

## Stillbirth, neonatal death and Sudden Infant Death (SIDS): parental reactions

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Dyregrov, A. & Matthiesen, S. B.: Stillbirth, neonatal death and Sudden Infant Death (SIDS): parental reactions. *Scandinavian Journal of Psychology*, 1987, 28, 104-114.

The differences between parental grief reactions following different types of infant losses were investigated. A total of 117 parents (55 couples) from three groups of parents (stillbirth, neonatal death and Sudden Infant Death), 53% women and 47% men, answered a survey on different grief reactions one to four years following the death. Included in the survey were psychometric measures relating to anxiety, depression, impact of event, bodily discomfort, and general wellbeing. The results demonstrated that the three groups differed in their experience of various grief reactions. Sudden Infant Death Syndrome (SIDS) parents reported significantly more anxiety and intrusive thoughts than the other two groups in the early post-loss period, as well as significantly more anger, restlessness, and sleep disturbances than the neonatal group. The SIDS parents also scored significantly higher on some of the measures (experience of recovery, IES intrusion) relating to how they felt at the time of study. While the death being sudden did not show any correlation with the parents' experience of recovery or the psychometric measures, the length of time the child had lived showed a strong relationship to these measures. It is emphasized that counselling to parents must be based on increased knowledge about parental reactions, tailored to the individual family's needs.

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The death of a child is considered an extremely distressing event. Many studies have investigated how such losses affect the family (for a review see Dyregrov, 1985). Some controversy exists in regard to whether the family members' reactions depend on the type of loss they experience, and the length of time the child has lived (Peppers & Knapp, 1980; Laurell-Borulf, 1982; Kennell *et al.*, 1970; Benfield *et al.*, 1978; Lovell, 1983; Kirkley-Best & Kellner, 1982).

Peppers & Knapp (1980) did not find the mean grief score significantly different in women who had experienced miscarriage compared with women who experienced stillbirth or neonatal loss. Likewise, Laurell-Borulf (1982) found no differences in how mothers who lost a child prior to, during or after birth had worked through the crisis resulting from the loss. That parental grieving is not related to the duration of the child's life is also supported in other studies (Kennell *et al.*, 1970; Benfield *et al.*, 1978).

However, in a study of late miscarriage, stillbirth and perinatal loss, mothers whose babies had lived, even fleetingly, were found better able to make sense of the tragedy than mothers experiencing stillbirth (Lovell, 1983). More intense grieving responses have been found associated with stillbirth when the loss was late in the pregnancy (reported in Kirkley-Best & Kellner, 1982). These results fit the view that attachment develops during pregnancy. Kennell *et al.* (1970) found high mourning to be associated with the amount of contact the parents had with the child before the death. They found, however, no relation between the length of the baby's life and the mourning score. The gestational age of the infant as a factor in perinatal grieving has, however, never been systematically explored (Kirkley-Best & Kellner, 1982).

While suddenness of death seems to be a significant factor in predicting adverse grief reactions in adults (Parkes, 1972, 1975; Parkes & Weiss, 1983; Glick *et al.*, 1974; Lundin, 1982,

1984; Carey, 1979–80; Vachon *et al.*, 1982), this aspect is relatively unexplored in studies on the effect of a child's death on the family. Authors have commented on the fact that unanticipated loss of a child leads to more intense, disruptive and intolerable feelings (Woolsey *et al.*, 1978) and to forms of pathological bereavement (Raphael, 1975). In one study (LaRoche *et al.*, 1982) there was a trend towards more inappropriate grief reactions in unexpected versus expected stillbirth. Peppers & Knapp (1980) found the mean grief score highest at the time of death in the stillbirth group, compared with a miscarriage and neonatal group. Although this difference was not statistically significant, it may reflect the sudden impact of stillbirth. A salient feature of the reactions to sudden losses is the amount of anger experienced by the bereaved parents (Woolsey *et al.*, 1978; Cooper, 1980). In studies of parental reactions following the death of a child from cancer, a poor adaption following the loss was associated with a short duration of the child's illness (Spinetta *et al.*, 1981; Rando, 1983). The subsequent adaption of the parents was also poor when the duration of the child's illness was very long (18 months) (Rando, 1983).

Parents who conceive a new child soon after the death, have been said to replace the child they have lost, and not work through their grief (Cain & Cain, 1964; Poznanski, 1972; Lewis, 1979). Early conception of a new child after the loss of an infant has been found to correlate with morbid grief reactions (Rowe *et al.*, 1978), and with rejection and negative feelings toward the new baby (Forrest, 1983).

Other studies, however, indicate that the birth of a new child can be helpful. Mothers list the birth of a subsequent child as one of the factors that helped them most in their grief (Stringham *et al.*, 1982). Researchers have found a less intense grief reaction (Peppers & Knapp, 1980), and less depression (Videka-Sherman, 1982) among mothers who have given birth to a subsequent child, compared with parents without such a child. In one study no relationship between giving birth to a new child and the mother's "crisis outcome" was found (Laurell-Borulf, 1982). In this last study, however, the single factor most frequently mentioned by the mothers as most helpful in their grief work was having a new child, even though less than two-thirds of the mothers experienced this (Laurell-Borulf, 1982).

This report will address the following questions: Do early parental grief reactions differ in relation to the type of death that they experience? Does sudden death lead to more intense disruptive grief reactions than anticipated death? Will the length of time the baby lived influence the parent's grief reactions? Will parents who conceive a new child shortly after the loss fare worse than those who do not?

## METHODS

### *Subjects*

This paper is based on data gathered from families served by the Department of Obstetrics and the Department of Pediatrics at the University Hospital in Bergen, Norway. At the Department of Obstetrics there are around 4 000 deliveries annually. The Department of Pediatrics treat approximately 3 600 inpatients and 15 000 outpatients per year. It provides services to families living on the western coast of Norway. All families which lost their child due to stillbirth or neonatal death (a living child transferred to the Neonatal Intensive Care Unit who later died) in a three-year period were included in the study. In addition Sudden Infant Death Syndrome (SIDS) families that came in contact with the Department of Pediatrics in relation to the death were included. This group constituted around 80% of all families in the region that lost a child in SIDS during the time period of the study (based on data from birth register). A total of 28 families were excluded when other types of crises made it clinically and ethically difficult to subject them to the study, such as an extremely adverse psychosocial family situation, or the expectation of a new child in the near future.

A total of 214 parents that lost a child 12–48 months earlier ( $M=27.02$  months,  $SD=9.20$ ) received a questionnaire. Of these, 117 parents returned the questionnaire. In 55 families both parents responded. In addition seven mothers only responded (three married, one living with partner, three divorced). Their age

ranged from 19 to 49 years ( $M=29.1$ ,  $SD=5.79$ ). Sixty-two per cent of the parents were younger than 30 years; 56% lived in urban areas. Regarding education, 23% had primary school as their highest level of education, 55% had high school or college level and 22% had university or graduate level background.

The sample consists of three groups of bereaved parents. These three groups were (1) a stillbirth group ( $N=31$ ), (2) a neonatal group ( $N=57$ , including deaths occurring in the first week after birth), and (3) a SIDS group ( $N=29$ ).

All parents were offered assistance after the investigation. An intervention programme was started at the same time as this investigation, but, except for six SIDS families, none had received systematic help prior to the investigation. Qualitative clinical data from the intervention programme have been used to illustrate some of the quantitative observations.

### Measures

All subjects were asked to complete a questionnaire containing sociodemographic questions, questions related to the loss itself, including the family reactions to the loss, and inventories measuring psychic and somatic discomfort.

The questions concerning the loss were constructed for this study. Questions were based on previous literature (Kennell *et al.*, 1970; Benfield *et al.*, 1978; Rowe *et al.*, 1978; Cullberg, 1966; Cornwell *et al.*, 1977; Mendell *et al.*, 1980) and exploratory interviews and meetings with parents who had lost a child. An early enlarged version of the questionnaire was used as an interview guide in a "pilot study" of five bereaved families, and revisions were made. The questionnaire explored both immediate reactions to the loss, reactions during the time following the loss (anxiety, anger, depression, restlessness, etc.), siblings' reaction, and thoughts and feelings now, at the time of study. The format of these questions is found in Table 1.

The final questionnaire also includes the following inventories:

1. The Impact of Event Scale (IES) (Horowitz *et al.*, 1979; Zilberg *et al.*, 1982) which provides a measure of intrusive thinking and periods of avoidance associated with traumatic life events. Cronbach's alpha IES intrusion=0.90, IES avoidance=0.70. All Cronbach's alpha values relate to results from this study.

2. The 20-item version of the Goldberg General Health Questionnaire (GHQ) (Goldberg, 1978) was used to assess psychological impairment of health. Cronbach's alpha=0.93.

3. The state version of the State-Trait Anxiety Inventory (STAI) (Spielberger *et al.*, 1970) to assess degree of residual anxiety. Cronbach's alpha=0.94.

4. The Bodily Symptom Scale (BSS) (Person & Sjöberg, 1981) was employed to provide a measure of bodily discomforts. Cronbach's alpha=0.93.

5. The short form of the Beck Depression Inventory (BDI) (Beck & Beck, 1981) was employed to provide a measure of depression. Cronbach's alpha=0.88.

### Procedure

One week prior to sending the questionnaire, a letter was sent informing the parents of the study. The goals of the study were explained. The main objectives stated were increasing health personnel's knowledge of family reactions after the loss of a child, and to improve support for such families. Three weeks after receiving the original questionnaire, non-responding families were sent a follow-up letter requesting their response. In all communications with the families parents were offered the assistance of a pediatrician and a psychologist (the first author) if they felt the need for asking questions, or for expressing thoughts or feelings concerning the loss.

Mothers and fathers received almost identical questionnaires, and they were requested to fill them out separately. The mother's questionnaire contained questions about sibling reactions, and factual questions requiring only one of the parents to answer. The length of the questionnaire was thus 18 pages for mothers and 15 pages for fathers.

### Statistics

Admittedly data in Table 1 were treated on the interval level by the use of one-way analysis of variance. Chi-square analyses are not reported due to the frequencies in some of the cells. However, we conducted such analyses, and the significant group differences were almost identical with the results presented in Table 1.

## RESULTS

About half (54.7%) of the parents returned the questionnaire (53% of the responders were women). Based on hospital records, responding and non-responding mothers were compared with the child's weight at birth, the length of time the child lived, the mother's age, and whether the family lived in rural or urban areas. There were no significant differences between the groups on these variables (no  $t$  values  $>2.00$ ,  $p>0.05$ ).

When the responding parents in the stillbirth, neonatal and SIDS groups were compared for age, education and number of children, no significant differences were found (no  $t$  values  $>2.00$ ,  $p>0.05$ ).

In Table 1 the parents' responses to questions regarding their grief reactions in the period following the loss are listed. The three groups differed in their experience of various early grief reactions (in this and the following tables a low score indicates low distress, while a high score indicates high distress).

The SIDS group showed the highest mean scores on all questions, indicating more distress in the period following the loss. Although not included in the table, this was true for both men and women when they were treated separately. It is apparent from the table that the SIDS parents had stronger reactions than neonatal death parents and the stillbirth parents. There was a significant group effect on seven out of eight measures. The differences between the three "death groups" were similar for both men and women, except for the questions regarding "self-reproach", "restlessness" and "worked more", where the differences were most apparent for men.

By adding the numerical score each parent received on each of the eight variables, an index based on sumscores of the spontaneous reactions for the parents in the three groups was made. This index showed SIDS parents to report significantly more early grief ( $M=21.65$ ,  $SD=3.41$ ) than stillbirth parents ( $M=17.71$ ,  $SD=3.93$ ) and neonatal death parents ( $M=17.25$ ,  $SD=4.40$ ,  $t=3.68$ ,  $df=45$ ,  $p<0.001$ ;  $t=4.48$ ,  $df=76$ ,  $p<0.001$ ).

The type of death the parents experienced was important for how much anxiety they reported. The vast majority of the SIDS parents experienced much or very much anxiety (69%) following the death, some of the neonatal death parents experienced such anxiety (27%), and only a small part of the stillbirth parents (15%) reported much or very much anxiety. The group effect was significant. A range test (*a posteriori* contrasts) was used to compare the groups means (Nie *et al.*, 1975). SIDS parents experienced significantly more anxiety than the other two groups (range test, LSD-procedure,  $p<0.001$ ).

Few of the parents acknowledged anger as an early grief reaction. More than half of the neonatal death parents reported no anger at all, while more than half of the SIDS parents and the stillbirth parents reported that they had experienced some degree of anger. The groups differed significantly, and a range test (LSD procedure) showed that SIDS parents had experienced significantly more anger than the neonatal parents ( $p<0.01$ ).

A majority of parents in all three groups had experienced some degree of self-reproach. Half the SIDS parents reported to have felt much or very much self-reproach. A SIDS mother put it thus: "I still think that the baby must have cried, and if I had picked him up he would have been alive today". In the other two groups the tendency to self-reproach was less marked. A significant group effect was observed, with SIDS parents experiencing significantly more self-reproach than parents in the neonatal group (range test, LSD procedure,  $p<0.001$ ).

The vast majority of all three groups experienced sadness. All respondents answered this question. No significant differences were found between the groups.

SIDS parents reported more restlessness than the two other groups, and stillbirth parents reported more restlessness than neonatal-death parents. One father (SIDS) commented on his restlessness in the following manner: "It was enormous. I could not be at home for an hour. I had to do something all the time. Doing something kept the thoughts from coming. I still feel

Table 1. Early grief reactions in parents following their child's death. Comparison of groups

Question	Group		Peri/neonatal death		SIDS		<i>F</i> <sup>a</sup>	df
	Stillbirth		<i>N</i> (57)	%	<i>N</i> (29)	%		
To what degree did you react with:								
1. Anxiety								
1. Not at all	9	33.3	18	32.7	1	3.6		
2. Some	14	51.9	22	40.0	7	25.0		
3. Much	2	7.4	8	14.5	13	46.4		
4. Very much	2	7.4	7	12.7	7	25.0		
Mean		1.89		2.07		2.93	10.76***	2/107
2. Anger								
1. Not at all	9	34.6	32	57.1	5	18.5		
2. Some	12	46.2	17	30.4	17	63.0		
3. Much	4	15.4	5	8.9	2	7.4		
4. Very much	1	3.8	2	3.6	3	11.1		
Mean		1.89		1.59		2.11	3.94*	2/106
3. Self-reproach								
1. Not at all	7	25.9	21	38.2	3	10.7		
2. Some	13	48.1	23	41.8	11	39.3		
3. Much	2	7.4	7	12.7	6	21.4		
4. Very much	5	18.5	4	7.3	8	28.6		
Mean		2.19		1.89		2.68	6.20**	2/107
4. Sadness								
1. Not at all	0	0	0	0	1	3.4		
2. Some	4	12.9	7	12.3	1	3.4		
3. Much	12	38.7	26	45.6	9	31.0		
4. Very much	15	48.4	24	42.1	18	62.1		
Mean		3.36		3.30		3.52	0.94	2/114
5. Restlessness								
1. Not at all	5	16.7	11	19.6	1	3.4		
2. Some	13	43.3	34	60.7	14	48.3		
3. Much	10	33.3	6	10.7	8	27.6		
4. Very much	2	6.7	5	8.9	6	20.7		
Mean		2.30		2.09		2.66	4.43*	2/112
6. Worked more								
1. Not at all	20	69.0	36	65.5	9	32.1		
2. Some	8	27.6	11	20.0	15	53.6		
3. Much	1	3.4	5	9.1	2	7.1		
4. Very much	0	0	3	5.5	2	7.1		
Mean		1.35		1.55		1.89	3.49*	2/109
7. Intrusive thoughts about the child								
1. Not at all	2	7.1	2	3.6	1	3.4		
2. Some	6	21.4	15	27.3	2	6.9		
3. Much	10	35.7	16	29.1	7	24.1		
4. Very much	10	35.7	22	40.0	19	65.5		
Mean		3.00		3.06		3.52	3.18*	2/109
8. Sleep disturbances								
1. Not at all	7	24.1	24	42.9	5	17.2		
2. Some	13	44.8	25	44.6	9	31.0		
3. Much	4	13.8	3	5.4	6	20.7		
4. Very much	5	17.2	4	7.1	9	31.0		
Mean		2.24		1.77		2.66	8.38***	2/111

<sup>a</sup>One-way analysis of variance. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . NB: Not all respondents answered all questions. Responding *n* therefore does not add up to total *N* for each group.

Table 2. Group differences in bereaved parents' score on psychometric inventories (one-way analyses of variance).

Dependent variable	1 Stillbirth		2 Peri/neonatal		3 SIDS		df	F <sup>a</sup>
	Mean	SD	Mean	SD	Mean	SD		
1. Experience of recovery <sup>b</sup>	1.71	0.74	1.86	0.77	2.17	0.54	2/114	3.34*
2. STAI X-1	36.28	12.01	33.71	10.12	36.78	10.96	2/114	0.99
3. BDI	2.66	4.65	2.31	3.31	3.00	3.44	2/109	0.32
4. BSS	57.20	15.52	62.92	20.10	67.36	15.81	2/98	1.99
5. GHQ	2.94	4.47	3.25	4.98	3.79	4.88	2/114	0.25
6. IES intrusion <sup>c</sup>	6.48	5.58	8.74	8.54	12.35	9.19	2/104	3.88**
7. IES avoidance	5.96	6.26	6.53	5.25	7.68	5.10	2/89	0.59

<sup>a</sup> Over all effects were tested with analysis of variance, one-way.

<sup>b</sup> Multiple range test (LSD procedure, one-way) shows significant differences at the 0.05 level between the stillbirth and the SIDS group.

<sup>c</sup> Multiple range test (LSD procedure, one-way) shows significant differences at the 0.01 level between the stillbirth and the SIDS group.

\*  $p < 0.05$ ; \*\*  $p < 0.01$ .

some of the restlessness." The group effect was significant, and a range test showed significantly more restlessness in SIDS parents compared with neonatal parents (LSD procedure,  $p < 0.01$ ).

More SIDS parents compared with neonatal and stillbirth parents acknowledged having worked more since the loss. Few parents in all three groups experienced this reaction to any strong degree. The group effect was significant, and a range test showed SIDS parents reporting that they had worked significantly more than the parents in the stillbirth group (LSD procedure,  $p < 0.05$ ).

A common grief reaction was intrusive thoughts about the dead child. Nearly all SIDS parents had experienced this reaction to a strong or very strong degree. For most families the death took place in their home, and the events are "printed" at the back of their mind. One mother (SIDS) reported that she still was upset by frequent "flashbacks" to the situation when she found her baby dead on the floor. Her husband had taken the baby into his bed as the child was crying. She woke up, looked for the child under his blanket, did not find him, and the next thing she saw was the child dead on the floor. "I touched him, and he was cold. I have frequent nightmares taking me back to the situation, and also imagining our later born baby as the dead child." The group effect was significant (see Table 1). The SIDS group differed significantly (range test, LSD procedure,  $p < 0.05$ ) from the other two groups.

Sleep disturbances were common among parents in the SIDS and stillbirth groups. There was a significant group effect. Both the SIDS group and the stillbirth group differed significantly from the neonatal group when a range test were performed (LSD procedure,  $p < 0.001$  and  $p < 0.05$  respectively). Again, the SIDS parents had the highest percentage of problems in this area.

The differences between the three groups at the time of study (one to four years following the death), on five standardized inventories measuring different emotional aspects are shown in Table 2 (IES scores are reported separately for IES intrusion and IES avoidance). In addition the responses to a direct question asking to what degree they *now* felt recovered after the loss are included in the table.

Table 3. The relation between clinical variables and grief inventories (Pearson's *r* correlations). Partial *r* correlations is shown in parentheses (controlled for interval between death and participation in research).

Clinical variables	Inventories						
	Experience of recovery	STAI X-1	BDI	BSS	GHQ	IES intrusion	IES avoidance
Type of death <sup>a</sup>	0.26*	0.10	0.10	0.20	0.08	0.24	0.11
Suddenness	0.01 (0.01)	-0.04 (-0.04)	-0.02 (-0.01)	-0.03 (-0.03)	-0.03 (-0.03)	0.10 (0.10)	0.05 (0.05)
Child's age	0.33*** (0.33***)	0.24** (0.24**)	0.19* (0.19*)	0.17 (0.16)	0.20* (0.19*)	0.22* (0.20*)	-0.10 (0.09)
New baby	0.08 (0.07)	-0.05 (-0.09)	0.09 (0.05)	0.05 (0.02)	0.17 (0.12)	-0.05 (-0.12)	0.04 (0.01)

<sup>a</sup> Regarding the type of death the value 1 is defined as stillbirth, 2 as neonatal death, and 3 as SIDS, on the basis of a rational view of direction. The variable "type of death" is on nominal level, and hence Eta coefficients.

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; two-tailed test.

SIDS parents had the highest mean score on all measures. A multiple range test showed that the stillbirth group felt significantly more recovered than the SIDS group at the time of study (a higher score indicates less recovery).

The stillbirth group had a higher (but non-significant) mean score on depression and state anxiety (Table 2) than the neonatal parents at the time of study. On the other measures the stillbirth group had a lower mean score than the neonatal group. Although not included in the table, the differences in scores between the groups were similar when men and women were treated separately.

Table 3 shows the relationship between some selected clinical variables held to be of importance for grief outcome, and the psychometric inventories (the parents' own report of recovery is added to the list). The type of death showed a significant correlation to how the parents felt they had recovered following the loss. Type of death did not show any correlation to the other measures (Table 3).

The child's age (the child's age refers to gestational age plus eventual time the child lived, as identified in the hospital records) showed a clear relationship across most inventories and recovery experience. The parents reported more symptoms and felt less recovered at the time of study if the child had lived a longer period of time (Table 3). All parents who experienced a SIDS death, a stillbirth with less than 24 hours notice of the death, or a death occurring within the first 24 hours of life were regarded as having experienced a sudden death. Parents in the neonatal group who, on a direct question, indicated that their baby's death occurred without notice, were also included in the sudden death group. All other deaths were regarded as anticipated deaths. The suddenness of the death did not show any correlation with either the experience of recovery or the standardized measures (Table 3). Having a new baby did not correlate with any of the measures.

As the interval between the time of loss and the time of answering the questionnaire varied between one and four years, we felt it necessary to control for this factor when examining the relationship between the clinical variables above, and the various measures reflecting grief. The partial  $r$  correlations indicated that the variability in time span only had a minor influence.

## DISCUSSION

SIDS parents reported stronger early grief reactions than parents who experienced stillbirth or neonatal death. The SIDS group experienced significantly more feelings of anxiety, and intrusive thoughts than the other two groups. They also reported significantly more restlessness, anger, self-reproach, and sleep disturbances than the neonatal group, and having worked significantly more than the stillbirth group. Stillbirth parents reported significantly more sleep disturbances than the neonatal group. Sadness were more equally reported in the three groups. An index based on the sumscores of the early grief reactions showed that SIDS parents experienced more grief reactions than stillbirth parents, while the group scored somewhat higher than the neonatal death parents.

The same pattern emerged when the scores of the three groups were compared on the standardized psychometric inventories. The SIDS group's IES intrusion scores indicate more intrusive images and intrusive thoughts in this group compared with the other two groups. The SIDS families also experienced significant less recovery at the time of study. The SIDS group had higher mean scores on all the other inventories, indicating higher distress one to four years after the child's death. On the General Health Questionnaire the SIDS mean score was somewhat higher than the other two groups (although not significant). The scores for the three groups on the Beck Depression Inventory did not differ much.

The results confirm that SIDS deaths are a very traumatic form of death (Blueglass &

Hassall, 1979; Read *et al.*, 1982; Limerick, 1983). Parents are given no warning, no time for preparation, and the death usually happens in the home with the parents themselves discovering the dead child. Although SIDS is accepted as a valid post-mortem diagnosis, the mechanism of this sudden death is still largely unknown (Kelly & Shannon, 1982). This makes the situation and prospects for the future more unpredictable and frightening for the parents, as well as their family.

As discussed previously, sudden death is believed to result in more adverse psychological consequences than anticipated death. In previous grief research, bereaved with as long as five days to two weeks of forewarning have been included in the sudden death group (Parkes, 1975; Vachon *et al.*, 1982; Sanders, 1979-80). Our results, utilizing a more "pure" sudden death group, did not confirm the impact of suddenness on grief outcome.

Other aspects, apart from suddenness, must be more important in explaining why the SIDS families experience more intense and long-lasting psychological reactions. The highly traumatic circumstances surrounding the death might explain the differences between the SIDS group and the two other groups.

We found a clear relationship between lifelength and the parents' long-term adaption on all measures except the avoidance part of the Impact of Event Scale and the Bodily Symptoms Scale. Those parents whose child lived for a longer time (gestational age included) experienced more long-term adaption problems than those whose child died early. Grief was related to the duration of the baby's life, and stronger grief reactions were evident with advanced length of the child's life. This confirms what others have found (Lovell, 1983; Kirkley-Best & Kellner, 1982). Parental attachment is believed to develop through pregnancy (especially in mothers) as the baby is harboured and nurtured by the mother's body (Raphael, 1983). As both parents have the opportunity to take part in the care of the child either in hospital or later at home, it is reasonable to expect a growing mutual bond formation, and thus a strong grief reaction.

Our results suggest that parents who delivered or were expecting a new child, did not fare worse than other parents. Parents taking part in the intervention programme have often commented on how helpful it was to be pregnant again, or having a new child. Other researchers have found the same (Laurell-Borulf, 1982), both regarding quantitative results, and qualitative comments. We cannot, however, draw any firm conclusion regarding the psychological welfare of later born children. It seems, however, that the negative consequences of having a new child may have been too much emphasized in the clinical literature (Cain & Cain, 1964; Poznanski, 1972; Lewis, 1979). Due notice should also be given to the potential beneficial aspects of having a new child.

The retrospective method requires the parents to draw on long-term memory involving both *post hoc* inference and interpretation. The human mind tends to forget the painful and remember the pleasant (Ericsson & Simon, 1980). Thus the report may be biased towards an under-reporting of painful feelings. The attrition rate is similar to other studies conducted one to four years following the death of a loved one (Shanfield *et al.*, 1984). From other research on bereavement there is reason to believe that the non-responders are more emotionally affected than the responders (Cooper, 1980; Clarke & Williams, 1979). This adds to the likelihood that our estimates of emotional reactions are lower than the true prevalence of these reactions among bereaved parents.

## CONCLUSION

Parents continue to grieve for years after the child's death. Psychosocial assistance must be tailored to the need of parents, to reduce the possibility of long-term emotional sequelae.

Parents who have experienced SIDS need special care and follow-up. Early crisis intervention may benefit parents from all these groups, but seems especially needed for the SIDS group. When intrusive images and thoughts continue for more than three to four months, psychological techniques that reduce such intrusiveness should be part of the follow-up services. Further research will be needed to understand in more detail the mechanisms behind good versus poor outcome in bereavement following the death of a child.

This research was supported by the Norwegian Research Council for Science and the Humanities. The authors are grateful to Håkan Sundberg for invaluable help during the study. We thank Holger Ursin and Jeffrey T. Mitchell for help with the manuscript.

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Received 17 February 1987