

Original Research Reports

Shared or Discordant Grief in Couples 2–6 Years After the Death of Their Premature Baby: Effects on Suffering and Posttraumatic Growth

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Background: *The loss of a baby causes severe short- and long-term distress to parents and their marital relationship, but little is known about how this distress is shared between spouses. The authors hypothesized that the grief-related concordance within a couple 2 to 6 years after the loss of a premature baby could be an indicator of shared emotional distress within a couple.*

Objective: *The authors investigated the long-term grief experience among couples. Method:* *A group of 44 parents (22 couples) were assessed by questionnaire regarding grief, suffering, post-traumatic growth, and affective symptoms, and semistructured interviews with 6 couples added qualitative information about processes within couples. Results:* *The extent of grief concordance was found to be related to different patterns of suffering and posttraumatic growth within couples. Conclusion:* *The emotional exchange between partners after the loss of the child appears to be crucial for a process of concordant grief, which in turn is associated with a more synchronous process of individual posttraumatic growth* (Psychosomatics 2009; 50:123–130)

Bereavement—the loss of a loved one through death—is a universal human experience. Research on bereavement has burgeoned in the last 20 years and has brought some insight into processes of short- and long-term effects of loss. Three main types of factors have been identified as potentially affecting risk for outcomes of bereavement.¹ Individual factors include gender and characteristics before the death; these include emotional stability, religious belief, and self-esteem. Situational factors related to the death include whether the death was sudden or anticipated. Interpersonal factors, such as the availability of social and emotional support from partner, family, and friends, are also important. Although it is well known that in bereavement, in general, support from one's partner is one of the most important factors protecting against enduring grief and distress, most research to-date has focused on factors

related to the person or the situation causing bereavement.^{2–7}

After the loss of a child, several adverse effects on the parents' relationship have been described; these include increased emotional distance between partners, or even separation.⁸ However, little is known about patterns of distress within couples.⁹ It has been suggested that problems may arise when grieving is incongruent between partners; that is, one partner is less affected by the death, or, at least,

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is perceived to be so by the other partner¹⁰ Specifically, the partner who is more affected by the death (typically the mother) attributes the other partner's response as indicating indifference, thus exacerbating her distress, whereas the less-affected partner becomes increasingly frustrated or angry. To-date, there has been no empirical support for this suggestion. However, it is consistent with several studies reporting that better communication between parents after the loss of a child is associated with more favorable outcomes. For example, it has been reported that couples who have more positive attitudes toward communicating their grief show less severe grief reactions in the longer term than do other couples, and they also report greater marital satisfaction.¹¹

The grief of parents in the aftermath of the death of their child is considered as an archetypal example of human suffering. Suffering is a uniquely individual experience, but it can be shared with others, as expressed in proverbs like "suffering shared is suffering halved." We have developed and validated a novel nonverbal measure of suffering, called the Pictorial Representation of Illness and Self Measure (PRISM),^{12,13} which was developed to assess relevant aspects of suffering, such as intrusion or loss of control, in patients with physical illness or alcohol dependence,¹⁴ as well as in parents after the death of their baby.¹⁵ In this study, PRISM was used for the first time to assess interactive effects on suffering within couples after the loss of a child.

Although the death of a child is devastating, many parents also report positive aspects of this experience. In a cross-sectional study of 109 Australian women who experienced stillbirth or neonatal death of a baby, 91% saw the death of their baby as the worst thing that had ever happened to them. However, 68% reported that they were also able to attribute something positive to the experience. In recent years, there has been an increasing interest in systematically evaluating positive aspects of the aftermath of a trauma. An example is the concept of posttraumatic growth and the development of instruments to measure this.¹⁶⁻²⁰ Most research on posttraumatic growth has focused exclusively on individuals, without considering the impact of their social supports. This lack of a systemic perspective has been criticized by several experts.^{21,22} Few studies have focused attention on the impact of social support between marital partners on the development of posttraumatic growth.²³ Personal growth among partners of women with breast cancer was correlated with the depth of marital commitment and the extent of posttraumatic growth in the wife.²³ In a study assessing 67 parents after the loss

of a child, most parents reported an increase in personal growth due to the loss of the baby.²⁰ The longer the time since bereavement, the more perception of benefit was reported; no gender differences were found. How are these positive-response experiences after the loss of a baby transmitted between the spouses? The current literature reveals very little. To the best of our knowledge, interactive effects on posttraumatic growth between partners after the death of a child have not previously been studied.

This study was part of a larger project involving 92 parents of prematurely-born children, some of whom had died.²⁴ We recently published results examining how parents respond to the death of a premature baby, emphasizing similarities and differences between mothers and fathers.¹⁵ On the basis of the background just described, our aim in this study was to examine how distress after the loss of a baby was shared within a couple 2 to 6 years after the loss. We assumed that where couples were discordant in their grief, this discordance was likely to reflect less emotional exchange between the partners. We hypothesized that those couples who were discordant in their grief would, relative to those who were concordant in their grief, also show greater differences in affective disturbance, suffering, and posttraumatic growth.

METHOD

Sample

The study was approved by the Institutional Review Board of the University Hospital of Zurich, Switzerland. The sample was derived from the one collected for a wider study of neonatal bereavement²⁴ and was drawn from parents who had given birth to a baby at 24-26 weeks' gestation between January 1, 1998 and December 31, 2002 in the neonatology clinic at the Zurich, Switzerland, University Hospital. All parents (mothers and fathers) with sufficient command of German to fill in a questionnaire were contacted by mail. Of a total of 72 parents who had lost their premature baby, 54 filled in and returned the questionnaire (response rate: 75%). Nonparticipants did not differ from the study sample regarding sex, age, or time since loss of their baby. Of the 54 respondents, 10 had no partners and were therefore excluded from the present study, leaving 22 couples. All couples were married and lived together at the time of assessment. Characteristics of the parents are presented in Table 1. Of the 22 pregnancies, 4 were twin pregnancies, and 1 was a triplet. Parents in the sample lost a total of 28 babies; their mean gestation age

was 25.3 weeks (standard deviation [SD]: 0.9), and mean birth weight was 699 g (SD: 132; range: 450–1,080).

Instruments

Parental grief was assessed with the Münchner Trauer-skala (MTS),²⁵ developed from the short form of the Perinatal Grief Scale (PGS).²⁶ The MTS is the best-validated German questionnaire for assessment of perinatal grief. The scale has 22 items, scored on a 1–5 Likert scale, giving a score range of 22–110. It has five subscales (1: sadness; 2: fear of future loss; 3: guilt; 4: anger; and 5: search for meaning), but because the scores on each of these was highly correlated with the total score, only the last is reported in this article.

Suffering Through Loss of the Baby This was assessed with a modified version of the PRISM.^{12,13} In the original test, applied with people who have an illness, subjects are shown a white four-sided metal board with a fixed, yellow disk 7 cm in diameter at the bottom right-hand corner. Subjects are asked to imagine that the board represents their life as it was currently, and the disk represents their “Self.” Subjects are then handed a red disk, 5 cm in diameter, asked to imagine that the red disk represents their illness, and asked, “Where would you put the Illness disk, to show its importance in your life at the moment?” The main quantitative outcome measure is the distance between the centers of the two disks representing “Self” and “Illness” (for ease of description, this measure is called the Self-Illness Separation [SIS]). A modified, paper-and-pencil version of the PRISM task, designed for unassisted completion, has recently been validated.²⁷ This modified version of the PRISM was used in the present study. A rectangle 10 cm × 7 cm, marked out in the questionnaire

pack, was labeled “Your Life,” and a circle, 2 cm in diameter in the bottom-right corner, was labeled “Self.” Parents were asked to place a cross in the rectangle to express the place of their dead baby in their lives. The distance between the “Self” circle and the cross representing the baby was termed the “Self–Baby Separation” (SBS) and, as with the original version of PRISM, smaller SBS was taken to indicate greater suffering. SBS could range between 0 and 8.7 cm.

Posttraumatic Growth This was assessed by the German version of the Posttraumatic Growth Inventory (PTGI), which is the most-used and best-validated questionnaire assessing posttraumatic growth.^{17,28} It consists of a global score (PTGI–Tot) with 21 items that are rated on a Likert scale from 0 (not true) to 2 (completely true); the total score ranges from 0 to 42. There are five subscales, but because each of these correlated highly with the total score, further calculations were performed using only the total score (PTGI–Tot).

Depression and Anxiety The Hospital Anxiety and Depression Scale (HADS)²⁹ was used as a valid and reliable measure of depression (7 items) and anxiety (7 items). The range for both scales is 0 to 21. Following the standard convention,³⁰ scores of 8–10 on each subscale were taken to indicate a possible clinical depression or anxiety, and scores >10 were taken to indicate probable caseness.

Statistical Analysis

With the exception of the descriptives and intercorrelations of relevant parameters for all parents, the analyses were performed on a paired-samples datafile. The calculations were done with SPSS Version 12. Two groups were identified, based on the extent to which partners in each couple differed in their grief scores, based on a median split of the difference between partners’ MTS scores. Couples with an MTS-score difference over 8 fell into the Discordant (D) group (N = 10), whereas the other couples fell into the Concordant (C) group (N = 12). The group sizes differ because three couples had the same MTS difference of score 8. Analyses of variance with repeated measures on PRISM, PTGI, and HADS scores for gender (within-couple effects) and comparison between groups of different grief concordance were performed, including interaction effects between gender and grief concordance. To further assess adaptation within couples of different levels of grief concordance, paired-sample correlations were calculated separately for the two groups for PRISM, PTGI, and HADS.

TABLE 1. Characteristics of Parents (N = 44)

Variable	M (SD) or N	%
Age, years		
Mothers	34.1 (4.7)	
Fathers	37.7 (8.7)	
Education		
Minimum, 8 years	1	2
Professional, 10–12 years	22	50
Further education, 12–15 years	17	39
University	4	9
Other children		
None	6	14
1–5 children	38	76
Time since death of baby, years	3.4 (1.2)	

SD: standard deviation.

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RESULTS

Characteristics for All Parents (N = 44)

At 2 to 6 years after the death of their premature baby, MTS bereavement scores of the whole sample were still high (mean: 57.5; SD: 12.5; range: 33–82). Mean PRISM distance between Self and Baby (SBS) was 4.3 cm (range: 0–8.7 cm; SD: 2.1), indicating that, for most parents, the baby still had a central place in their life as parents. Nine parents (20%) had an SBS of <2 cm, indicating substantial suffering.

The mean total PTGI score was 22.8 (SD: 7.4; range: 9–41). Mean HADS Depression score was 3.3 (SD: 2.7; range: 0–11); three parents (7%) scored over 7, indicating a possible depressive disorder. Mean HADS Anxiety score was 5.7 (SD: 2.9; range: 1–12); nine parents (20%) scored over 7, pointing toward a possible anxiety disorder. A HADS score over 10, indicative of probable anxiety disorder, was seen in three parents (7%).

Table 2 shows the relevant intercorrelations for MTS, HADS, PRGI, and PRISM. No effects of time since loss of the baby and MTS, PTGI, HADS, and PRISM-SBS were found.

Sociodemographic Differences Between Couples With Concordant (C) and Discordant (D) Grief

No differences were found between the C and D groups for sociodemographic variables, and the average time since death of the baby was similar for both groups. Relative to the Concordant group, the Discordant group showed a tendency to have no other children (D: 5 couples, C: 1 couple; Fisher's exact test $p = 0.06$).

Effects of Gender and Grief Concordance on Suffering (PRISM), Posttraumatic Growth (PTGI), and Affective Symptoms (HADS)

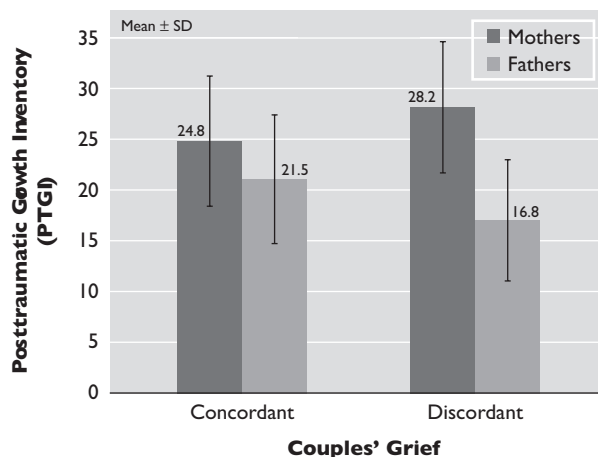
Overall, suffering did not differ between mothers and fathers or between the Concordant (C) and Discordant (D)

group. However, there was a significant interaction between gender and grief-concordance group. In couples with discordant grief (D), mothers' suffering was rated as greater than that of fathers, whereas the opposite was found in the Concordant grief (C) group (Figure 1).

Mothers showed greater posttraumatic growth than fathers. As with suffering, PTGI scores did not differ overall between the C and D groups. However, there was, again, a significant interaction between gender and C and D groups. In the Concordant group, there was little difference between male and female partners in their PTGI scores. In contrast, when compared with the Concordant group, PTGI scores in the Discordant group were significantly higher for mothers but significantly lower for fathers. In Discordant couples, higher differences in posttraumatic growth were found than in Concordant couples (Figure 2).

For HADS Depression and HADS Anxiety, no significant effects were found for gender, couple's grief concordance, or the interaction between them.

FIGURE 1. Posttraumatic Growth (PTGI) in Couples With Concordant (N = 12) and Discordant (N = 10) Grief



For gender: $F[1, 20] = 19.51$; $p < 0.001$; and Grief group: $F[1, 20] = 0.10$; NS; Interaction: $F[1, 20] = 5.87$; $p < 0.05$.

TABLE 2. Intercorrelations (Spearman ρ) of Grief (MTS), Depression and Anxiety (HADS), Posttraumatic Growth (PTGI), and the PRISM Measures for All Parents (N = 44)

	MTS	HADS Depression	HADS Anxiety	PTGI
HADS Depression	0.63**			
HADS Anxiety	0.47**	0.69***		
PTGI	0.38*	-0.12	-0.03	
PRISM	-0.60**	-0.29(*)	-0.14	-0.27(*)

MTS: Münchner Trauerskala; HADS: Hospital Anxiety and Depression Scale; PTGI: Posttraumatic Growth Inventory; PRISM: Pictorial Representation of Illness and Self Measure.

* $p < 0.10$; ** $p < 0.01$; *** $p < 0.001$.

Adaptation Within Couples With Concordant (C) and Discordant (D) Grief

If couples were concordant for grief (C), they were also concordant for posttraumatic growth, suffering, depression, and anxiety. Couples discordant in grief (D) were also less concordant in suffering, depression, and anxiety. PTGI scores for mothers and fathers in the Discordant group were negatively correlated (Table 3).

In Table 3, the first two rows present data from the whole parents sample ($N=22$ couples), assessing differences (first row) and correlations (second row) within couples.

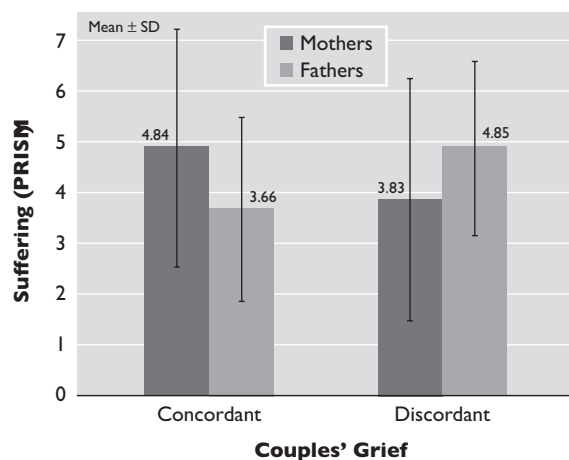
Qualitative Interviews

Semistructured interviews were conducted with 12 parents (6 couples). The interviews focused on the development of partnership, suffering, and processes of growth. All interviews were audiotaped and analyzed with qualitative techniques.³¹ The results will be presented in detail elsewhere.³² To illustrate processes associated with discordant and concordant grief, we present two short, narrative case-histories: one from the couple showing the greatest concordance in their grief scores and one from the couple showing the greatest discordance.

Concordant Couple: Mother's MTS Score: 66;
Father's MTS Score: 62

Jessica and Marco, the twins and first babies of Antonio and Andrea, died 5 years ago, at 24 weeks' gestation.

FIGURE 2. Suffering (PRISM Measure) in Couples With Concordant ($N=12$) and Discordant ($N=10$) Grief



For gender: $F[1, 20]=0.03$; $p < 0.86$; and Grief group: $F[1, 20]=0.01$; NS; Interaction: $F[1, 20]=6.00$; $p < 0.05$.

When Andrea got pregnant, her 3-year-relationship with Antonio was in severe crisis, and they had been making plans to separate. Because of the unexpected pregnancy, the couple finally decided to stay together. At only 23 weeks' gestation, the obstetrician detected a problem with perfusion of the placenta and sent Andrea as an emergency to the university hospital; 8 days later, a caesarean section had to be performed. Marco died immediately after birth, but Jessica survived for 5 more days. In the first days and weeks after the deaths, Andrea and Antonio had a lot of support from their families. Eighty-five relatives and friends participated in the funerals of Jessica and Marco. Both partners felt much grief, but although Andrea felt the need to talk about her grief, Antonio tried at first to hide his deep sadness, trying to be a "strong" and supportive husband. However, Andrea perceived her husband as distant and unemotional, and, 3 months after the death of the twins, she confronted him with her feelings that she was having to grieve alone. This led to an emotional outburst by Antonio, who cried in front of Andrea for the first time.

After this, the couple started to share feelings regularly about the death of their children. For both partners, the deaths led to enormous changes in their personal relationships. With many friends, emotional exchange and closeness increased, while other relationships became more distant. Both partners mentioned separately that they now feel much closer to their spouse than before the death of their twins. Interestingly, each partner seemed to have tried to find meaning in the deaths in a similar way—that the deaths had brought them closer as a couple and had made their relationships even better for the children that followed. Although the couple now has two boys, ages 2 and 4 years, the twins they lost remain very much a part of their family.

Discordant Couple: Mother's MTS Score: 73;
Father's MTS Score: 33

George and Hanna lost their premature baby, Luca, 3 years ago. At the time of the birth, both parents were 27, and had been married for 2 years; it was Hanna's first pregnancy as well as the couple's first baby. During the pregnancy, Hanna developed a severe form of preeclampsia. At the time of the interview, Hanna was pregnant for the second time.

Hanna is a midwife and was extremely happy when she became pregnant for the first time. Not only professionally but also from a personal and even a philosophical perspective, birth was a major topic in her life. During her pregnancy, she enjoyed an intense relationship with her

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baby and had planned early-on in the pregnancy to give birth at a clinic specializing in underwater delivery. Her husband George was a successful banker. During Hanna's pregnancy, he changed jobs and was very absorbed in his work. Hanna's preeclampsia was an enormous strain on both partners. Within 2 days of the onset of symptoms, a caesarean section had to be done to save Hanna's life. Luca died 14 hours after birth. George and Hanna wanted to participate in the burial, and (not in keeping with normal procedures), even carried Luca's dead body out of the hospital themselves in a coffin.

For the first week after Luca's death, the bereaved parents were supported only by George's parents. They buried Luca alone, and explicitly specified on the obituary notice that they did not wish to receive any cards or letters of condolence. Although George returned to work after 3 days without telling anybody what had happened, Hanna had very strong feelings of grief and sadness for many months. The main ruminating question was: Why did this happen to me? Even at the time of the interview, 38 months after Luca's death, her level of suffering was still very high. Since Luca's death, she had suffered from several physical problems, such as chronic pain from a herniated disk in her back, together with fatigue and extremely irregular periods. The couple talked very little about Luca's death. During their interviews, both mentioned that they were used to solving problems alone and felt embarrassed to talk about their private problems with other people. At 6-to-9 months after Luca's death, George started to get annoyed when Hanna still ruminated about the circumstances and the meaning of Luca's death. From time to time, George also thought about Luca, but he "could put this aside." Both parents were anxious about the second pregnancy, but felt positive that the outcome would be better this time.

DISCUSSION

The present study examined effects of grieving within couples on their patterns of suffering and posttraumatic growth after the loss of a baby. To our knowledge, this is the first study to test empirically the so-called "incongruent grieving" hypothesis, which postulates dyadic problems due to marked differences in couples' grief after the loss of a child.

In contrast to most studies of bereavement in parents after the loss of a baby, our analyses have been done with the pair of parents as the relevant unit of analysis, rather than comparing groups of mothers and fathers. Also, as far as we know, this study is the first in which suffering has been directly quantified. However, the present study also has several limitations that must be considered when interpreting the results. The sample size of 22 couples is relatively small, and selection bias is possible because this represents only 61% of the 36 couples who were contacted. No information is available on the couples who declined to participate. It is possible that those couples who chose to take part in the study had more stable relationships or a more positive outlook. However, the study sample yielded a wide range of distress in terms of grief scores and considerable variation in congruity of scores between partners.

The novel visual instrument, PRISM, was validated primarily as an instrument to assess suffering in physical illness.^{13,27,33} In this study, however, we used PRISM for the first time to assess suffering due to emotional loss by measuring the place of a lost child. Bereaved parents understood the "presence" of their baby 2-to-6 years after the death as a representation of their grief; this finding was demonstrated in a previous article.¹⁵ In 54 bereaved parents, including the 44 parents presented in this study, there were correlations of PRISM-SBS with measures of grief

TABLE 3. Differences and Associations of Grief (MTS), Affective Symptoms (HADS), Posttraumatic Growth (PTGI), and PRISM Within Couples (N = 44)

Measure	<i>t</i> -test Within Couples (N = 22)	Pearson <i>r</i> Within Couples (N = 22)	Couples' Grief	
			Concordant (N = 12) Pearson <i>r</i> Within Couples	Discordant (N = 10) Pearson <i>r</i> Within Couples
MTS	3.24**	0.52*	0.90***	0.47
HADS Depression	0.87	0.68***	0.85***	0.51
HADS Anxiety	1.13	0.14	0.28	0.04
PTGI	3.80***	0.10	0.49	-0.21
PRISM	0.36	0.39(*)	0.60*	0.39

MTS: Münchner Trauerskala; PTGI: Posttraumatic Growth Inventory; HADS: Hospital Anxiety and Depression Scale; PRISM: Pictorial Representation of Illness and Self Measure.

p* < 0.10; **p* < 0.001.

(MTS) and posttraumatic growth (PTGI) as well as HADS Depression (for mothers only). In multiple-regression analysis, only MTS grief contributed significantly to the variance of the PRISM-SBS, indicating that the Baby disk for these parents represented the painful memory of their baby, and not a positive presence or positive closeness to the baby. This fact also contrasts with the meaning of the Baby disk in the subsample of parents ($N = 38$) whose premature child survived: PRISM-SBS for these parents was found to be smaller (2.0; SD: 1.0 versus 4.4; SD: 2.2; $t = 6.2$; $p < 0.001$), and it did not correlate with measures of mental distress (HADS) or growth (PTGI; unpublished data), indicating that, for the parents in this case, the Baby disk signified the actual physical and mental presence of their (living) child.

Our results support the “incongruent grieving” hypothesis formulated by Peppers and Knapp.¹⁰ At 2 to 6 years after the loss of a baby, couples who were more discordant in their grief were also more discordant in depression and suffering (Table 3). It has been suggested that fathers are less affected than mothers by the death of a baby.^{2,4} In our study, this finding applied to discordant couples, but not to the concordant ones, where fathers suffered more than mothers (Figure 1). Interestingly the global burden of suffering for concordant and discordant couples is similar, but, depending on the exchange of grief experiences, the burden of suffering is shared differently between the partners. These results indicate that suffering is determined by social interaction as well as by biological factors (the latter predominantly affecting mothers). Where couples differ considerably in their grief, it may be that the father is less likely to acknowledge the extent of his distress, perhaps trying to appear “strong,” as in the first case-vignette above.

Posttraumatic growth is commonly greater in women than men, and this was also the case in the present study. This was also detected in our sample, where mothers had higher growth than fathers. However, comparing concordant and discordant groups, there were substantial differences between posttraumatic growth of mothers and fathers, resulting in a significant group \times gender interaction

(Figure 2). This suggests that the quality of a couple’s grief process has marked effects on individual parents’ posttraumatic growth. In concordant couples, as illustrated in the second case-vignette, both partners share a process of growth. In discordant couples, the processes of growth are not connected, so that the loss of the baby triggers processes that separate the individual world of both partners and might result in low satisfaction with the relationship, or even separation.

Earlier studies have reported the positive effects of having other children or becoming pregnant again fairly soon on couples’ grief after the loss of a baby.³⁴ Our own findings are consistent with this, although they failed to reach statistical significance, most likely because of the small sample size: only one concordant couple (8%) was childless at the time of assessment, as compared with 5 (50%) of discordant couples. Having other children might have positive effects in terms of distracting parents from ruminating about the dead baby and directing attention toward the living children. Also, because of psychophysiological factors,³⁵ women who show intense grief may have more difficulty conceiving than those experiencing less grief. Furthermore, among discordant couples, differences in grief and emotions are likely to result in less frequent sexual intercourse.³⁵

In conclusion, the results of our study with a relatively small sample of parents indicate that among couples whose prematurely-born baby has died, the way that the partners experience and share their grief can profoundly influence not only their suffering but also their posttraumatic growth. From a systemic perspective, emotional exchange between partners about the loss of the child appears to be crucial for a process of concordant grief, which, in turn, is associated with a more synchronous process of individual posttraumatic growth. Clinicians treating parents in the aftermath of the loss of a baby should be aware of the importance of shared grief between spouses after the loss of a baby. Further studies with larger study samples, and preferably with longitudinal design, are needed to investigate in depth the significance of shared grief within couples after the loss of their infant.

References

1. Schut H., Stroebe M., von den Bout J, et al: The efficacy of bereavement interventions: determining who benefits, in *Handbook of Bereavement: Consequences, Coping, and Care*. Edited by Stroebe M. Washington, DC, Am Psychological Assoc, 2001, p 705–737
2. Vance JC, Boyle FM, Najman JM, et al: Gender differences in parental psychological distress following perinatal death or sudden infant death syndrome. *Br J Psychiatry* 1995; 167:806–811
3. Parkes CM: Bereavement in adult life. *BMJ* 1998; 316(7134): 856–859

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4. Beutel M, Willner H, Deckardt R, et al: Similarities and differences in couples' grief reactions following a miscarriage: results from a longitudinal study. *J Psychosom Res* 1996; 40:245–253
5. Walsh K, King M, Jones L, et al: Spiritual beliefs may affect outcome of bereavement: prospective study. *BMJ* 2002; 324(7353): 1551
6. Beutel M, Deckardt R, Von RM, et al: Grief and depression after miscarriage: their separation, antecedents, and course. *Psychosom Med* 1995; 57:517–526
7. Engler A, Lasker J: Prediction of maternal grief in the year after a newborn death. *Illness, Crisis and Loss* 2000; 8:227–243
8. Murphy S, Johnson L, Wu L, et al: Bereaved parents' outcomes 4 to 60 months after their children's death by accident, suicide, or homicide: a comparative study demonstrating differences. *Death Stud* 2003; 27:39–61
9. Vance JC, Boyle FM, Najman JM, et al: Couple distress after sudden infant or perinatal death: a 30-month follow up. *J Paediatr Child Health* 2002; 38:368–372
10. Peppers LG, Knapp RJ: Husbands and wives: incongruent bonding, in Motherhood and Mourning. Edited by Peppers LG, Knapp RJ. New York, Praeger, 1980, pp 66–79
11. Kamm S, Vandenberg B: Grief communication, grief reactions, and marital satisfaction in bereaved parents. *Death Stud* 2001; 25:569–582
12. Büchi S, Sensky T, Sharpe L, et al: Graphic representation of illness: a novel method of measuring patients' perceptions of the impact of illness. *Psychother Psychosom* 1998; 67:222–225
13. Büchi S, Buddeberg C, Klaghofer R, et al: Preliminary Validation of PRISM (Pictorial Representation of Illness and Self Measure): a brief method to assess suffering. *Psychother Psychosom* 2002; 71:333–341
14. Reinhardt S, Bischof G, Grothues J, et al: Performance of the Pictorial Representation of Illness and Self Measure in individuals with alcohol dependence, alcohol abuse, or at-risk drinking. *Psychother Psychosom* 2006; 75:249–256
15. Büchi S, Morgeli H, Schnyder U, et al: Grief and posttraumatic growth in parents 2–6 years after the death of their extremely premature baby. *Psychother Psychosom* 2007; 76:106–114
16. Calhoun LG, Tedeschi RG: The foundations of posttraumatic growth: new considerations. *Psychol Inquiry* 2004; 15:93–102
17. Tedeschi RG, Calhoun LG: The Posttraumatic Growth Inventory: measuring the positive legacy of trauma. *J Trauma Stress* 1996; 9:455–471
18. Tedeschi RG, Calhoun LG: Posttraumatic growth: conceptual foundations and empirical evidence. *Psychol Inquiry* 2004; 15:1–18
19. Park CL, Cohen LH, Murch RL: Assessment and prediction of stress-related growth. *J Pers* 1996; 64:71–105
20. Polatinsky S, Esprey Y: An assessment of gender differences in the perception of benefit resulting from the loss of a child. *J Trauma Stress* 2000; 13:709–718
21. McMillen JC: Posttraumatic growth: what it is all about. *Psychol Inquiry* 2004; 15:48–52
22. Wortmann CB: Posttraumatic growth: progress and problems. *Psychol Inquiry* 2004; 15:81–90
23. Weiss T: Correlates of posttraumatic growth in husbands of breast cancer survivors. *Psychooncology* 2004; 13:260–268
24. Jenewein J, Mörgeli HP, Fauchère JC, et al: Parents' mental health after the birth of an extremely pre-term child: a comparison between bereaved and non-bereaved parents. *J Psychosomat Obstet Gynecol* 2008; 29:53–60
25. Beutel M, Will H, Volkl K, et al: [Assessment of grief exemplified by pregnancy loss: development and initial results on the validity of the Munich, Germany, Grief Scale]. *Psychother Psychosom Med Psychol* 1995; 45:295–302
26. Potvin L, Lasker J, Toedter L: Measuring grief: a short version of the Perinatal Grief Scale. *J Psychopathol Behav Assess* 1989; 11:29–45
27. Rumpf HJ, Lontz W, Uessler S: A self-administered version of a brief measure of suffering: first aspects of validity. *Psychother Psychosom* 2004; 73:53–56
28. Maercker A, Langner R: Persönliche Reifung (Personal Growth) durch Belastung und Traumata: Validierung zweier deutschsprachigen Fragebogenversionen. *Diagnostica* 2001; 47:153–162
29. Zigmond AS, Snaith RP: The Hospital Anxiety and Depression Scale. *Acta Psychiatr Scand* 1983; 67:361–370
30. Herrmann CH: International experiences with the Hospital Anxiety and Depression Scale: a review of validation data and clinical results. *J Psychosom Res* 1997; 42:17–41
31. Mayring P: Qualitative Inhaltsanalyse: Grundlagen und Techniken. Weinheim, Beltz, 2003
32. Glaser A, Bucher HU, Mörgeli HP, et al: Loss of a preterm infant: psychological aspects in parents: a qualitative study. *Swiss Med Wkly* 2007; 137:392–401
33. Büchi S, Villiger P, Kauer Y, et al: PRISM (Pictorial Representation of Illness and Self Measure): a novel visual method to assess the global burden of illness in patients with systemic lupus erythematosus. *Lupus* 2000; 9:368–373
34. Franche RL: Psychologic and obstetric predictors of couples' grief during pregnancy after miscarriage or perinatal death. *Obstet Gynecol* 2001; 97:597–602
35. Sanders KA, Bruce NW: A prospective study of psychosocial stress and fertility in women. *Hum Reprod* 1997; 12:2324–2329