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Mourning after Perinatal Death-Prevalence of Symptoms and Treatment; A Narrative Review

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Review Article

Abstract

Perinatal loss, especially in the advanced stages of pregnancy, is associated with severe psychological distress. Insufficient processing of the loss experience can result in a psychological disorder for some of those affected. This holds true especially for women who have suffered a pregnancy loss after the 20th week of pregnancy. Depressive disorders, symptoms of anxiety, post-traumatic stress disorders, and functional physical complaints can also be observed in the foreground. Following an evaluation of a current Cochrane review, the available studies on the evaluation of psychotherapeutic measures after perinatal loss provide no conclusive indicators for evidence-based approaches within the realm of secondary prevention. Health risks in women affected by the loss of a pregnancy have been alternatively proven by a number of studies. Thus, a noticeable desideratum of research exists with regards to empirically-controlled psychotherapeutic studies on evaluation of the treatment of grief reactions after the loss of a pregnancy.

Keywords: Mourning, Perinatal death, Prevalence, Symptoms, Treatment

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Introduction

Definitions

The terms prenatal and perinatal loss, respectively, encompass miscarriages and stillbirths, and deaths occurring after birth (Leon, 1992). The term perinatal mortality is defined as death during the period shortly before, during, and after birth until the seventh day. The commonly used American term "perinatal death" denotes the loss of a child until the 28th day after birth (Beutel, 2002).

The World Health Organization (WHO) defines a stillbirth or "intrauterine death" (Beutel, 2002; Conway, & Russell, 2000) as being limited to a minimum birth weight of 500g. In German-speaking areas, the term "abort" is used to describe a non-artificial loss of pregnancy before the stage of viability. From a clinical standpoint, it is reasonable to make a distinction between early miscarriages (between the 12th and 14th weeks of pregnancy) and late miscarriages (after the 14th week of pregnancy). In diagnosed pregnancies, the

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prevalence stands internationally at 20% (Robinson, Baker, & Nackerud, 1999).

Since the age of the pregnancy at the time of loss is merely one factor among many which determine psychological reactions and processing, all non-artificial pregnancy losses after the 12th week of pregnancy will be considered in the following overview. Deviating from the aforementioned terminology, we will speak comprehensively of these differing situations as "prenatal and perinatal loss" and subsume among them all non-artificial pregnancy losses after the 12th week of pregnancy until birth.

Prevalence

Miscarriages within the first weeks of pregnancy are a common occurrence. Its prevalence, in the cited literature, fluctuated according to the underlying definitions and study criteria. According to Beutel (2002), at least 30% of all pregnancies detected by use of a pregnancy test (pregnancy hormone hCG) end in a miscarriage. The prevalence of stillbirths (20th-27th weeks) lies between 5 and 12 per 1,000 births (Schauer, Kalousek, & Magee, 1992). Roughly as many children die during birth as during the first seven days of life. This data corresponds with the information provided by the German Federal Statistics Office from the year 1999; in Germany 0.4% of fetuses are born dead upon birth and the perinatal fatality rate is at 0.62% (Statistisches Bundesamt Deutschland, 2015).

Grief processing after prenatal and perinatal loss

Psychological consequences

Normal vs. pathological grieving processes

Grief is the universal emotional reaction to losing a loved one (Stroebe, Hansson, Stroebe, & Schut, 2001). It is associated with intense psychological pain and an increased risk of developing a number of psychosocial and somatic complaints (Laursen, Precht, Olsen, & Mortensen, 2005; Parkes, 2001; Middleton, Raphael, Martinek, & Misso, 1993; Zisook, & Shuchter, 1993) including increased mortality (Precht, Mortensen, & Olsen, 2003; Lichtenstein, Gatz, & Berg, 1998).

Grief is described in the literature as a temporary, functional disorder with a phasic progression, which is characterized by specific thought and behavioral patterns and serves the integration of a difficult loss experience (Bowlby, 1983; Horowitz, 1997; Klier, Geller, & Ritsher, 2002). We speak of a "normal" course of grieving, in other words appropriately coping with the loss and the resulting reorganization, occurring within 6-12 months after the initiating event (Beutel, 2002). Studies, however, show that the bereaved, despite appropriately coping with the loss, still experience symptoms of grief even years after the loss of a relative, reporting commonly-occurring dreams of the deceased, as well as intense longing for her/him (Zisook, Devaul, & Click, 1982; Zisook, Shuchter, & Lyons, 1987).

The term "*pathological grief reaction*" refers to unusually intense, prolonged, delayed or inhibited reactions to a personal experience of loss. In the past years, two study groups have attempted to develop and empirically validate diagnostic criteria for pathological grief (Horowitz, Siegel, Holen, Bonanno, Milbrath, & Stinson, 1997; Prigerson et al., 1999). The traumatic aspect, however, is specifically accentuated by the described criteria, so that all forms of pathological grief cannot be subsumed under the proposed classification of Horowitz et al. (1997) and Prigerson et al. (1999). There are neither standardized, nosological criteria available for the diagnosis of pathological grief, nor are there treatment guidelines for dealing with it [Beutel, 2002; Kersting, Fisch, Suslow, Ohrmann, & Volker, 2015; Tomita, & Kitamura, 2002). Because of this, the symptom spectrum of pathological grief is referred to in the present literature in multiple ways.

Depression, anxiety and panic disorders, generalized anxiety disorders, post-traumatic

stress disorders, somatoform complaints, and increased alcohol and medication abuse are all clinical correlates of prolonged (chronic) grief (Zisook, Schneider, & Shuchter, 1990). They are often prevalent even 6-9 months after the loss in a clinically-relevant manifestation (Condon, 1986; Lasker, & Toedter, 1991). Characteristics of complicated or traumatic grief include the abrupt change of intrusions (overstimulation through stressful, uncontrollable memories of the deceased person or the closer circumstances of the death) and denial or avoidance of everything, which could bring about memories of the loss (Horowitz, Siegel, Holen, Bonanno, Milbrath, & Stinson, 1997; Kersting et al. 2001).

In the context of a perinatal loss experience, pathological grief reactions can take the following specific forms:

1. Compulsive occupation with thoughts of the dead baby or fetus;
2. Hallucinatory feelings of having "empty arms";
3. Hostility towards clinical personnel or members of the primary family;
4. Feelings of guilt or failure;
5. Desperate search for explanations or negative feelings upon seeing living babies.

Persisting psychosomatic symptoms or manifested psychological disorders, such as depression or anxiety, can present as clinical symptoms of intense pathological grief (Chambers, & Chan, 2004). Negative effects on family relationships and sensitivity to the perception of parental roles were also described.

Clinical consequences

The International Statistical Classification of Diseases and Related Health Problems (ICD-10) (World Health Organization, 1992) places grief reactions under the category of "factors, which influence the state of health and lead to requiring health services" (Z63.4 "Disappearance or death of a family member"). Prolonged and intensified grief reactions are classified as "adaptation disorders" (F43.28). In the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (American Psychiatric Association, 1994), grief is assigned to the category of "further clinically-relevant problems" (V62.82). If "feelings of guilt related to the actions of the survived, thoughts about death, a pathological occupation with feelings of worthlessness, prolonged and marked encroachment of functionality and hallucinatory experiences" are still present two months after the loss, the DSM-IV suggests a diagnosis of major depression (296.2X).

Scientific studies show that many women mourn their child even years after a miscarriage [McCabe, 2002; Kersting et al. 2005). Moreover, 20-30% of all women suffer from significant psychiatric and somatic symptoms after a perinatal loss (Chambers, & Chan, 2004; Turton, Hughes, Evans, & Fainman, 2001). These symptoms are prevalent in a clinically relevant intensity even years after the loss in close to 25% of all women affected by the loss of a child (Clarke, & Williams, 1979; Dorner, & Atwell, 1985; Forrest, Standish, & Baum, 1982). A pathogenic bereavement process, therefore, presents a considerable risk of impairments in the psychological, physical, and social status of affected women (Franche, & Bulow, 1999; Janssen, Cuisinier, de Graauw, & Hoogduin, 1997; Toedter, Lasker, & Janssen, 2001). Data on the prevalence of mental and psychosomatic illnesses after a perinatal loss are presented below.

Depressive reactions can be observed directly after the loss of a pregnancy in 20-36% of all affected women, regardless of it being a stillbirth or miscarriage (Toedter, Lasker, & Janssen, 2001; Beutel, Deckardt, Schaudig, & Rolvering, 1993; Neugebauer et al., 1992). Up to a fifth of the affected women exhibit elevated depression scores a year after the experienced loss (Lasker, & Toedter, 1991; Cougle, Reardon, & Coleman, 2003; Beutel, Deckardt, von, & Weiner, 1995; Beutel, Kuse-Isingschulte, Hahlweg, Stauber, 1995; Hughes, Turton, & Evans, 1999).

Anxiety disorders have been previously

inadequately considered (Geller, Kerns, & Klier, 2004). Due to the small amount of research, a higher risk of developing anxiety symptoms could only be determined with certainty through the fourth month after a miscarriage (Forrest et al., 1982; Beutel, Deckardt, von, & Weiner, 1995; Thapar, & Thapar, 1992; Lee, & Slade, 1996). There is a higher risk of developing an anxiety disorder during the first 6 months after experiencing the loss (Geller, Kerns, & Klier, 2004; Thapar, & Thapar, 1992; Lee, & Slade, 1996).

The risk of developing obsessive-compulsive disorders (OCDs) is significantly higher within the first 6 months after the loss in comparison to non-pregnant women of the general population; 3.5% after pregnancy loss vs. 0.04% in non-pregnant women (Neziroglu, Anemone, & Yaryura-Tobias, 1992).

According to Bowles et al. (2000) up to 10% of all women fulfill the DSM-IV criteria for an acute stress disorder directly after the loss of a pregnancy (< 20th week of pregnancy). Of these, 1% exhibits the signs of a post-traumatic stress disorder after 1 month (American Psychiatric Association, 1994). In a long-term study by Engelhard, van den Hout, & Arntz, 2001), 25% of women (M = 11.4 pregnancy week) fulfilled the diagnostic criteria of posttraumatic stress disorder (PTSD) 1 month after experiencing the loss.

Anxiety and a depressive state after a perinatal loss present themselves frequently in the form of somatic complaints (Beutel, 2002; Thapar, & Thapar, 1992). The correlation between a functional or somatization disorder and unresolved symptoms of grief, however, often remains unrecognized. According to clinical observations, significant somatic or somatoform disorders appear in association with depression, anxiety, and pathological grief (Hunfeld, Wladimiroff, & Passchier, 1997), yet not in the context of normal grieving processes (Beutel, 2002; Beutel, Deckardt, von, & Weiner, 1995; Beutel, Kuse-Isingschulte, Hahlweg, Stauber, 1995).

Factors influencing pathological grief

Despite the frequency of clinically relevant assimilation disorders after perinatal losses, very little is known about the factors influencing pathological grief (Chambers, & Chan, 2004) in comparison to normal grief. Empirical long-term studies are comparatively rare and provide partially contradictory findings due to their divergent samples and/or collection tools (Geller, Kerns, & Klier, 2004; Lee, & Slade, 1996). Manfred Beutel (2002) names the following risk characteristics for complex grief after miscarriages and stillbirths (p.150):

1. Single, adolescent mothers;
2. Low formal education/social status;
3. Conflicting nature regarding the pregnancy (desire to terminate/risk behavior);
4. High stress during the pregnancy/in the past year;
5. Previous miscarriages or stillbirths;
6. No children of their own;
7. Fertility problems;
8. Further unresolved experiences of loss (during childhood, or previous miscarriages or stillbirths of the mother);
9. Uncertain developmental representation;
10. Preexisting psycho-social or psychiatric stress (former depression, anxiety);
11. Stressful concomitant circumstances regarding the loss (no contact with the child or the burial);
12. Insufficient understanding/discussion opportunities with the partner or close family;
13. Discontent with occupational circumstances and the situation at home.

Protective factors for an adaptive grieving process after a prenatal and perinatal loss are considered to be the following:

1. Care and emotional support (Beutel, 2002; Callan & Murray, 2015);
2. A good partnership (Beutel, 2002; Lasker, & Toedter, 2015), Friedman & Gath, 1989; Toedter, Lasker, & Alhadeff, 1988);
3. Support from friends (Lasker, & Toedter, 1991; Day, & Hooks, 1987);
4. Presence of one's own children (Beutel, 2002; Lapple, 1991);
5. Mental and physical premorbid health

(Beutel, 2002).

Grief processing after prenatal and perinatal losses from the perspective of attachment theory

Grief resulting from a perinatal loss experience is explained by attachment theory (Bowlby, 1983) through an already incipient relationship between the mother and the unborn child during the early stages of pregnancy. This dissolution leads to a loss of concrete visions, expectations, and hopes. Bowlby (1983) and Beutel et al. identified the orientation to a growing embryo or fetus in fantasy and reality (e.g., concrete preparations) as a binding affinity (Beutel, 2002; Beutel, Deckardt, Schaudig, Franke, & Zauner, 1992). Pregnancy is seen as a preparatory phase for the mother, and serves as the training of a cognitive and affective representation of herself as caregiver (Bowlby, 1983). Requiring reciprocity, the term attachment is on the other hand reserved for the postnatal relationship between parents and a specific, distinguishable child (Beutel, 2002).

Dealing with the loss of a pregnancy can reactivate earlier (unresolved) losses, such as the loss of one's parents (Bowlby, 1983) or previous miscarriages or stillbirths (Beutel, 2002). Unresolved loss experiences worsen the grieving process. Assimilation disorders, after a perinatal loss, can be traced back to unprocessed loss experiences from the past Bakermans-Kranenburg, Schuengel, & van Ijzendoorn, 1999).

The first studies examining the correlation between mothers with states of disorganized attachment caused by a loss or trauma and the development of binding behavior to their children over the course of the first year are available.

In a long-term study by Hughes, Turton, Hopper, McGauley, and Fonagy (2001), highly significant correlations presented themselves between a previous stillbirth and the mother's unresolved attachment state during the next pregnancy, and the pregnant mother's unresolved binding status and the disorganized attachment behavior of her child at 12 months.

These correlations remained significant even when the demographic variables (depression and anxiety levels, or elapsed time since the stillbirth) were examined (Hughes, Turton, Hopper, McGauley, & Fonagy, 2001). Unresolved loss experiences can be observed in children who experienced disorganized attachment from their parents in the past more frequently than in children whose parents provided organized attachment (primary classification A-B-C) (Main, & Solomon, 1990). Loss experiences in mothers, however, are not a risk factor per se (Ainsworth, & Eichberg, 1991). They only pose a risk to their health when a loss is not fully processed and in turn leads to disorganization in the mental representation of the attachment experience. Because of this, supporting women who have suffered a perinatal loss is a central, important concern in terms of secondary prevention.

A mother's unresolved grief as a risk factor for a subsequently born child

Children born after the loss of a pregnancy are more vulnerable to developing psychological and physical problems. Findings from predominantly uncontrolled, cross-sectional, and long-term studies suggest that disorganization in attachment among small children partially explains this increase in psychological morbidity (Bakermans-Kranenburg et al., 1999; Heller, & Zeanah, 1999; Hughes, Turton, Hopper, & Evans, 2002; Turton, Hughes, Fonagy, & Fainman, 2004). In empirical attachment researches, attachment disorganization in small children has been proven to be a risk factor for infantile developmental disorders (Jacobvitz, & Hazen, 1999; Lyons-Ruth, Easterbrooks, & Cibelli, 1997; van Ijzendoorn, Schuengel, & Bakermans-Kranenburg, 1999).

In an uncontrolled study by Heller and Zeanah (1999), 45% of 19 children aged 12 months and born after a perinatal loss were attached in a disorganized manner. In a controlled study by Hughes Hughes et al. 2001), a significantly higher manifestation of attachment disorganization ($P < 0.04$) presented itself in children born after a perinatal loss. In a

study by Bakermans-Kranenburg et al., after an early perinatal loss, an association was found between the mother's unresolved grief [obtained through Adult Attachment Interviews (AAI)] and attachment disorganization in the child born thereafter (r = 0.30; P = 0.05) (American Psychiatric Association, 1994). These rates are clearly in contrast with the expected percentage of attachment disorganized infants in normal samples, which stands at approximately 15% at the age of 12 months (Heller, & Zeanah, 1999; Hughes et al., 2002).

The correlations between perinatal loss experience, mothers' unresolved attachment status in the subsequent pregnancy, and attachment disorganization in the succeeding child suggest that mothers' unresolved attachment state after experiencing a loss can be classified as a developmental risk for the subsequently child (Bakermans-Kranenburg et al., 1999; Hughes et al., 2001; Heller, & Zeanah, 1999).

In summary, the prenatal or perinatal loss of a child present one of the most common complications of pregnancy (15-20%) (Beutel, 1994;- Swanson, 1999; Nikcevic, 2003) and is associated with considerable psychological consequences. Recent studies show that depression, anxiety, somatic complaints, self-accusations, anger, and conflicts among partners are common reactions (Lasker, & Toedter, 1991; Forrest et al., 1982; Toedter et al., 2001; Beutel, Deckardt, Schaudig, & Rolvering, 1993; Neugebauer et al., 1992; Beutel et al., 1995; Beutel et al., 1995; Hughes et al., 1999; Hughes et al., 2001; Hughes et al., 2002). Furthermore, the perinatal loss of a child can affect the quality of the relationship with the subsequently born child. Preliminary studies show the beyond coincidental high manifestation of disorganized attachment in infants whose mothers experienced a loss (Bakermans-Kranenburg et al., 1999; Hughes et al., 2002).

Psychotherapeutic treatment

Very few controlled and randomized intervention studies after a perinatal loss exist (Beutel, 2002), although practical and economical intervention methods are described in the literature. Previous studies are encouraging and speak of the value of temporary help, although it has not yet been resolved as to which specific treatment elements are the most effective. The most important controlled and randomized intervention studies will be summarized below. Their depiction will be chronological. We will be commenting on each study individually, the differences between the study designs and consistent or contradictory findings.

As one of the first authors, Forrest et al. (1982) researched the effects of one-time grief counseling after a perinatal loss in a controlled and randomized study. The counseling consisted of elements such as encouragement to see and keep the deceased child, give it a name, look at photographs of the child, contact the medical personnel and midwife, and seek counseling with the responsible gynecologist. In total, 50 couples were examined, of whom half were randomly assigned to the intervention group and the other half to the control group. The control group received routine medical care. The therapeutic intervention was performed directly after the loss, and the outcome measurements took place, respectively, 6 and 14 months after the intervention.

The results showed that, 6 months after the loss, the intervention group had significantly lower scores on the anxiety and depression scales and a significantly lower amount of psychological illnesses in comparison to the control group. These differences were, however, no longer existent 14 months after the perinatal loss. At this point in time, 80% of the women had recovered from their symptoms. The authors infer from these findings that the intervention influenced the overall outcome to a lesser extent than the length of the grief reaction.

The study by Forrest et al. (1982) exhibits several flaws. For example, no measurements

were taken before the intervention, although the amount of stress directly after the loss and the question of possible progression predictors are of particular interest. The intervention in the supposed "routine care" is not described any further. Potential effects on therapy in the control group could possibly be blurred. The evaluated intervention in the experimental group is based on recommendations from The National Stillbirth Study Group (Health Education Council, 1979), which were relevant in 1979. Today, these recommendations can no longer be seen as valid.

In 1987, Lake et al. evaluated a manualized intervention, which encompassed 4 sessions over a period of 4-6 months with women after a stillbirth or neonatal loss. The intervention contained the elements of consolation and support, allowing the loss to become real, description of ambivalent grieving processes, support of emotional expression, support of open communication with family members, exploration of the partner relationship and etcetera. In the study, 78 women were included. Half of the subjects were randomly assigned to the intervention group and the other half to the control group. The control group received routine hospital care. The probands were examined by means of a grief questionnaire (self-evaluation) 6 months after the loss experience. However, only 34 (of the original 78) could be included in the follow-up examination (16 in the control group, 18 in the intervention group). The results showed that there was no difference between the control and intervention groups in terms of the total score. Only in 2 subscales of the questionnaire (anger/hostility and physical afflictions) did probands from the intervention group exhibit lower values.

In the study by Forrest et al. (1982), there was also no measurement performed prior to the beginning or at the end of the therapy. Therefore, no information regarding pre-progress and post-progress is available, instead information solely regarding the difference between the groups at the time of catamnesis is available. The high amount of dropouts during the time of catamnesis (more than 50%) does not allow one to draw any general inferences about the effectiveness of the treatment. Moreover, this study did not further describe the treatment in the routine care.

The study by Lilford, Stratton, Godsil, and Prasad (1994) also used a catamnesis study design. In their study, 57 couples who suffered the loss of a child (early pregnancy termination due to medical indications, perinatal death) were randomly assigned to an intervention or control group, respectively. Open-ended, non-manualized, focal counseling with an experienced psychotherapist was offered. The control group received routine hospital care. A follow-up examination was conducted 16-20 months after the intervention, in which structured interviews and self-evaluation methods were utilized for the assessment of grief, anxiety, and depression. In this examination, the women in the treatment and control groups showed no significant differences in terms of the main outcome variables of grief, anxiety, and depression. Nevertheless, data was only collected one single time with a large interval between loss and intervention. Therefore, the study cannot indicate if the length of the grieving process was influenced by the intervention or not. Similar to the results of the aforementioned studies, the results of this are also hardly usable due to a high dropout rate during the catamnesis period (approximately 50% in the intervention group).

Murray, Terry, Vance, Battistutta, and Connolly, (2000) examined 65 fathers and 79 mothers, who either lost a child after the 20th week of pregnancy, or suffered a perinatal or postnatal loss in a prospective long-term study. Due to practical reasons related to the recruiting, the parents were psychologically examined 4 weeks after the loss. The experimental group (n = 84) received an intervention, which aimed at making the loss a reality, and supporting the

expression of emotional pain and the grieving process. This intervention was performed by a specifically trained social worker. The control group (n = 60) received the customary medicinal care. Measurements were taken at 3 stages; before the intervention, and 6 and 15 months after the loss, respectively. The intervention and control group participants were not randomly assigned, but instead consecutively recruited. The comparability of the groups was retroactively reviewed by comparison of important variables. The hypotheses addressed particularly the expectation that serious psychological disorders could be prevented through intervention in high-risk probands. Prospective assessments of risk factors related to a complicated grieving process comprised of lack of social support, ambivalent relationship with the child, traumatic circumstances related to the loss, other difficult life circumstances, problematic personality traits, and unsatisfactory family relationships. Depression, anxiety and psychological symptoms, partner adaptation, and coping strategies were also examined as outcome variables.

The results show that the probands in the experimental group were less burdened in all researched variables than those in the control group. This result could be largely traced back to the fact that the intervention proved itself effective in the probands with a high risk exposure. The probands with a lesser risk exposure, however, showed no difference between the intervention and control groups.

Alongside the proof of the intervention's efficacy, this study also contributes to the question of "Which individuals even show an indication for secondary preventive actions?" Interesting observations have also been reported concerning the differing effects of intervention on men and women. If one puts the methodological shortcomings aside (for example, the formation of the control group), this study is exemplary in its thorough approach and comprehensiveness.

In a controlled study, Carrera, Diez-Domingo, Montanana, Monleon, Minguez, and Monleon (1998) examined the effectiveness of a yearlong intervention. They compared 3 groups of intervention and control 1 and control 2. The intervention group consisted of 23 women who received intervention after a perinatal loss. Control group 1 consisted of 34 women who received no intervention after a perinatal loss, and control group 2 of 37 women who gave birth to a healthy child. Measurements were taken directly after perinatal loss or birth, and 6 and 12 months postpartum. Only the women from control group 1 were examined once 12 months after the loss. The intervention was oriented in accordance with the study by Lake, Johnson, Murphy, & Knuppel (1987) in terms of the following components:

1. Recognition of the child as part of the family
2. The possibility to see and touch the dead infant
3. The possibility to conduct an official burial
4. Psycho-educative components (grieving process)
5. Facilitation of the grieving process
6. Caution regarding a new pregnancy in the subsequent year in order to prevent postponement of the grieving process
7. Encouragement of the parents to freely and openly express their feelings regarding the deceased child

The Beck Depression Inventory was used as the measurement method. The intervention group was shown to exhibit higher depression values directly after the perinatal loss compared to the mothers of healthy children. The intervention group exhibited significantly lower depression values than the women who suffered the loss of a child and received no intervention 12 months after completion of the intervention. By this time, the intervention group's depression values nearly matched those of the control group.

These results clearly indicate the effectiveness of intervention with regard to depressiveness.

The particularity of the study by Carrera et al. (1998) lies in the inclusion of a second control group containing mothers of healthy children. This allows the researcher to prove that through the intervention, the intervention group's depression values after one year lie nearly in non-clinical territory. On the other hand, the question remains open as to what explains the increased long-term effectiveness of the intervention in comparison to the results from other studies.

First, the considerably longer duration of intervention is apparent. The authors unfortunately provide no information on whether a higher amount of therapy is behind the longer duration. This could possibly be the reason for the higher (more long-term) effectiveness. Furthermore, detailed information is missing regarding the assignment of participants to their respective groups. It is not explicitly stated that the intervention group and control group 1 were indeed randomly formed. Since control group 1 was only examined once (12 months after the loss), it is impossible to determine whether the intervention group and the group of women, who lost a child and received no intervention, were different before the intervention.

Swanson (1999) examined the effect of 3 1-hour long supportive counseling sessions within the scope of a randomized controlled study. Of 242 women who suffered a miscarriage (≤ 20th week of pregnancy) and participated in the study, 116 were randomly assigned to the intervention group, and 126 to the control group. An empirical miscarriage process model (Swanson, 1991; Swanson-Kauffman, 1986) derived by the author served as treatment guidelines. This model contained the elements of realization of the loss's inescapability, loss experience as a crisis and chance, social disclosure of the loss experience, use of help offered, and clarification of the question concerning another pregnancy attempt. The control group did not receive intervention. Measurement was conducted directly after the beginning of the study and before the first intervention, 6 weeks later, 4 months later, and after a year. Self-evaluation questionnaires were used as the measurement instrument. The documented variables were feeling of self-esteem, mood, effects of the loss, and etcetera. The examined hypotheses refer to the effectiveness of the intervention, and the influence of time and the diagnostic measures on the process.

The results concur with important points from the preliminary examination. In particular, it shows that the influence of the intervention is measurable after only 6 weeks, but not after more than 4 months or after a year. These findings confirm the results of the study by Forrest et al. (1982), which were also unable to substantiate any differences between the intervention and control groups after catamnesis intervals of 6 and 14 months. In contrast, time seems to have a more substantial healing effect. It significantly impacts self-worth, anxiety, depression, anger, and confusion after 4 months and after a year. Hence, the study by Swanson provides proof that reorganization over the course of time is possibly a more important factor for the grieving process than the (mostly very short) interventions.

The summarizing of the results of the depicted studies shows that numerous studies indicate the minimal effectiveness [e.g., Lake et al., (1987)] and/or short longevity (Forrest et al., 1982) of a short intervention after perinatal loss. Time, as a healing factor, seems to play a more important role (Swanson, 1999). This is the reason why differences are no longer found between control and intervention groups in several studies after a long catamnesis. It is conclusive that the influence of time as a distinct factor was examined and confirmed in its significance in later studies (Swanson, 1999). This finding concurs with the clinical experience that grief resulting from a loss paired with the absence of aggravating risk factors frequently

leads to a new equilibrium. This is due to the fact that the goal of the grieving process is in fact a "reparation process". The question of reviewing effectiveness in short-term interventions, therefore, shifts in the direction of the question of which social circle exhibits specific risk factors and what specific provisions of care they should receive within the scope of secondary prevention (Beutel, 2002).

Murray et al. (2000) evaluated an intervention and simultaneously examined risk factors of the grieving process. This study provides results, which could also possibly provide a key to understanding the contradictory results of other studies. This shows that the effectiveness of the intervention is verifiable in the high-risk group, yet not in the low-risk groups. In the latter, a normal grieving process virtually overtakes the results of the therapy. When inconvenient risk constellations are present, which prevent the normal course of the grieving process, interventions are indicated and promising.

The methodological quality of the referred studies differs. A number of methodological discrepancies have already been outlined. According to a survey study from the Cochrane Database of Systematic Reviews released in 2004, none of the portrayed studies adequately fulfills the methodological standards, which must be applied to a controlled, randomized intervention study. These concern primarily:

1. Sample size (range and statistic power)
2. Description of the selection criteria; use and description of standardized (reliable, valid, and objective) outcome measures
3. Description of outcome measures (information regarding reliability and validity)
4. Randomized allocation of the treatment and control groups
5. Comparability (parallelism) of the treatment and control groups
6. Detailed description of the intervention
7. Information regarding further interventions
8. Blind data collection and analysis concerning the group membership
9. Examination and indication of systematic differences between the study's participants and those who chose not to participate

According to the Cochrane Review, these discrepancies do not allow for a clear and evidence-based assertion regarding the superiority of either counseling focused on perinatal grief processing or psychotherapeutic intervention over nonspecific psychosocial care. A straightforward assessment of the results from various intervention strategies, and the differential indicators for various therapeutic approaches is also virtually impossible regarding the aforementioned conclusions at the present time.

In conclusion, the hitherto performed controlled and randomized studies exhibit explicit methodological inadequacies, limiting the generalizability of the results (Chambers, & Chan, 2004; Schneiderman, Winders, Tallett, & Feldman, 1994). In particular, the perspective of the importance of therapeutic measures for the mental health of subsequently born children was very rarely taken into consideration. Due to this, the continued performance of methodologically sound studies regarding the validation of the effectiveness of psychosocial interventions after perinatal loss, especially with the aspect of secondary prevention as a research desideratum, should be considered.

Conclusion for use in practice

The prenatal or perinatal loss of a child is one the most common pregnancy complications. It is associated with considerable psychosocial consequences including depression, anxiety, somatic complaints, self-accusations, anger, and partnership conflicts. Furthermore, the prenatal or perinatal loss of a child can affect the quality of the relationship with a subsequently born child. Despite the high risk of developing a pathological grief reaction and other psychological disorders, neither psychosocial interventions nor counseling options are part of a routine medicinal care in Germany. Advisory

services should be offered to women at the very least when the corresponding risk constellations are present.

Conflict of Interests

Authors have no conflict of interests.

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