Parental grief following the death of an infant—a follow-up over one year

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The course of parental bereavement during the first year following an infant's death was investigated. Also, the differences in mothers' and fathers' reactions, the differences according to the mothers' occupational role, and the similarities in couples' reactions were studied. From a total sample of 59 families, 13 families answered their questionnaires at all three time points (1, 6 and 13 months), 22 families responded at two time points, and 37 families responded at some point following the loss. Measures relating to anxiety, depression, bodily discomfort, general well being and impact of event were used at the three time points. The results showed that grief, as measured by the different inventories, decreased over time. The decrease was most evident from 6 to 13 months, and most prominent in women. A considerable number of the parents were still actively dealing with the loss all through the first year of bereavement. In most couples the mother reported most distress. Mothers were significantly more depressed than fathers at all time points, and mothers also had significantly higher anxiety and lower general health at 1 and 13 months, and intrusive scores of 1 and 6 months. Women at home evidenced more grief at all three time points than women employed outside the home. A high or low score in one spouse was more strongly correlated with a similar score in the other at 1 and 13 months, than at 6 months. The implications for counselling of parents, with special emphasis on the employment situation of the mother, is emphasized.

Key words: Infant loss, bereaved parents, grief reactions

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Many studies indicate a decline in grief over time following the loss of an infant child (DeFreain & Ernst, 1978; Clarke & Williams, 1979; Lowman, 1979; Price et al., 1985). However, the time proposed for satisfactory adjustment varies considerably. The grief reactions of the majority of parents continued throughout the first year of bereavement (Jensen & Zahourek, 1972; DeFrain & Ernst, 1978; Forrest, Standish & Baum, 1982; Price et al., 1985; Videka-Sherman & Lieberman, 1985), and there are indications of long-term consequences (several years) of child bereavement with little diminishing of grief over time (Jurk et al., 1981; Laurell-Borulf, 1982; Miles, 1985; Rando, 1983; Lehman et al., 1987). However, others (Lowman, 1979; Cooper, 1980) have found that the majority of parents had returned to normal function after 6 months.

Clinical reports and retrospective studies focusing on the father's grief find it to be less intense and shorter than the mother's following the death of an infant (e.g. Benfield et al., 1978; Helmreich & Steinitz, 1978; Peppers & Knapp, 1980; Wilson et al., 1982; LaRoche et al., 1984; Videka-Sherman & Lieberman, 1985; Dyregrov & Matthiesen, 1987a). It has been reported that the majority of men were shown to have recovered within 6 months of the loss (Forrest et al., 1982; Cornwell et al., 1977). Systematic measurements of grief reactions have shown that fathers report less grief than mothers (Dyregrov & Matthiesen, 1987a; Kennel et al., 1979).

There is mounting evidence suggesting that working women in general fare better emotionally than housewives (Haw, 1982; Kessler & McRae, 1982; Verbrugghe, 1983). Women
in the housewife role have been found to have lower self-esteem than their employed counterparts (Birnbaum, 1975), and they are significantly more depressed than wives employed outside the home. Employed wives do not significantly differ in level of depression from comparable men (Gore & Mangione, 1983). Following infant loss, it is known that many men become increasingly involved outside the home (Mandell et al., 1980). Men are said to find the structured activity of their work helpful. It is not known how work outside the home affects women’s grief reactions. In this report this question will be addressed.

Mothers who report strong (or mild) reactions tend to have partners who report strong (or mild) reactions (Benfield et al., 1978; Dyregrov & Matthiesen, 1987a). No prospective study has been conducted to see whether this changes during the course of bereavement.

The inconsistent findings in the various reports can be due to problems in measurement and method. The vast majority of studies have been retrospective, and systematic measures to rate various components of grief have seldomly been applied. In this article we will assess grief reactions prospectively over the first year of bereavement. We will apply 5 different psychological inventories to ensure a measurement of various components of grief, and both mens’ and womens’ grief reactions will be measured.

The following issues are addressed:

1. Is there a gradual decline in grief reactions, as measured during the first year of bereavement?
2. To what extent do mothers’ and fathers’ grief reactions differ during the first year of bereavement?
3. Do mothers’ reactions differ according to their occupational role?
4. Do the two members of a couple react in a similar or different way?

METHOD

Subjects

Fifty nine families who lost a child during the first year of life received questionnaires. One family consisted of a mother only. This constituted all families (with the exception of 9 families mentioned below) who suffered the loss of their child at the Neonatal Intensive Care Unit at the Department of Pediatrics, Haukeland Hospital, Bergen within a 2½ year period, and all Sudden Infant Death (SIDS) families that were in contact with the Department of Pediatrics in the same time period. Nine families were excluded because of practical, clinical or ethical reasons: foreigners (2), twin birth with the death of one or both twins (2) extremely adverse psychosocial family situation (4), address unknown (1).

In 13 of the 50 families who received the questionnaires both parents answered their questionnaire on all 3 occasions (1, 6 & 13 months) after the loss of their child. Some parents failed to fill in the whole questionnaire. In 9 additional families both parents responded on 2 occasions. Data from the 37 families who reported at one or more time points following the death of their child will be included (maximum N for women = 37 and for men = 33). The return rate at 1, 6 and 13 months were 51%, 35% and 37% for women, and 50%, 32% and 32% for men.

Based on hospital records, the families of responding (returned the questionnaire one or more times) and non-responding families were compared on some selected variables. There were no significant differences between the groups (t > 0.05, two-tailed test) on variables such as: the child’s weight at birth, the life-span of the child, the mother’s age, the presence of siblings in the family, and whether the family lived in rural or urban areas. Comparisons on the same variables between the families who responded only at 1 month, and those who responded at two or three time points, likewise revealed no significant differences (t > 0.05, two-tailed test).

The mean age was 29.3 years for men and 27.4 years for women. 64.4% lived in urban areas, 16.9% of all the parents had primary school as their highest level of education, 62.7% had high school or the equivalent, and 20.3% had a university background.

The sample consisted of 8 families who experienced a SIDS-death and 29 families who experienced a peri- or neonatal death. Five children died within the first week of life.
All parents who had lost children at the Neonatal Intensive Care Unit (NICU) or in SIDS were offered grief crisis counselling as part of a three year project aimed at supporting families who had lost newborns and infants. All but 8 families received such intervention. The grief crisis intervention is described in more detail elsewhere (Dyregrov, 1990).

**Measures**

Questionnaires were distributed at 1, 6 and 13 months following the loss. The first questionnaire contained questions providing sociodemographic information, and questions related to the loss itself, including the parent’s immediate reactions to the loss and their perception of support from partner and family. The questionnaires sent out at 6 and 13 months explored the parent’s perception of support from spouse, family and others, their sense of recovery, and sibling reactions. Questions for the instrument were based on previous studies concerning parental reactions to the death of a child (i.e. Kennell et al., 1970; Cullberg, 1966; Rowe et al., 1978; Mandell et al., 1980), and on exploratory interviews and meetings with parents who had lost a child.

To investigate adaptation to the loss over time, 5 inventories measuring different components of grief were included at all three time points:

1. The Impact of Event Scale (IES) (Horowitz et al., 1979; Zilberg et al., 1982) which provides a measure of intrusive thinking (IES-I) and periods of avoidance (IES-A) following traumatic life events.
2. The 20 item version of the Goldberg General Health Questionnaire (GHQ) (Goldberg, 1978) was used to assess psychological impairment of health.
3. The state version of the State-Trait Anxiety Inventory (STAI X-1) (Spielberger et al., 1970) was used to assess the degree of residual anxiety.
4. The Bodily Symptom Scale (BSS) (Persson & Sjöberg, 1981) was employed to provide a measure of bodily discomforts.
5. The short form of the Beck Depression Inventory (BDI) (Beck & Beck, 1972) was employed to provide a measure of depression.

Mothers and fathers filled out separate questionnaires.

All the inventories used in our study showed adequate psychometric properties (inter-item reliability), over time. Cronbach’s Alpha varied between 0.81 and 0.97.

**Procedure**

Whenever possible, parents met with the crisis counsellor (first author) within the first two days after the death. Contact was not established with 8 families, and these families received no grief follow-up intervention from the hospital. For anticipated deaths, contact was most often established with parents prior to the death. Following the death of their child, parents were informed about our effort to gain more information on parental responses to infant deaths, and that they would receive questionnaires at 1, 6 and 13 months following the death. We stressed that they were free to decline answering the questionnaire should the questions upset them. Failure to answer the questionnaires was not brought up in clinical sessions. However, parents received a questionnaire at 6 or 13 months even if they had failed to respond to an earlier request.

When contact was not established during the first period following the loss, the family received the questionnaires through the postal service at 1, 6 and 13 months. An introductory letter explained the objectives of the study, i.e. to increase health personnel's knowledge of family reactions after the loss of a child, and to improve hospital support for such families. The parents were offered our grief crisis counselling, as well as other assistance should they need it.

Mothers and fathers received identical questionnaires except that the mother’s questionnaire also contained questions about sibling reactions, and questions requiring only one of the parents to answer (factual information). Estimated fill-in time for the questionnaire was 45-60 minutes (somewhat shorter for the father). As questionnaires were shorter at 6 and 13 months, fill-in time was reduced.

**Statistics**

The data from the questionnaires were coded and entered on a permanent data file: SPSS-X (SPSS Inc., 1983) and MULTIVARIANCE (Finn, 1972) was used for the statistical computations.
Fig. 1. Mothers' and fathers' grief at 1, 6 & 13 months after the death of their child.
Table 1. Number of respondent (N) and mean scores (M) for the different inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>1 month</th>
<th>6 months</th>
<th>13 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>N</td>
</tr>
<tr>
<td>STAI X-1</td>
<td>29</td>
<td>42.3</td>
<td>20</td>
</tr>
<tr>
<td>BDI</td>
<td>27</td>
<td>7.4</td>
<td>19</td>
</tr>
<tr>
<td>BSS</td>
<td>28</td>
<td>76.9</td>
<td>19</td>
</tr>
<tr>
<td>GHQ</td>
<td>28</td>
<td>9.3</td>
<td>19</td>
</tr>
<tr>
<td>IES I</td>
<td>26</td>
<td>17.9</td>
<td>19</td>
</tr>
<tr>
<td>IES A</td>
<td>27</td>
<td>8.8</td>
<td>20</td>
</tr>
<tr>
<td>STAI X-1</td>
<td>28</td>
<td>35.0</td>
<td>18</td>
</tr>
<tr>
<td>BDI</td>
<td>25</td>
<td>3.2</td>
<td>17</td>
</tr>
<tr>
<td>BSS</td>
<td>26</td>
<td>65.7</td>
<td>18</td>
</tr>
<tr>
<td>GHQ</td>
<td>27</td>
<td>4.9</td>
<td>17</td>
</tr>
<tr>
<td>IES I</td>
<td>26</td>
<td>11.3</td>
<td>17</td>
</tr>
<tr>
<td>IES A</td>
<td>27</td>
<td>6.3</td>
<td>18</td>
</tr>
</tbody>
</table>

RESULTS

37 families (62.7%) returned their questionnaire at one or more occasions.

Exact N and the mean scores for men and women, based upon all available questionnaires for each of the three time points, are listed in Table 1.

Fig. 1 presents the mean grief scores of men and women at the three time points, as well as women split into two groupings; those who continued working outside the home and those who continued working at home.

Womens' (all women included in one group) and mens' mean score generally show a decline over time. The statistical analysis (ANOVA, repeated measures, and MULTIVARIANCE, using Helmert contrasts) are restricted to cases with valid data for all three points (max. N = 22 for STAI X-1, min. N = 18 for IES-I). The number of respondents included in the mean scores in Fig. 1 is therefore higher than in the ANOVA and MULTIVARIANCE analysis. However the means for the total sample and the means from the restricted sample are similar. The statistical analysis shows that the trend in the data (grief over time) is basically the same when using the whole or a restricted part of the sample. ANOVA, repeated measurements, shows that in women, the change in grief score is significant for the following measures: BDI (F(2/18) = 1.95, p < 0.001), GHQ (F(2/18) = 2.76, p < 0.001) and IES Intrusion (F(2/16) = 3.82, p < 0.001). Fig. 1 indicates that the reduction in mean grief scores is most evident among women, with the exception of anxiety where their mean level rises from 1 to 6 months.

ANOVA, repeated measurements, shows that for men the decline in grief is significant for the following measures: STAI X-1 (F(2/20) = 2.24, p < 0.001), BSS (F(2/16) = 2.52, p < 0.001), GHQ (F(2/16) = 1.01, p < 0.05), and IES Intrusion (F(2/16) = 1.88, p < 0.001). The mean levels of anxiety, depression, and avoidance for men rise from 1 to 6 months, otherwise the levels decline.

Multivariance, using Helmert contrasts, was selected to create a factorial design with sex as an independent variable. Sex was investigated in relation to two contrast factors: the difference between time points 1 and 2, summed up for all informants with valid answers on each of the 3 time points (trend 1), and correspondingly, the mean of time point 1 and 2, contrasted to time point 3. However, none of the contrast models for each of the grief inventories revealed significant overall effects.
Fig. 1 indicates that mens' and womens' (all women) mean values differ from each other at all three time points. There is a parallel drop (and rise in anxiety) in the two sexes' scores, and at no time and on no measures is the mean score of fathers higher than that of mothers. The differences between men and women are significant on the following measures: BDI 1 month ($t(2/50) = -2.65, p < 0.05$), BDI 6 months ($t(2/34) = -2.26, p < 0.05$), GHQ 1 month ($t(2/53) = -2.23, p < 0.05$), IES Intrusion 1 month ($t(2/50) = -2.13, p < 0.05$).

The group of women were split into ‘working’ women (employed outside the house) and housewives, and Fig. 1 shows that women at home have a higher level of distress than their working counterparts on all measures, at all times. 9 of 18 possible comparisons reveal significant differences between working women and housewives' grief scores ($p < 0.05$, using Student $t$-tests, two-tailed, see note 1 below). Differences are significant for STAI-X-1 (all time points), BDI (at 6 months), BSS (at 13 months), GHQ (at 6 months). IES Intrusion (at 6 and 13 months), and finally IES A (at 6 months). (For exact $t$-tests see note 1). For most measures the housewives' mean scores either peak (anxiety, depression, avoidance) or remain stable (bodily symptoms, general health) at 6 months, but for intrusion the scores indicate a gradual decline. For working mothers there is a gradual decline from 1 to 13 months, except for anxiety and intrusion which peaks at 6 months. The score on GHQ drops from 1 to 6 months, and then remains at this level at 13 months.

Working women's mean inventory scores are similar to those of men, while housewives show scores indicating much higher levels of distress. For some of the inventories the working mothers' score is below that of men (GHQ, IES Intrusion and IES Avoidance).

In Table 2 we have compared parent's grief reactions as a couple at 1, 6 and 13 months, using Wilcoxon matched-pairs signed ranks test. For all inventories, at all time points, there is a majority of couples where the mother has a higher score than her spouse, except for bodily symptoms at 6 months where the couples' score is equally distributed between mothers and fathers. In a majority of the couples it is the mother that indicates most distress. For depression the difference is significant at all three time points, for anxiety and general health it is significant at 1 and 13 months, and for intrusion at 1 and 6 months. In spite of these general results, however, it should be noted that the fathers in many couples indicate more distress than the mother.

For BDI (short version) a cutoff point score of 4 was used to identify those who evidenced mild, moderate or severe depression (Beck & Beck, 1972). We found that more women than men evidenced some form of depression at all three time points (see Table 3). The majority of women were above the cutoff point for depression all through the first year of bereavement, while 1/4 to 1/3 of the men were above this point. For both sexes there were more persons above the cutoff point at 6 months than at the other two time points.

With a a cutoff score of 4 in the GHQ (Goldberg, 1978). Table 3 shows that there is a decline over time in the percentage of men who score above the cutoff level. The percentage of women who score above the cutoff point remains the same from 1 to 6 months, with some decline at 13 months. There are more women than men who score above the cutoff point at all three time points.

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1Significant $t$-tests between working women and housewives grief scores

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Test Statistic</th>
<th>Degrees of Freedom</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAI X-1</td>
<td>$t = -3.05$, df = 1/72, $p &lt; 0.01$ (1 month), $t = -2.97$, df = 1/18, $p &lt; 0.05$ (6 months), $t = -2.37$, df = 1/17, $p &lt; 0.05$ (13 months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI</td>
<td>$t = -2.41$, df = 1/17, $p &lt; 0.05$ (6 months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSS</td>
<td>$t = -2.36$, df = 1/17, $p &lt; 0.05$ (13 months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GHQ</td>
<td>$t = -2.84$, df = 1/17, $p &lt; 0.05$ (6 months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IES 1</td>
<td>$t = -2.35$, df = 1/24, $p &lt; 0.01$ (1 month), $t = -2.66$, df = 1/18, $p &lt; 0.05$ (13 months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IES A</td>
<td>$t = -2.98$, df = 1/18, $p &lt; 0.01$ (6 months)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2. Comparison of parent's grief reactions 1, 6 and 13 months after the loss. Differences on inventories tested for significance by the use of Wilcoxon matched-pairs signed ranks test for related samples

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Father highest score</th>
<th>Mother highest score</th>
<th>Equal score</th>
<th>Wilcoxon Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Month</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAI</td>
<td>8</td>
<td>20</td>
<td>0</td>
<td>-1.97*</td>
</tr>
<tr>
<td>BDI</td>
<td>2</td>
<td>17</td>
<td>6</td>
<td>-3.28***</td>
</tr>
<tr>
<td>BSS</td>
<td>10</td>
<td>15</td>
<td>1</td>
<td>-1.91</td>
</tr>
<tr>
<td>GHQ</td>
<td>6</td>
<td>19</td>
<td>2</td>
<td>-3.07**</td>
</tr>
<tr>
<td>IES-I</td>
<td>6</td>
<td>17</td>
<td>2</td>
<td>-2.55**</td>
</tr>
<tr>
<td>IES-A</td>
<td>8</td>
<td>18</td>
<td>0</td>
<td>-1.74</td>
</tr>
<tr>
<td>6 Months</td>
<td></td>
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<td></td>
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<tr>
<td>STAI</td>
<td>7</td>
<td>9</td>
<td>1</td>
<td>-1.09</td>
</tr>
<tr>
<td>BDI</td>
<td>2</td>
<td>13</td>
<td>1</td>
<td>-2.27*</td>
</tr>
<tr>
<td>BSS</td>
<td>8</td>
<td>8</td>
<td>0</td>
<td>-0.78</td>
</tr>
<tr>
<td>GHQ</td>
<td>4</td>
<td>10</td>
<td>1</td>
<td>-1.73</td>
</tr>
<tr>
<td>IES-I</td>
<td>4</td>
<td>12</td>
<td>1</td>
<td>-2.12*</td>
</tr>
<tr>
<td>IES-A</td>
<td>8</td>
<td>8</td>
<td>2</td>
<td>-0.16</td>
</tr>
<tr>
<td>13 Months</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAI</td>
<td>3</td>
<td>14</td>
<td>0</td>
<td>-2.63**</td>
</tr>
<tr>
<td>BDI</td>
<td>3</td>
<td>11</td>
<td>3</td>
<td>-2.42*</td>
</tr>
<tr>
<td>BSS</td>
<td>7</td>
<td>9</td>
<td>1</td>
<td>-1.73</td>
</tr>
<tr>
<td>GHQ</td>
<td>3</td>
<td>11</td>
<td>2</td>
<td>-2.23*</td>
</tr>
</tbody>
</table>

*p < 0.05; **p < 0.01; ***p < 0.001.

Table 3. Percentages of men and women above the recommended cutoff points¹ at 1, 6 and 13 months following an infant loss

<table>
<thead>
<tr>
<th>Inventory²</th>
<th>1 month</th>
<th>6 month</th>
<th>13 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>men</td>
<td>women</td>
<td>men</td>
</tr>
<tr>
<td>Depression (BDI)</td>
<td>28</td>
<td>52</td>
<td>35</td>
</tr>
<tr>
<td>General health (GHQ)</td>
<td>41</td>
<td>57</td>
<td>29</td>
</tr>
<tr>
<td>Intrusion³ (IES-I)</td>
<td>54(19)</td>
<td>69(42)</td>
<td>47(12)</td>
</tr>
<tr>
<td>Avoidance³ (IES-A)</td>
<td>26(4)</td>
<td>33(7)</td>
<td>12(6)</td>
</tr>
</tbody>
</table>

¹For BDI and GHQ the recommended cutoff score is 4. For the IES the low distress score is less than 9, medium distress score from 9 to 19, the high distress score is above 19. ²N for the different time points are found in Table 1. ³High and medium distress levels combined, with high distress only in parenthesis.

When using Horowitz' (1982) criteria for high (more than 19), medium (9–19) and low distress (less than 9) levels, we again found that for intrusion more women than men had a high or medium level of distress at all three time points. For both sexes there is a drop in distress from 6 to 13 months. 40% of the women still experience high or medium levels of intrusive distress at 13 months.

The percentages scoring above the cutoff points are lower for avoidance than for intrusion. Although womens’ scores exceed men at all three time points, the differences are less
Table 4. Rank order correlation (Spearman's rho) between fathers' and mothers' grief (the spouses in each couple is compared directly) for those pairs that completed the questionnaire at 1, 6 and 13 months

<table>
<thead>
<tr>
<th></th>
<th>STAI X-1</th>
<th>BDI</th>
<th>BSS</th>
<th>GHQ</th>
<th>IES Intrusion</th>
<th>IES Avoid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father vs. mother¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 month</td>
<td>0.31*</td>
<td>0.43**</td>
<td>0.35*</td>
<td>0.44**</td>
<td>0.18</td>
<td>0.17</td>
</tr>
<tr>
<td>6 months</td>
<td>0.06</td>
<td>0.32</td>
<td>0.16</td>
<td>0.27</td>
<td>0.33</td>
<td>0.22</td>
</tr>
<tr>
<td>13 months</td>
<td>0.25</td>
<td>0.50**</td>
<td>0.37*</td>
<td>0.30</td>
<td>0.34</td>
<td>0.15</td>
</tr>
</tbody>
</table>

¹At 1 month N varies between 25 and 28, at 6 months N varies between 15 and 18, and at 13 months N varies between 16 and 18.
* < 0.05; ** < 0.01; *** < 0.001, two-tailed test.

pronounced. While the percentage of women indicating distress decreases, there are more men who indicate distress at 13 months than at 6 months.

The spouses grief reactions correlated significantly in 4 out of 6 inventories at 1 month following the loss, none at 6 months, and 2 at 13 months (see Table 4). This indicates that the spouses tend to have similar grief reactions early following bereavement, more dissimilar reactions at 6 months, and somewhat more similar reactions at 13 months.

The subjects who received grief intervention experienced significantly less anxiety (STAI X-1) at 1 month (t(2/55) = 2.10, p < 0.05) and 13 months (t(2/34) = 2.30, p < 0.05), and significantly more bodily symptoms (BSS) at 13 months (t(2/34) = 2.58, p < 0.05) and intrusive thoughts (IES-Intrusion) at 1 month (t(2/50) = 2.72, p < 0.05) than those who did not receive grief intervention.

The reactions of parents in families with a living child did not differ significantly from families without children, except from mothers with living children who reported significantly more depression at 6 months than those without children (F = 7.12, df 1/15, p < 0.05). There were no significant differences on the 5 inventories between those parents expecting a new child, and those who did not.

DISCUSSION

Resolution of grief over time

Grief, as measured by different inventories, showed decrease over time. The decrease was most prominent in women. When the decline in mean grief scores and the decline in percentages scoring above cut-off points are considered together, the decline in grief reactions is most evident from 6 to 13 months.

If we compare the mean values found at 13 months in this study with the mean values found in an earlier retrospective study where data were collected with the same measures at a mean of 27 months following the death (Dyregrov & Matthiesen, 1987a), we find that the mean scores in the retrospective study are somewhat lower, but not much. This can, cautiously, be taken as an indication that by 13 months much of the adaption to the loss has taken place. The recovery process for the parents in this study may have been accelerated as a majority of the parents received grief crisis intervention. However, the results show that although the parents who received grief intervention reported less anxiety at 1 and 13 months, they also reported more intrusive thoughts at 1 month and more bodily symptoms at 13 months. As the majority of parents received intervention, and only 8 couples did not, it is premature to draw firm conclusions based on these results.
Anxiety did not show the same decline pattern as the other measures. We have previously documented that anxiety constitutes a special problem for parents that have lost a child (Dyregrov & Matthiesen, 1987b). Their illusion of invulnerability is shattered and they expect the worst to happen, and their anxiety is increased by hearing or reading of other peoples' misfortunes.

The mean STAI X-1 scores for women at 6 months in this study were quite similar to those found by Rubin (1982) in his investigation of grief reactions in mothers 7 months after the loss of an infant. Rubin found a mean STAI X-1 score of 45.0 in women who had lost children an average of 7 months earlier, while our women's mean STAI X-1 score at 6 months follow up were 43.8 (SD = 14.4). Rubin (1982) also studied a group of women who had experienced a loss about 52 months earlier, and found a STAI X-1 score that was almost identical to the mean STAI X-1 score found in mothers in our retrospective study (see Dyregrov & Matthiesen, 1987a) where about 27 months had elapsed since the death. Both Rubin's and our own findings indicate that bereaved mothers' anxiety scores remain elevated for years following the loss.

The level of state anxiety reported in normative population samples varies around a score of 30 (Spielberger et al., 1970). In a discussion of the Norwegian version of the STAI X-1, Weisæth (1984) argued that there was a tendency to rate one's anxiety too low in a Norwegian sample. According to Weisæth, the Norwegian baseline state anxiety score was somewhat lower than the U.S normative samples.

We found that the loss of a child resulted in increased anxiety among parents (especially in housewives), well above normative samples, and that this anxiousness continued during the first year of bereavement.

The mean scores on the Bodily Symptoms Scale were above those found in a 'normal' group, and a group suffering from chronic disease (chronic rheumatism) in a Swedish study (Persson & Sjöberg, in press). The scores of the bereaved parents on the Impact of Event Scale, especially for intrusion, were mostly above those found in a Norwegian prospective study which measured intrusion and avoidance within 7 days, at 6–9 months, and 2 1/2 years following adults' hospitalization for accidental injury (Malt, 1988).

The percentage of persons scoring above the cutoff points for both depression and general health, as well as the percentage experiencing high to medium degrees of intrusiveness, are relatively high, suggesting that many bereaved parents show little evidence of resolution within 13 months. A considerable number of the parents still seemed to be actively dealing with the loss all through the first year of bereavement.

Differences in mothers' and fathers' grief score

As in our retrospective study (Dyregrov & Matthiesen, 1987a), we found mothers reporting more distress than fathers. Wilcoxon signed rank test also revealed that for all inventories, at all three time points, except bodily symptoms at 6 months, there were more couples where the mother had a higher score than the father.

Fathers were much more reluctant to express their feelings than mothers both verbally and in writing. While mothers often cried in the clinical sessions, fathers almost never did this. On the questionnaires many mothers wrote long accounts on how they had experienced different aspects of the loss, while fathers usually gave brief 'matter of fact' answers. Although both women and men more freely reported their reactions in clinical encounters than in questionnaires, our impression is, in line with others (e.g. Mandell et al., 1980), that fathers' grief often goes unarticulated. Fathers have generally more difficulties in setting words to their emotions. Although employed women had similar grief scores to the men on the inventories,
they did not differ from women who stayed at home concerning their verbalization of emotions throughout the clinical follow-up.

Data from the child bereavement literature (Tudhope et al., 1986; Nixon & Pearn, 1977; Mandell et al., 1980; Wilson et al., 1982), and from other crisis situations, such as having a child with cancer (Chesler & Barbarin, 1984), also suggests that fathers avoid dealing with their own feelings and utilize their support systems less than mothers. Furthermore, men may have more difficulty in asking for intimate emotional help, or being open to such help, than women (Gourash, 1978). The males' images of strength, family leadership, and being emotionally unaffected, seems to prevent them from expressing their needs and receiving help when needed, while it is more socially acceptable for women to express various emotions. It is also our impression that the social environment is more focused on the mother's reactions, and thus the father's needs are more unrecognized.

It has been speculated whether men are more able to distort the situation in the face of a stressful experience than females (Sowa & Lustman, 1984). The opportunity to concentrate on other aspects of life may be a function of one's occupational (or social) role, more than inborn or socialized traits.

In several couples men scored higher than women on the inventories, so it is probably not male inexpressiveness but masculine inexpressiveness that is the operable phenomenon, as Ganong & Coleman (1985) emphasize. Sex-role orientation in males and females would probably have been more significant in determining how freely emotions were expressed. In forthcoming studies we need to include measures on sex-role orientation.

Employed mothers vs. housewives

We found that the housewives were more distressed than their working counterparts on all measures. The scores of men and working women were similar on most measures. However, these results, and the following discussion must be viewed in light of the small number of women in the two groups, and the lack of background data regarding their occupational choices. There were almost no changes in the occupational status of the mothers following the loss.

The loss of a child may signify less threat to the self of the working mother than the housewife, as their self-image and self-respect also are tied to their occupational role in addition to their role as mothers. The loss of a child threatens the housewives' primary role, and may influence her sense of worth as a mother and a woman. Do housewives place more value on children, become more attached to them, and are they willing to sacrifice more for them? If so, one would expect more distress following a loss.

The data from this study show that mothers who return to work have a grief pattern, as reflected in the inventory scores over time, which are similar to fathers. A job confronts the parent with situational demands that must be met and these are apt to draw one's attention from personal troubles. Returning to work can therefore influence distress level by keeping parents from ruminating about the loss and keeping their thoughts on other issues. Verbrugge (1983) notes that health risks may generally be lower for socially active than for less active people, and that activity level associated with a job leads to less time spent on anxious or depressed states.

In several studies it has been commented on the mothers' loneliness and isolation when staying at home following their child's death (Stringham et al., 1982). There is a tendency for mothers to isolate themselves from their social environment (Berg et al., 1978). This social isolation may be a health hazard for housewives (Lopata, 1971). An inadequate social network appears to place housewives in special jeopardy when they are faced with a crisis—especially a marital crisis (Brown & Harris, 1978).
Housewives experienced more intrusive thoughts than working mothers. In fact the lowest level of intrusiveness experienced by housewives (at 13 months), was higher than the highest level experienced by working mothers (at 6 months). Preoccupation with thoughts about the lost child hinders relinquishment of the attachment, a part of the grief work considered necessary to adapt to the loss. Furthermore housewives are usually faced with a social environment where they are constantly reminded of their loss. Videka-Sherman (1982) found that persistent preoccupation with the death was associated with persisting depression.

The demands on housewives with children at home may be especially hard, as attending to the needs of surviving children can indeed be stressful for mothers (Dyregrov, 1990). The sample was too small to further split it into working mothers with and without children at home and employed women with and without children. However, there was little difference between women with alive children compared to women without living children, except for significantly more depression at 6 months for mothers of living children. A study with a larger number of respondents is called for to differentiate the effects of living children and employment status on the reactions of bereaved parents.

Selective factors may also account for some of the differences between housewives and working mothers. The mothers who enter and keep a job may be more "healthy" originally. The difference may also reflect other differences between working women and women in the housewife role. Due to lack of background data, the study does not permit firm conclusion in this area.

Clinically we have not noted any difference between housewives and working women in their ability to express emotions and thoughts about the loss. We therefore believe that these two groups of women similarly express their emotions, even though one group returns to work. This indicates that the role of the work place as a potential for social support for people in crisis should be more emphasized, and studied in more depth. Specifically, we need to know if the two sexes differs in utilizing social support at their work place.

The low number of women in the two groups, and the existence of several competing hypotheses for the differences between the two female groups, call for systematic research in this specific area.

Grief correspondence within the couples

As in our retrospective study (Dyregrov & Matthiesen, 1987a), we again found that the spouses' grief reactions are correlated, as others also have found (Benfield et al., 1978). This suggests that the spouses influence each other's grief and that there may be family patterns of grieving, 6 months following the loss the two spouses' reaction differed most. This suggests that there is a period in the first year of bereavement when spouses are less well synchronized in their grief. This should be taken into account when counselling efforts are considered. This is a period when mothers often complain bitterly to the counsellor about the lack of support they receive from their social network—and when the father is sometimes felt to "join the opposition".

Methodological comments

The results presented here are based on a relatively small sample, with a high attrition rate which also increased with time. The attrition rate is high(er) in other comparable studies (e.g. Cooper, 1980; Videka-Sherman, 1982). In a follow-up study Videka-Sherman (1982) surveyed parents at two time points following a child loss, and only 17% of her original parents answered at the second time point. From other research on bereavement it is known that non-responders usually are more emotionally affected following a loss than responders (Clarke & Williams, 1979; Cooper, 1980; Lehman et al., 1987). If so, our results may be
biased towards a better adjustment in parents than what would have been expected if all parents returned their questionnaires throughout the study period. However, analyses showed that there were no differences on the grief inventories between parents who only responded at 1 month, compared to those who answered several times.

CONCLUSION

1. There is a reduction in grief scores over the first year. However, the decline is largest from 6 to 13 months, and the reduction is largest in women. 2. On most measures the mother reports more grief than the father at the three time points. 3. The mother’s grief reactions differ according to their occupational role. Mothers occupied outside the home report less grief than housewives. 4. The spouses reactions were found to correlate more at 1 and 13 months than at 6 months.

The results presented here have implications for the counselling of parents who have lost children. Although there is a decline in grief over time, there are a considerable number of parents who experience distress more than a year following their loss. Bereavement counselling programs have to address the need for long-term follow-up as well as the different needs of those employed outside the home and those working at home. In particular there is a need to note that housewives as a group are more at risk for developing adverse reactions as a consequence of their loss than women employed outside the home. Individual counselling aimed at reducing parents’ distress needs to be sensitive to this. When the mother stays at home following the loss, the discrepancy between the mother’s and the father’s grief will be most pronounced, and one would expect the risk of marital difficulties to be greater. Periodical follow-up with families should therefore be arranged.

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