbare te begrijpen (Archer, 1999; Bolby, 1980). Daarom is in *hoofdstuk vier* de relatie tussen de volwassen hechting(stijl) en het verwerkingsproces bij ouders die een kind hebben verloren onderzocht. Volgens de hechtingstheorie worden verschillende stijlen van hechting die vorm geven aan de reacties op emotionele gebeurtenissen zoals het overlijden van een dierbaar persoon, gevormd door de vroege ouder-kind relatie (bijv. Bowlby, 1969/1982, 1973, 1980; Parkes, 2001; Shaver & Tancredy, 2001). Volgens de hechtingstheorie functioneren volwassen hechtingsrelaties op dezelfde wijze als ouder-kind hechtingsrelaties (Fraley, 2004). Recent hebben experts op het gebied van hechting gepleit voor een conceptualisering van hechting in termen van twee dimensies, ontwijkende hechting en angstige hechting (Brennan, Clark, & Shaver, 1998). De dimensie ontwijkende hechting ofwel de mate waarin een persoon de goede bedoelingen van de partner niet vertrouwt en streeft naar autonomie en emotionele afstand van zijn partner, wordt verwacht ongerelateerd te zijn aan het rouwproces van de nabestaande. De tweede dimensie, angstige hechting, te zien als de mate waarin een persoon zich er zorgen over maakt dat zijn partner niet beschikbaar zal zijn in tijd van nood (Mikulincer, Dolev, & Shaver, 2004), wordt wel verwacht gerelateerd te zijn aan het rouwproces van de nabestaande – nabestaanden die angstig gehecht zijn zouden meer klachten hebben.

Het doel van dit onderzoek was het verduidelijken van individuele verschillen in het aanpassingsproces van ouders na het overlijden van een kind, waarbij voorspellingen vanuit de hechtingstheorie gebruikt zijn om patronen te identificeren. Er is niet alleen gekeken of het aanpassingsproces van de ouder was gerelateerd aan de hechtingsstijl van de ouder zelf, maar ook of het was gerelateerd aan de hechtingsstijl van de partner. Daarnaast is gekeken of de rol van tevredenheid over de relatie, waarvan is aangetoond dat het samenhangt met zowel volwassen hechtingsstijl als rouw (bijv., Lang, Gottlieb, & Amstel, 1996), medieert tussen onveilige hechting van de ouder aan de ene kant en rouw en depressie aan de andere kant. De resultaten van deze studie ondersteunen deels de voorspellingen: angstige hechting hangt inderdaad samen met meer rouw en depressie en dit verband wordt deels gemedieerd door de tevredenheid over de relatie. Geheel onverwacht vertoonde ook ontwijkende hechting een positief verband met rouw en depressieklachten: iemand die ontwijkend gehecht is, heeft meer rouw en depressieklachten dan iemand die veilig gehecht is. Dit is geïnterpreteerd in termen van het fenomeen dat eerder is beschreven door Mikulincer, Dolev and Shaver (2004), het zogenoemde 'rebound-effect'. Dit betekent dat ontwijkende hechtingsstrategieën verwacht worden te werken wanneer er een situatie is met weinig spanning, maar wanneer er een situatie is met langdurig en veel spanning

zouden deze strategieën niet (meer) werken. Het verliezen van een kind is overduidelijk een ingrijpend en langdurig proces met veel spanning waardoor de strategieën die gebruikt worden waarschijnlijk niet meer werken, hetgeen vervolgens leidt tot psychische problematiek.

Hoofdstuk vijf

In *hoofdstuk vijf* is de aandacht verlegd naar de relatie tussen twee concepten die hun oorsprong vinden in twee verschillende theorieën, namelijk hechtingstheorie en persoonlijkheidstheorie. Hierbij is gekeken naar onveilige hechting versus neuroticisme. Neuroticisme is een persoonlijkheidstrekk die wordt gekarakteriseerd door een neiging onplezierige en verstorende emoties te ervaren (McCrae & Costa, 1999). Hoewel is aangetoond dat zowel onveilige hechting, als neuroticisme samenhangen met meer klachten tijdens het rouwproces, zijn voor zover wij weten nog nooit de relatieve bijdrage van deze constructen aan de voorspelling van rouw en depressie vergeleken. Vragen met betrekking tot de twee theorieën zijn: Wordt er eigenlijk in twee velden hetzelfde construct gemeten – of hebben beide constructen een unieke voorspellende waarde? De resultaten tonen aan dat beide aspecten, zowel onveilige hechting als neuroticisme, een unieke bijdrage leveren aan de voorspelling van rouw en depressie. In tegenstelling tot de verwachting voorspelde de factor neuroticisme een relatief groter deel dan de onveilige hechting van de ouder.

Hoofdstuk zes

Om het rouwproces van de ouders nog beter te begrijpen, is ook het proces vanuit een interpersoonlijk perspectief bestudeerd. Deze benadering veronderstelt dat het rouwproces van de ouder niet alleen samenhangt met de manier waarop de nabestaande zelf met het verlies omgaat ('coping'), maar dat de manier van omgaan van de partner ook van invloed kan zijn op het eigen verwerkingsproces. Daarom is in *hoofdstuk zes* het verband tussen de copingstrategie van de ouder en die van de partner aan de ene kant, en het rouwproces van de ouder aan de andere kant geanalyseerd. In het onderzoek zijn rouw-specifieke copingstrategieën bestudeerd. Deze zijn gebaseerd op het Dual Process Model (DPM; Stroebe & Schut, 1999). Hoewel het niet het doel van de studie was om de parameters van de DPM in zijn totaliteit te onderzoeken, is het model niettemin belangrijk voor deze studie. Het model veronderstelt dat de twee copingstrategieën, verlies-georiënteerde coping en herstel-georiënteerde coping, beide nodig zijn voor een gunstig verloop van het rouwproces. Verlies-georiënteerde coping verwijst naar het concentreren op en omgaan met aspecten van het verlies zelf, terwijl herstel-georiënteerde coping verwijst naar het omgaan met secundaire bronnen van stress (de veranderingen die volgen naar aanleiding van het overlijden). Herstel-georiënteerde coping was gedefinieerd als een actieve poging om naar de toekomst te kijken en het leven weer

op te bouwen. De volgende vraag is dus onderzocht: Zijn zowel intra- als interpersoonlijke processen relevant in het rouwproces van de ouders die een kind hebben verloren? Zoals verwacht lieten de resultaten zien dat ouders die hoog scoorden op verlies-georiënteerde coping meer rouw en depressieve klachten rapporteren, terwijl ouders die hoog scoorden in herstel-georiënteerde coping minder rouw en depressie-symptomen rapporteren. Zoals verwacht kan worden op basis van het DPM, werd het negatieve effect van erg op het verlies georiënteerd zijn sterk verminderd wanneer de ouder ook veel herstel-georiënteerde coping rapporteert. Ook werd een sekse-specifiek partnereffect gevonden: Vaders rapporteren minder rouw en depressie-symptomen wanneer de moeder (ook) gericht is op het herstel van het leven na het overlijden van het kind. Blijkbaar is het niet alleen gunstig voor de vrouw om (ook) op het herstel gericht te zijn, maar ook voor haar partner.

Hoofdstuk zeven

Ter afsluiting worden een aantal beperkingen van de studie besproken en nogmaals kort de belangrijkste theoretische, methodische en praktische implicaties genoemd, alsmede onderwerpen voor vervolgstudies.

Onvolkomenheden van de studie:

De eerste beperking van onze studie is dat, zoals in vrijwel elk onderzoek naar rouw, er geen mogelijkheid was om informatie over psychische toestand van ouders te verkrijgen voordat het kind was overleden. Dit kan (op zijn minst) twee nadelen hebben. Om te beginnen kan het zijn dat het niveau van symptomen dat gemeten is deels symptomen reflecteert die ook bestonden voor het verlies. Daarnaast kan het meten van psychische eigenschappen, hoewel die verondersteld worden stabiel te zijn, niettemin beïnvloed zijn door het verlies van het kind.

Een andere beperking is de non-respons en de uitval die heeft plaatsgevonden tijdens het onderzoek. 47% van de ouders die oorspronkelijk zijn aangeschreven zijn akkoord gegaan met deelname, en van hen is 17,8% tijdens de studie uitgevallen. De ouders die niet mee wilden doen zijn vergeleken met de deelnemers op informatie uit de overlijdensadvertentie. De overleden kinderen van de ouders die niet deelnamen bleken ouder te zijn dan van de ouders die wel meededen. Hoewel het niet aangetoond kan worden, zijn er geen sterke redenen om aan te nemen dat de relaties die gevonden zijn tussen de (risico)factoren en de verliesverwerking van de ouders verschillend zijn bij de mensen die niet hebben deelgenomen aan de studie.

Hechtingstheorie

Het onderzoek bevestigt het verband tussen het hebben van een angstige hechtingsstijl en meer rouw en depressieklachten. In tegenstelling tot eerder onderzoek naar hechting en rouw bleken ouders met een ontwijkende hechtingsstijl in onze studie ook meer rouw en depressie te hebben. De verklaring voor dit resultaat is gezocht in het zogenaamde 'rebound effect' dat eerder is geïntroduceerd door Mikulincer et al. (2004). Het 'rebound effect' stelt dat de mechanismen die mensen met een ontwijkende hechtingsstijl gebruiken om met emotionele situaties om te gaan, bij zeer veel en langdurige spanning niet (meer) werken waardoor deze mensen juist meer klachten krijgen.

Dual Proces Model

Hoewel het onderzoek er niet op gericht was om de wisselwerking tussen verlies- en herstel-georiënteerde coping van het Dual Process Model te onderzoeken, ondersteunen de resultaten het veronderstelde model gedeeltelijk. Als de ouder in het proces erg op het verlies gericht was, had hij of zij meer depressieve symptomen. Maar, zoals verwacht in de DPM, bleek dat als de ouder daarnaast ook op herstel van het leven gericht was, het depressie niveau juist lager was. Ouders die niet (meer) op het verlies gericht waren en juist wel op herstel hadden de minste rouw en depressie.

Depressie versus rouw

Eerder onderzoek heeft aangetoond dat de symptomen van rouw inhoudelijk te onderscheiden zijn van depressie-symptomen (Boelen, & Van den Bout, 2005; Prigerson & Jacobs, 2001). Ons onderzoek heeft aangetoond dat niet alleen de symptomen, maar ook voorspellers van rouw en depressie verschillen. Voorspellers van rouw zijn naast psychische karakteristieken van de ouder, voornamelijk de aan het overlijden gerelateerde factoren zoals bijvoorbeeld de doodsoorzaak, de onverwachtheid van het overlijden en het al dan niet opbaren van het kind thuis. Depressie wordt in tegenstelling tot rouw voorspeld door individuele eigenschappen van de ouder, zoals geslacht, religiositeit maar ook psychische eigenschappen zoals hechtingsstijl en copingstrategieën.

Risicofactoren

Met het oog op toekomstig onderzoek en het verlenen van hulp aan ouders die een kind hebben verloren, is het van belang om kennis te hebben op het gebied van risicofactoren voor rouw. Schut, Stroebe, Van den Bout and Terheggen (2001) concludeerden dat er een behoefte is om te differentiëren binnen de groep van ouders die een kind hebben verloren, aangezien het selecteren van ouders op basis van een risicoprofiel de kans verhoogt dat een aangeboden interventie gunstige resultaten zal opleveren.

De meest toegankelijke factoren om ouders op te screenen zijn de objectieve eigenschappen van de ouders, het kind en het overlijden. De factoren die gevonden zijn in hoofdstuk twee komen dan naar voren, en wanneer deze factoren gecombineerd worden blijkt dat moeders die een kind verliezen dat in de puberteit zit, door een ongeluk of een gewelddadige doodsoorzaak, of wanneer het kind (op een andere manier) onverwacht is overleden, een verhoogd risico op rouwproblematiek hebben. Als het kind het enige kind was en de ouders lager opgeleid zijn en weinig of niet werken verhoogt dit het risico. Hoewel de psychische eigenschappen wellicht minder toegankelijk zijn, hebben ouders met een onveilige hechtingsstijl en ouders die enkel op het verlies van het kind gericht zijn, ook een verhoogde kans op rouwproblematiek.

Richtlijnen voor de eerste dagen rondom het overlijden

In de eerste dagen na het overlijden van het kind is het vaak moeilijk om de ouders te ondersteunen in het maken van de besluiten voor de procedures rondom het overlijden. Hoewel elke situatie zijn eigen keuzes met zich meebrengt, kunnen de resultaten van hoofdstuk drie enige richtlijnen geven. Uit hoofdstuk drie blijkt dat twee keuzes gerelateerd zijn aan de verliesverwerking van de ouders. Wanneer de ouders het kind thuis opbaren, hebben ze later minder rouwsymptomen. Enige voorzichtigheid is geboden bij het aanraden van het opbaren thuis aangezien de ouders in deze studie hun eigen keus hebben kunnen maken. Daarnaast blijkt dat ouders die het gevoel hadden dat ze afscheid hadden genomen, later minder rouw hadden. Als er geen mogelijkheid was voorafgaand aan het overlijden van het kind, zouden de ouders na het overlijden gestimuleerd kunnen worden om op een symbolische wijze afscheid te nemen van hun overleden kind.

Het is ook belangrijk stil te staan bij het feit dat sommige zaken kennelijk geen verband houden met de verliesverwerking van de ouders. Moeilijke keuzes, zoals of ouders zelf het lichaam van het kind verzorgen na het overlijden, of de keus tussen een begrafenis of crematie bleken ongerelateerd aan rouw en depressie van ouders. Voor hulpverleners in de eerste dagen na het overlijden kunnen deze resultaten

informatie verschaffen voor richtlijnen om ouders die een kind hebben verloren te helpen met het maken van keuzes, hoewel zoals eerder gezegd voorzichtigheid geboden is.

Depressie en rouw

Het bovengenoemde gevonden verschil tussen de voorspellers van rouw en depressie (zie theoretische implicaties) kan ook gevolgen hebben voor de hulpverlening. De gevonden resultaten kunnen een rol spelen in de discussie die gaande is over het al dan niet opnemen van gecompliceerde rouw als stoornis in de komende versie van het algemeen gebruikte classificatiesysteem voor psychische stoornissen, de DSM V.

Methodische implicaties

Zoals eerder beschreven, zijn er verbazingwekkend weinig goede empirische studies naar het verliesverwerkingsproces van ouders die een kind hebben verloren. Eerder onderzoek wordt gekarakteriseerd door kleine steekproeven, een individuele benadering, een beperkt aantal voorspellers en inadequate statistische analyses. Deze tekortkomingen kunnen verstrekende negatieve consequenties hebben. In ons onderzoek werd een grote steekproef gebruikt en door het gebruik van multilevel regressie analyses in combinatie met het Actor Partner Interdependence Model is op accurate wijze omgegaan met afhankelijke data en is er zowel een individuele als een interpersoonlijk aanpak gebruikt.

Toekomstig onderzoek

De resultaten van het onderzoek geven aanleiding tot verschillende vormen van vervolgonderzoek. De drie belangrijkste richtingen zijn mijns inziens de volgende:

Zoals eerder vermeld heeft onderzoek aangetoond dat hulpverlening meer kans op succes heeft als het specifiek gericht en afgestemd is op personen die een verhoogd risico lopen. Hoewel ouders die een verhoogd risico lopen op rouwproblematiek geïdentificeerd kunnen worden met behulp van de factoren die zijn vastgesteld in het huidige onderzoek, is er nog onvoldoende bekend op welke wijze deze groep het best geholpen kan worden.

In het verlengde hiervan is van belang dat in dit onderzoek is gebleken dat voorspellers van rouw en depressie-symptomen van elkaar te onderscheiden zijn. Dit sluit aan bij eerder onderzoek waarin werd vastgesteld dat rouw en depressie

van elkaar te onderscheiden syndromen zijn die hoogstwaarschijnlijk verschillend behandeld moeten worden. Onderzoek van Shear, Frank, Houck, and Reynolds (2005) en Boelen, de Keijser, van den Hout and van den Bout (in press) tonen positieve resultaten voor behandelingen die specifiek op gecompliceerde rouw zijn gericht. Concluderend kan gezegd worden dat er onderzoek nodig is naar hoe ouders die een kind hebben verloren het best geholpen kunnen worden, en dan specifiek voor rouwproblematiek.

Tot slot is het interpersoonlijk effect dat is gevonden is van belang, maar dit is waarschijnlijk maar een beperkt deel van de wisselwerking die er tussen ouders bestaat. De unieke situatie van twee ouders die gezamenlijk een kind verliezen geeft aanleiding tot meer onderzoek naar de verschillende manieren waarop het welzijn en de verliesverwerking van de ouders beïnvloed wordt door hun eigen gedrag en cognities en die van hun partner.

In de artikelen die gepresenteerd zijn in dit proefschrift zijn voorspellers voor een problematische verliesverwerking van ouders die een kind hebben verloren geïdentificeerd. Voor alle ouders die dit enorme verlies hebben moeten lijden en voor alle persoonlijk en professioneel betrokkenen, hoop ik dat dit proefschrift bijdraagt aan de kennis over de verliesverwerking van deze ouders en mogelijk leidt tot het verfijnen van de hulp aan degenen die dat nodig hebben.

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Curriculum Vitae

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