Grieving After Early Pregnancy Loss - A Common Reality

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Abstract
A miscarriage can be very traumatic for a couple and their immediate family. The aim of this study was to assess, using the Perinatal Grief Scale (PGS), whether the type of early pregnancy loss influences the severity of grief and whether the presence of living children influences the severity of grief. Over a period of 6 months in 2008, seventy five patients were recruited for the study, of which 7 (9.3%) had molar pregnancies, 20 (26.7%) had ectopic pregnancies, 43 (57.3%) had a miscarriage and 5 (6.7%) had recurrent miscarriages. In this study there was no significant difference in severity of grief, between women that had a miscarriage and ectopic pregnancy (p=0.14) or, between women that had a miscarriage and a molar pregnancy (p=0.85). Women who had experienced a ectopic pregnancy did not have a higher grief intensity than the women that had a molar pregnancy (p=0.75). However, for women with a child, the grief intensity significantly increases with the number of miscarriages (p=0.015). Women with no children with an ectopic pregnancy grieve significantly more than those with a child (p=0.019). An appointment for the â Miscarriage Clinicâ should be offered to all of these women but special attention should be paid to those in the categories most at risk.

Introduction
The loss of a baby by a miscarriage can be very traumatic for a couple and their immediate family [1]. Women who experience an early pregnancy loss may express their grief with many different responses [2]. These women feel the loss of self-identity, the loss of anticipated parenthood, and hence their future. A significant amount of women feel the need for psychological counselling to help them deal with the emotional aspect of their pregnancy loss [3]. Over 90% of women feel the need for a follow up appointment [3]. Risk factors that predispose a woman who has miscarried to greater psychological morbidity include a previous history of psychiatric illness, childlessness, prior pregnancy loss, lack of social support or poor marital adjustment [4-6]. Miscarriage can be a significant event in couples lives and the experienced feelings of grief have been found to persist for four months to up to a year after the loss [4,7].

Miscarriage has been reported to occur in up to 20% of all pregnancies [8]. It is clearly evident, that the time surrounding a miscarriage can be extremely distressing for some women and there may be a significant level of anxiety [9], not only at the time of the pregnancy loss in question but also in future pregnancies [10]. Women still focus on their loss years after the miscarriage [11]. Approximately 1 in 5 women will have suffered a significant grief reaction by 8 weeks after a pregnancy loss [8]. It is essential that hospital staff, along with tending to their medical needs, also focus on their psychological wellbeing. It is our job as clinicians to offer support to all women who have had a loss, but we must be able to identify and focus on these women that are significantly more at risk. The aim of the study was to highlight categories of women who are vulnerable to more significant levels of grieving.

Methods
A cross-sectional study was performed at the Rotunda Hospital which is a University affiliated maternity hospital in Dublin. The study was conducted over a period of six months from 01/07/2008 to 31/12/2008. All patients attending the Miscarriage Clinic 6 weeks after an early pregnancy loss were invited to take part in the study. Ethics committee approval was obtained from the Rotunda Hospital research ethics committee prior to starting the study. Inclusion criteria were all women who had a pregnancy loss prior to 16 weeks of pregnancy and who gave valid consent. Women who were unable to read English and who attended without an interpreter were excluded from the study. Each patient was given a patient information leaflet and written informed consent was obtained in all cases.

Women were divided into three main categories: molar pregnancies, ectopic pregnancies and miscarriages. Grief was assessed using the Perinatal Grief Scale (PGS) which is a scoring system used to quantify levels of grief experienced by women after a miscarriage. The short version of the PGS, devised by Potvin, Lasker and Toedter (1989), is a 33 point questionnaire which was constructed to incorporate the many different dimensions of grief [12]. The total PGS score is arrived at by first reversing all of the items except 11 and 33. By reversing the items, higher scores reflect more intense grief. The scores are added together. The result is a total scale consisting of 33 items with a possible range of 33-165. Women were given ample time to complete the PGS and some patients did choose to fill the form out at home and return it at a later date. Analysis was carries out in MatLab using the statistics toolbox. The goal was to test whether the scores of each group have a different mean.

Results
Over the six month period, 75 patients were recruited to the study. As depicted in Table 1, seven patients were diagnosed with a molar pregnancy. The mean PGS score of these seven patients was 89.7. Five out of the seven patients had a live child prior to the molar pregnancy. The mean PGS score in this group was 89.0. The other two patients with molar pregnancy, that had no children, had a mean PGS score of 91.5. Of the 75 patients recruited, twenty patients had an ectopic pregnancy. The mean score in this group of patients was 93.9. Data on the parity of these women was only available in 18 out of the 20 women as it was not recorded in the hospital case notes. The 8 women who had living children prior to the ectopic pregnancy had a mean PGS score of 72.5. There were 10 women who had an ectopic pregnancy and no living children. These women had a mean PGS score that was higher, at a level of 105.

Forty-three women attended after a miscarriage. Of these 43 women, 17 of them had living children and a mean PGS score of 82.8. The 26 women that did not have living children did not grieve substantially more and were found to have a PGS score of 83.7. Of the 17 women that had living children 12 were attending after their first miscarriage. The average PGS score in this group was 72.2. The other 5 women (who had living children) were attending after their second miscarriage and had a substantially higher PGS score of 104.2. Women who had their first miscarriage but had no living children had a mean PGS score of 81.1. This was in contrast to those after their second miscarriage (with no living children) who had a mean PGS score of 94.2. There is a trend towards increased grief in patients with more losses. Only 5 women attended the clinic after 3 consecutive early pregnancy losses. The mean score in this group was 86.6.

igure 1 shows histograms of the three groups: molar pregnancy patients, ectopic pregnancy patients and miscarriage patients. It is strongly suggested that the groups have very similar distributions. An F-test was performed, first to check whether the variances within the groups were fairly close, followed by the t-test. The results suggested molar vs ectopic: p=51.795%, molar vs miscarriage: p=87.6142%, ectopic vs miscarriage: p=14.35%. In accordance with the results above, we proceeded to the t-test. The data suggests that when comparing molar vs ectopic pregnancies p=74.891%. When comparing molar vs miscarriage pregnancies p=51.4864%. When comparing ectopic vs miscarriage pregnancies p=14.2943%. ANOVA was conducted and the resultant p value was 31.97%. Both with the t-test and ANOVA, we cannot reject the null hypothesis that the means are equal. This suggests that women with a molar pregnancy or an ectopic pregnancy do not grieve very differently from women who have a miscarriage. The subgroup of recurrent miscarriage was not included in the statistical analysis as the number of patients was too small.

Figure 1: Histograms comparing grief in Molar, Ectopic pregnancies and Miscarriages.

Figure 2: Histograms comparing PGS scores in Ectopic Pregnancies with no living children vs. living children.

Figure 2 shows the sub group analysis that was carried out on the group who had ectopic pregnancies, women with no living children were compared with women who had living children. The F-test suggested a p value of 40.9961% and the t-test suggested a p value of 1.91431%. The ANOVA p=1.91431% (ANOVA for 2 groups is equivalent to the t-test). This result is significant because it shows us that women who have had an ectopic pregnancy with no living children grieve more than women with living children.

Sub-group analysis was carried out in the miscarriage category: women with no children on their first miscarriage were compared to women with no children on their second miscarriage. The F-test p value=72.5519% and the t-test p value= 18.1081%. The ANOVA p=18.1081%. This suggests that there is no difference in grieving between these 2 groups of patients. Sub-group analysis was further carried out looking at women who had a living child who had their first miscarriage and women with a living child who had their second miscarriage. The F-test p=11.098% and the t-test p=1.4685%. The ANOVA p=1.4685%. This result is significant and suggests that women with a living child on their second miscarriage grieve more that women on their first miscarriage. No sub-group analysis was carried out in the molar

pregnancy category because the numbers were too small.

Discussion

There has been much focus on early pregnancy loss in recent times. MJ Turner et al demonstrated that women who have planned pregnancies that miscarry are more likely to attend a miscarriage clinic followup visit [13]. It has been noted that fifty percent of partners may experience some kind of psychological morbidity after a pregnancy miscarriage [14]. One study from Dublin found that women who were allowed to discuss their miscarriage at a followup visit were found to be less distressed than those that did not have the opportunity to do so [15]. This raises important questions as to whether all women who have had an early pregnancy loss should be offered the opportunity of a followup visit in the hospital for advice, information and support. Numerous research groups have used different standardised questionnaires to assess grief. Yet the most widely used questionnaire in the literature seems to be the PGS [12]. The PGS was selected for this study as it is comprehensive, yet easy to understand and answer.

The results of this study suggest that whatever the type of early pregnancy loss women tend to grieve similarly. However, for women with a child the grief intensity increases with the number of miscarriages. Women with no children who have had an ectopic pregnancy grieve more than those with a child. This brings to light that women without children who have had an ectopic pregnancy are likely to suffer a more intense grief reaction. Such women should be encouraged to return to the miscarriage clinic for a followup session. While interpreting this data it is important to note that the numbers are small in each group. Most women who miscarry do not actually attend the miscarriage clinic. These results are extrapolated from women that actually choose to attend the miscarriage clinic. Ectopic pregnancies account for over 25% of the total number of patients in the study, but 25% of early pregnancy loss is not attributable to ectopic pregnancies. Likewise molar pregnancies account for over 5% of the total number of cases while it is much lower in the general population. One may argue that the study evaluates a select population, but, nevertheless this study was designed to evaluate the grief in women who follow up after an early pregnancy loss, to identify trends amongst the various groups.

We must all be aware that women do not all grieve equally. It is also true that grief is compounded not only by the bereavement but also by other factors such as social circumstances and marital disharmony. Reassurance and empathy are essential in managing these women. Advice information and support should be offered to all of these women and their partners [16] but special attention should be paid to those in the categories most at risk.

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