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Psychological outcomes following missed abortions and provision of follow-up care

A. V. Nikcevic, S. A. Tunkel and K. H. Nicolaides

Harris Birthright Research Centre for Fetal Medicine, King's College Hospital Medical School, London, UK

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ABSTRACT

This cross-sectional study of 204 women who had experienced a missed abortion, diagnosed at 10–14 weeks of pregnancy, examined the availability and desirability of routine follow-up care, and whether such care is associated with reduced psychological morbidity in the aftermath of miscarriage. Clinically elevated anxiety and depression were observed in 45% and 15% of women, respectively, and the mean score of grief was 2.52 which is similar to that observed in people who suffer death of a close relative. A follow-up appointment after the miscarriage was thought to have been desirable by 92% of women but was offered to only 30%. No significant association between such care and reduced psychological morbidity was identified. However, there were significantly more women with clinically elevated levels of anxiety among those who felt that they were not provided with an opportunity to discuss their feelings during the follow-up, suggesting that such a follow-up either had a deleterious effect on women's psychological state or the distress itself led to such a perception of care. One-third of women in our sample would have liked psychological counselling to help them deal with the emotional aspects of their loss.

INTRODUCTION

The 10–14-week ultrasound scan is being introduced into routine antenatal care for early diagnosis of major defects and effective screening for chromosomal abnormalities. During such a scan, in about 3% of pregnancies, the diagnosis of missed abortion is made[1].

The loss of an early pregnancy may be accompanied by considerable emotional distress. Systematic investigations of women's responses to miscarriage have demonstrated significant psychological morbidity, including anxiety and depression, which may be elevated for at least a year after the event and the levels may not differ from those in women who experience late miscarriage or stillbirth[2–6].

Follow-up care of women who have experienced miscarriage is not routine practice, despite the availability of several descriptive reports that, when such care is offered, it is likely to be well attended and it may promote emotional adjustment[7,8]. Neugebauer and colleagues[3] found that a telephone interview conducted at 2 weeks after pregnancy loss was associated with a significant reduction in the prevalence of depressive symptoms at 6 weeks and at 6 months after miscarriage. It was believed that early interviews had therapeutic effects because they allowed women to discuss the pregnancy, the circumstances of the miscarriage and its psychological after-effects.

The aim of the present survey of women who had experienced miscarriage was to determine the availability and desirability of routine follow-up care, and whether such care is associated with reduced psychological morbidity following the pregnancy loss.

METHOD

The study was conducted at the Harris Birthright Research Centre for Fetal Medicine (HBRC), London. Pregnant women living in London and the surrounding areas were invited to participate in an ultrasound screening study for chromosomal abnormalities at 10–14 weeks of gestation[9]. Following the diagnosis of a missed abortion, women were referred to their local hospitals for the evacuation of the retained products of conception.

A computer search of our database was made according to the following selection criteria: diagnosis of a missed abortion or an anembryonic pregnancy at 10–14 weeks of gestation during a 13-month period (January 1995 to March 1996), and absence of a history of elective termination for fetal abnormality, stillbirth or neonatal death. There were 327 women who fulfilled the entry criteria. However, 59 (18%) of those could not be contacted either because their telephone was disconnected or because they had changed address. Therefore, there were 268 eligible women who were contacted by telephone; 263 (99%) agreed to receive the study questionnaire. A covering letter

Correspondence: Dr A. V. Nikcevic, Harris Birthright Research Centre for Fetal Medicine, King's College Hospital Medical School, Denmark Hill, London SE5 8RX, UK

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from the Director of the Centre explaining the aims of the study, a patient consent form and a stamped self-addressed envelope were sent together with the questionnaire. The study was approved by the Hospital Research Ethics Committee.

The outcome variables of interest were anxiety, depression and grief. Anxiety and depression were assessed by the Hospital Anxiety and Depression Scale (HADS), which consists of 14 items, seven assessing anxiety and seven assessing depression, each being scored from 0 to 3 so that the total scores range from 0 to 21 for each subscale; the cut-off point of 8 is used to suggest the possible presence of a clinical disorder, whilst the score of 11 is the threshold score for probable psychiatric 'caseness' with the lowest rates of false positives[10,11]. The level of grief was assessed by a modified version of the Expanded Texas Inventory of Grief[12]. The original inventory was designed for measuring grief-related behaviors and feelings in people who had lost a close family member or friend. Inappropriate items, such as 'I've never known a better person', were omitted. The final modified version of the Inventory consisted of 17 items. For each item, a mean score was calculated so that the overall mean score for all items ranged from 1 to 5, higher mean values indicating higher degree of grief-related behaviors and feelings.

A questionnaire designed for the purpose of the study and inquiring about women's follow-up care was also mailed. Specifically, the questions examined:

(1) Whether a follow-up after miscarriage would be helpful;

(2) Whether a follow-up either by their hospital or by their general practitioner was offered to them;

(3) Whether they attended the follow-up or not;

(4) Whether they had an opportunity to discuss their feelings about the miscarriage during the follow-up;

(5) How long after the miscarriage such a follow-up should be organized;

(6) Who they think is the most appropriate medical professional to conduct the follow-up;

(7) Which issues should be discussed during such a follow-up;

(8) Whether they had contacted the Miscarriage Association; and

(9) Whether they would find it useful to have some help/guidance from a counsellor concerning the emotional aspects of their loss.

Table 1 Demographic, obstetric and outcome variables of the study group, and for the subgroups of those not offered and those who attended a follow-up clinic. Values in parentheses represent either the range, percentage of number of cases in each group or, where indicated, the standard deviation

		Follow-up	
	All cases (n = 204)	*Not offered* (n = 143)	*Attended* (n = 52)
Demographics			
Median time since miscarriage (days)	187 (19–400)	187 (19–398)	211.5 (32–396)
Median age (years)	36 (24–45)	36 (24–45)	37 (25–44)
University education	83 (41%)	59 (41%)	21 (41%)
Caucasian	195 (96%)	135 (94%)	51 (98%)
Obstetrics			
Living child(ren)	122 (60%)	91 (64%)	26 (50%)
Previous miscarriage	67 (33%)	46 (32%)	17 (33%)
Assisted conception	12 (6%)	7 (5%)	4 (8%)
Pregnancy planned	173 (85%)	124 (87%)	40 (77%)
Anxiety			
Mean score (SD)	7.12 (4.02)	6.94 (3.99)	7.85 (4.17)
Score ≥ 8	91 (45%)	60 (42%)	28 (54%)
Score ≥ 11	47 (23%)	30 (21%)	16 (31%)
Depression			
Mean score (SD)	3.67 (3.37)	3.70 (3.42)	3.62 (3.32)
Score ≥ 8	31 (15%)	20 (14%)	11 (21%)
Score ≥ 11	7 (3%)	6 (4%)	0 (0%)
Grief			
Mean score (SD)	2.52 (0.73)	2.49 (0.73)	2.58 (0.73)
Miscarriage Association contacted?			
Yes	18 (9%)	9 (6%)	8 (15%)*
Emotional counselling would be helpful?			
Yes	72 (35%)	50 (35%)	21 (40%)

The significance of differences between the groups was tested by t test for comparison of means and χ^2 test for comparison of proportions. There were no significant differences between the groups other than in the proportion of those contacting the Miscarriage Association (*$p < 0.05$)

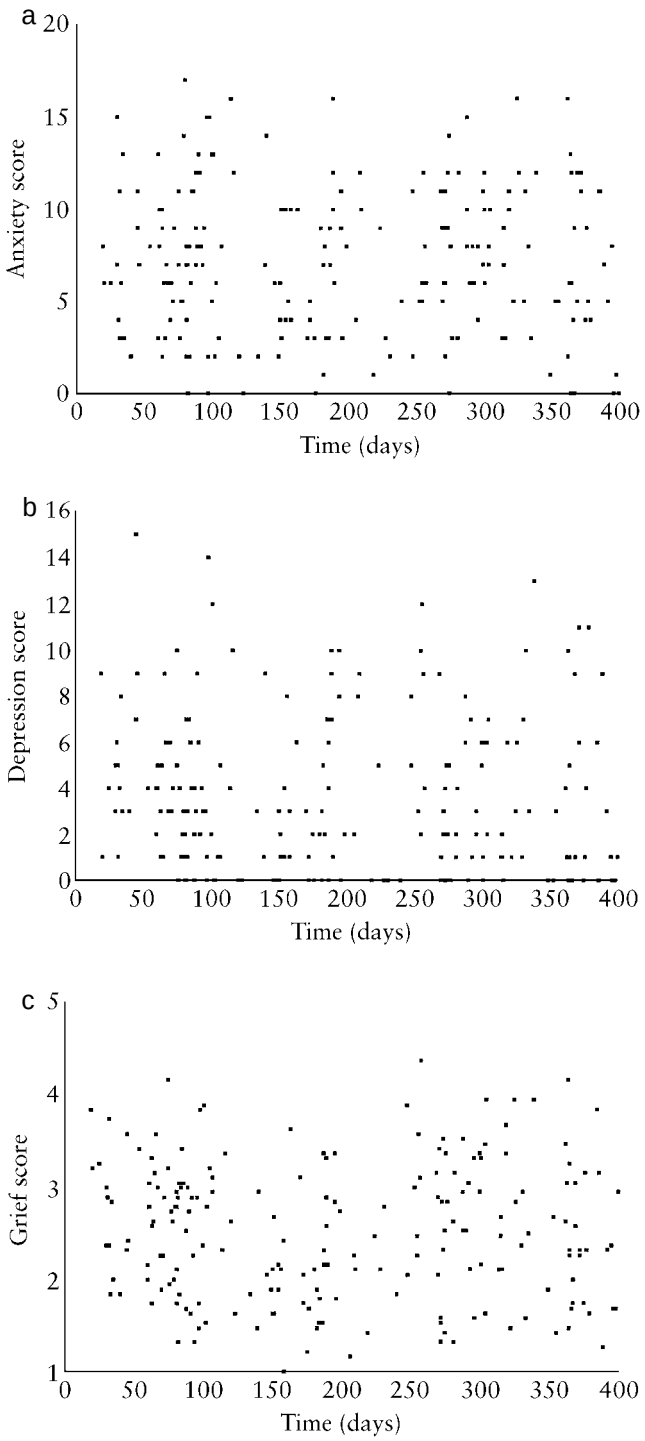

Figure 1 Anxiety (a), depression (b) and grief scores (c) in relation to time interval between the miscarriage and the study

RESULTS

The questionnaires were returned by 211 women (response rate 80%); 204 were fully completed, and hence were included in the analysis. The median age was 36 years, the median time between the miscarriage and completion of the questionnaire was 187 days, 96% of the women were Caucasian, 41% were university graduates, 60% had living children, 33% had suffered a previous miscarriage and in 94% conception was spontaneous whereas in 6% various assisted conception techniques had been used (Table 1).

Clinically elevated anxiety and depression were observed in 45% and 15% of women, respectively, and the mean score of grief was 2.52 (Table 1, Figure 1). There was no significant association between the time interval since the miscarriage and anxiety ($r = -0.04$, $p = 0.59$, two-tailed), depression ($r = -0.06$, $p = 0.40$, two-tailed), or grief ($r = -0.40$, $p = 0.56$, two-tailed) (Figure 1). The correlation coefficients between anxiety and grief ($r = 0.50$, $p < 0.01$, two-tailed) and between depression and grief ($r = 0.53$, $p < 0.01$, two-tailed), were of moderate strength and highly significant.

A follow-up appointment was thought to have been desirable by 187 (92%) of the 204 women. However, such an appointment, either by the local hospital or by their general practitioner, was offered to only 61 (30%) of the 204 women; 52 of these attended, four did not and five others are yet to attend.

Comparison of those women who had a follow-up ($n = 52$) and those who were not offered one ($n = 143$) did not demonstrate any significant differences in either the demographic and obstetric characteristics or the outcome variables (Table 1).

The group of women who attended the follow-up were subdivided into two subgroups according to their answers to the question: 'Were you given an opportunity to discuss your feelings during the follow-up?'. In 42% (22) of cases women reported not being given such an opportunity, and in 58% (30) of cases they reported being given such an opportunity. Three one-way analyses of variance (ANOVA) were used to compare these two subgroups and the 'no follow-up' group. Significant differences were identified for both anxiety and depression but not for grief ($F(2, 192) = 4.46$, $p < 0.05$, for anxiety; $F(2, 192) = 4.23$, $p < 0.05$, for depression; $F(2, 191) = 1.06$, $p = 0.35$, for grief). The group who attended the follow-up but felt that they were not given the opportunity to discuss their feelings had significantly higher mean scores for both anxiety and depression than the group of women who did not have any follow-up care and the group of those who attended the follow-up and felt that they had an opportunity to discuss their feelings. Similarly, the proportion of women with clinically elevated levels of anxiety among those who felt that they were not provided with an opportunity to discuss their feelings was significantly higher than the proportion of women with clinically elevated anxiety in the other two groups. The groups did not differ in any of the demographic and/or obstetric variables (Table 2).

A series of questions assessed the expectations from a follow-up clinic. In 72% of cases it was suggested that the clinic should be conducted by a doctor, whereas 28% would have preferred to see a midwife or counsellor. The most important issues that women wanted to be discussed in the clinic are illustrated in Figure 2. Out of 204 women, 177 (87%) reported, on a 5-point rating scale, that it was 'very' or 'extremely' important to them to have an explanation as to why the miscarriage happened. The majority of women, 162 (79%), found the miscarriage experience 'very

Table 2 Comparison of women not offered follow-up (NFU) and those who attended but were not given an opportunity to discuss their feelings (FND) and those who attended and were given an opportunity to discuss their feelings (FD) on demographic, obstetric and outcome variables; *p* values for significance of differences between the groups are presented

		Attended (n = 52)		
	Not offered (NFU) (n = 143)	*FND* (n = 22)	*FD* (n = 30)	*p Value*
Demographics				
Median time since miscarriage (days)	187 (19–398)	195 (45–385)	250 (32–396)	NS
Median women's age (years)	36 (24–45)	38 (25–44)	36 (27–42)	NS
University education	59 (41%)	11 (50%)	10 (33%)	NS
Obstetrics				
Living child(ren)	91 (64%)	11 (50%)	15 (50%)	NS
Previous miscarriage	46 (32%)	10 (45%)	7 (23%)	NS
Assisted conception	7 (5%)	2 (9%)	2 (7%)	NS
Pregnancy planned	124 (87%)	16 (73%)	24 (80%)	NS
Anxiety				
Mean score (SD)	6.94 (3.99)	9.55 (3.75)	6.60 (4.08)	< 0.05
Score ≥ 8	60 (42%)	16 (73%)	12 (40%)	< 0.05
NFU vs. FND				< 0.01
FD vs. FND				< 0.05
NFU vs. FD				NS
Score ≥ 11	30 (21%)	11 (50%)	5 (17%)	< 0.05
NFU vs. FND				< 0.01
FD vs. FND				< 0.05
NFU vs. FD				NS
Depression				
Mean score (SD)	3.70 (3.42)	5.18 (3.46)	2.47 (2.74)	< 0.05
Score ≥ 8	20 (14%)	7 (32%)	4 (13%)	NS
NFU vs. FND				< 0.05
FD vs. FND				NS
NFU vs. FD				NS
Score ≥ 11	6 (4%)	0 (0%)	0 (0%)	
Grief				
Mean score (SD)	2.49 (0.73)	2.68 (0.65)	2.51 (0.78)	NS

The significances of differences between the groups were tested by analysis of variance (ANOVA) for comparison of means and χ^2 or Fisher's exact tests were used to test the differences between the proportions of women in each of the subgroups

stressful'. Although, prior to the discharge from the HBRC, all women were given an information leaflet that included the telephone number of the Miscarriage Association, only 9% (18/204) of women had made the contact, significantly more so in the group that attended a follow-up clinic.

Out of 204 women, 73 (36%) reported that they would find emotional counselling helpful. The comparison between women who expressed a wish for emotional counselling and those who did not revealed that women from the latter group had significantly lower levels of anxiety, depression and grief (t test = –2.44, d.f. = 200, $p < 0.05$ for anxiety, t test = –2.51, d.f. = 200, $p < 0.05$ for depression, t test = –4.30, d.f. = 199, $p < 0.001$, for grief). They did not differ significantly on any of the demographic or obstetric variables. There were no significant differences in the proportions of women expressing the desire for emotional counselling between 'No follow-up' (35%), 'Feelings discussed' (43%) and 'Feelings not discussed' (36%) groups ($p = 0.75$).

An open-ended question in the study questionnaire, inquiring about women's opinion as to the ways of improving support from medical professionals, revealed that many women wanted more information concerning reasons for their miscarriage and its implications, outlined the importance of a sensitive and sympathetic attitude on the part of medical professionals involved in their care and emphasized the fact that evacuation of the retained products of conception after miscarriage is a trauma that is too often dismissed as a routine surgical procedure by the medical staff involved.

DISCUSSION

This cross-sectional study of women following the diagnosis of a (missed) miscarriage during a routine scan at 10–14 weeks of pregnancy has demonstrated high levels of anxiety and grief that did not change significantly with time during the interval of 19–400 days. Clinically elevated levels of anxiety and depression were found in 45% and 15% of the women, respectively, and the threshold score for the probable diagnosis of psychiatric anxiety and depression 'cases' was met by 23% and 3% of women, respectively. These findings, suggesting that anxiety rather than depression is a more prominent psychological response to early pregnancy loss, are compatible with those of previous studies[4,13,14] that have typically identified

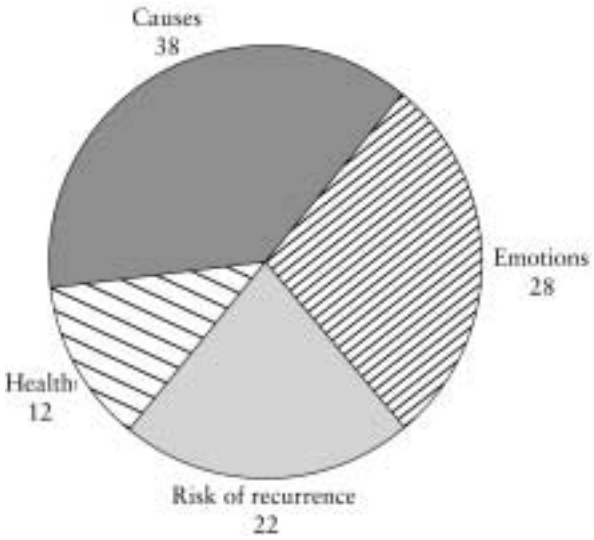

Figure 2 The issues women wanted to be discussed during miscarriage follow-up (percentages given)

elevation in anxiety rather than in depression in the months following the miscarriage. Furthermore, compared to community-based epidemiological studies, our study found the prevalence of anxiety cases about three times as high, whereas the prevalence of depressive cases was not higher[15–17]. The mean level of grief-related behaviors and feelings in our sample was at least as high as that in people who had lost a close relative (mean score for women with miscarriages was 2.52, mean scores for people who suffered death of a close relative was 2.23)[12].

We found no significant differences in the levels of anxiety, depression and grief between women who attended a follow-up appointment following the diagnosis of a missed abortion and those who did not have any follow-up care. However, our results demonstrated that there were significantly more women with clinically elevated levels of anxiety among those who felt that they were not provided with an opportunity to discuss their feelings during the follow-up. The proportion of women with clinically elevated levels of anxiety and depression did not differ between those with no follow-up care and those who had a follow-up during which they were able to discuss their feelings concerning the miscarriage.

A possible explanation for our findings is that a follow-up that did not provide women with an opportunity to ventilate some of the feelings concerning their pregnancy loss had a deleterious effect on women's emotional well-being. It could be that some medical professionals, either because of time constraints, or because of personal discomfort in counselling highly distressed women, 'blocked' women's expression of feelings during the follow-up, which resulted in an increase in the women's anxiety. In a survey of the attitudes of the primary health-care team, Prettyman and Cordle[18] found that the majority of general practitioners agreed that there is a need for psychological support and counselling of women following miscarriage. However, only 21% felt very confident to provide such routine counselling.

An alternative explanation for our findings is that distress itself led to the distortion of women's perception of the follow-up care given. Thus, some highly distressed women, because of their emotional state, did not perceive themselves as being given an opportunity to discuss their feelings during the follow-up. Since they needed extended emotional counselling, they perceived a routine consultation during the follow-up as providing them with a limited opportunity to discuss their feelings and concerns.

The findings obtained in this study are inconsistent with some reports in the miscarriage literature that suggested a beneficial effect of a routine follow-up that encouraged expression of feelings on women's psychological state in the aftermath of miscarriage[7,8]. However, the reliability of these findings is questionable, owing to methodological difficulties (e.g. the studies were descriptive and did not use standardized instruments for the assessment of psychological responses of grief and depression). Only one controlled, randomized study to date has evaluated the impact of the psychological intervention, i.e. psychological debriefing on women's affective state[14]. The investigators did not find any differences at 4 months following miscarriage between the intervention and the control group.

A possible conclusion from our findings is that routine follow-up is not associated with reduced psychological morbidity in women who suffered an early miscarriage. However, it is also possible that the beneficial effect of the follow-up was either 'lost' over a period of time or it is 'hidden' within the cross-sectional nature of the study. Furthermore, since no randomization was employed, we cannot exclude the possibility that a bias occurred concerning the way in which the follow-up care was offered, so that the greater proportion of distressed women were offered a follow-up appointment by their local hospitals or general practitioners. The only way to illuminate these issues further is by conducting randomized studies.

This study has highlighted the finding that more than 90% of women who experienced a miscarriage felt that a follow-up clinic would have been beneficial and the majority preferred to be seen by a doctor rather than a midwife or counsellor. They wished to learn more about the possible reasons for their miscarriages and the recurrence risks in future pregnancies, but they also wished to be given the opportunity to discuss their feelings. One-third of women in our sample would have found emotional counselling helpful. These women had significantly higher levels of anxiety, depression and grief than those who expressed no wish for emotional counselling.

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