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Differences in post-traumatic stress, anxiety and depression following miscarriage or ectopic pregnancy between women and their partners: multicenter prospective cohort study

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KEYWORDS: anxiety; depression; ectopic pregnancy; miscarriage; post-traumatic stress disorder

CONTRIBUTION

What are the novel findings of this work?
This is the first study to use a standardized psychometric instrument to assess for symptoms of post-traumatic stress in partners of women who experienced early pregnancy loss. All partners recruited were male. We found that a small proportion of partners met the screening criteria for post-traumatic stress, which was lower than the proportion of women meeting the criteria, throughout the 9-month follow-up.

What are the clinical implications of this work?
There is considerable disparity in the emotional response to early pregnancy loss between women and their partners, which may impact on their relationship. Although less frequent, some partners report clinically relevant levels of anxiety, depression and post-traumatic stress symptoms after a loss. Clinicians should consider onward assessment or treatment.

ABSTRACT

Objectives *To investigate and compare post-traumatic stress (PTS), depression and anxiety in women and their partners over a 9-month period following miscarriage or ectopic pregnancy.*

Methods *This was a prospective cohort study. Consecutive women and their partners were approached in the early pregnancy units of three hospitals in central London. At 1, 3 and 9 months after early pregnancy loss, recruits were e-mailed links to surveys containing the Hospital Anxiety and Depression Scale and the Post-traumatic Stress Diagnostic Scale. The proportion of participants meeting the screening criteria for moderate or severe anxiety or depression and PTS was assessed. Mixed-effects logistic regression was used to analyze differences between women and their partners and their evolution over time.*

Results *In total, 386 partners were approached after the woman in whom the early pregnancy loss had been diagnosed consented to participate, and 192 couples were recruited. All partners were male. Response rates were 60%, 48% and 39% for partners and 78%, 70% and 59% for women, at 1, 3 and 9 months, respectively. Of the partners, 7% met the criteria for PTS at 1 month, 8% at 3 months and 4% at 9 months, compared with 34%, 26% and 21% of women, respectively. Partners also experienced lower rates of moderate/severe anxiety (6%* vs *30% at 1 month, 9%* vs *25% at 3 months and 6%* vs *22% at 9 months) and moderate/severe depression (2%* vs *10% at 1 month, 5%* vs *8% at 3 months and 1%* vs *7% at 9 months). The odds ratios for psychological morbidity in partners* vs *women after 1 month were 0.02 (95% CI, 0.004–0.12) for PTS, 0.05 (95% CI, 0.01–0.19) for moderate/severe anxiety and 0.15 (95% CI, 0.02–0.96) for moderate/severe depression. Morbidity for each outcome decreased modestly over time, without strong*

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evidence of a different evolution between women and their partners.

Conclusions *Some partners report clinically relevant levels of PTS, anxiety and depression after pregnancy loss, though to a far lesser extent than women physically experiencing the loss.* © *2020 International Society of Ultrasound in Obstetrics and Gynecology*

INTRODUCTION

Both partners may grieve the loss of a wanted pregnancy. However, differences in emotional response are to be expected. There may be underlying differences in attachment to an unborn child relating to the lack of any physical experience in one partner. The majority of partners are male, and there may be psychological differences between men and women and societal pressures for men to support the woman and/or not to grieve[1].

Qualitative studies have shown that partners may feel burdened by the grief or depressive reactions of the person physically experiencing the loss[2], or feel inadequate and frustrated by their inability to influence the outcome[3]. There is often a lack of regard for their own bereavement by family or friends, and they may feel marginalized[4]. Support from healthcare professionals may be suboptimal[5]. Partners may also be traumatized by seeing the physical pain experienced by the woman during the loss, by perceiving a life-threatening situation or by directly witnessing the miscarriage.

Quantitative data, to date, suggest that women experiencing a miscarriage have higher anxiety and depression scores than do their partners at multiple timepoints; a significant difference was found to persist to 13 months in the study of Cumming *et al.*[6] but not in two other studies[2,7]. No studies to date have compared post-traumatic stress (PTS) symptoms. One study comparing 68 partners after a miscarriage with 210 partners after a live birth showed higher traumatic impact (higher scores on the Impact of Events Scale) within 3 weeks and at 1 year after miscarriage[8]. Depression scores were also higher at 1 year. There is no published evidence on the emotional reaction of partners to ectopic pregnancy. There have also been no published quantitative data of any kind on the emotional response of partners for the last decade[9].

The aim of this study was to assess the psychological morbidity of partners during the 9 months after miscarriage or ectopic pregnancy, including symptoms of PTS. A further aim was to compare the psychological reaction between partners and the women in whom the loss was diagnosed.

METHODS

Study design

This is the second report from the Psychological Impact of Early Pregnancy Events (PIEPE) prospective cohort study. The first report focused on psychological morbidity in all women experiencing early pregnancy loss; in this report, we include only the subgroup of women whose partners were recruited. Ethical approval for the study protocol was granted by the Research Ethics Service committee of South-West Exeter, reference 11/SW/0052. The sample size of women was calculated based on a further aim of PIEPE to investigate for potential risk factors for psychological morbidity[10]; the sample size was not adapted to this research.

Recruitment took place in the early pregnancy assessment units of three central-London hospitals (Queen Charlotte's and Chelsea, St Mary's, and Chelsea and Westminster Hospitals) between 13th November 2013 and 11th February 2016. Recruitment was consecutive on the days on which an investigator was available and took place on the day of diagnosis of early pregnancy loss or at any subsequent follow-up within 1 month after diagnosis. If present at the consultation, partners were approached along with the woman experiencing the loss. They were recruited only if the index woman consented to take part. Although recruitment was open to same-sex couples and transgender individuals, only cisgender opposite-sex couples were encountered (thus, 'woman' refers to the person physically experiencing the loss and 'partner' refers to the man who would be assumed to take on the role of the father had the pregnancy been successful).

Clinical management was unaltered by involvement in the study and was in line with national guidance. Women with a miscarriage were offered expectant, medical or surgical management. Depending on symptoms, ultrasound findings and serum hormone levels, women with an ectopic pregnancy were offered expectant management, methotrexate or surgical intervention (usually laparoscopic salpingectomy).

All women and their partners were separately e-mailed a link to a survey 1, 3 and 9 months after the diagnosis of loss; the e-mails always included a reminder that they were free to withdraw from the study. A lack of response without active withdrawal prompted up to two reminder e-mails at weekly intervals.

Participants

Couples eligible for participation had received a diagnosis of miscarriage (a small number of which were later confirmed to be molar pregnancies), resolving or persistent pregnancy of unknown location or ectopic pregnancy at a gestational age of < 20 weeks. Exclusion criteria were participant under 18 years of age, lack of proficiency in the English language, inability to give informed consent and voluntary termination of pregnancy.

Clinical, demographic and background information

Information regarding the clinical encounter, including diagnosis and management, were recorded prospectively. The participant's age and the number of past pregnancy losses or live births, among other details, were requested at the start of the first questionnaire.

Measures

The participants were asked to complete a number of psychometric screening questionnaires presented in the same order. For the purposes of this study, we limited the analysis to anxiety and depression (using the Hospital Anxiety and Depression Scale (HADS)) and PTS (using the Post-traumatic Stress Diagnostic Scale (PDS)). Both scales are well validated and have been used previously in the pregnancy-loss population[11,12]. Since the start of this study, post-traumatic stress disorder (PTSD) diagnostic criteria have changed: the *Diagnostic Manual of Mental Disorders-IV* (DSM-IV) was updated to DSM-5 in 2013. The PDS screens according to pre-2013 criteria, however evidence suggests that DSM-IV criteria can be used to closely approximate the new criteria[13].

HADS comprises 14 questions, with seven each related to anxiety and depression[14]. Each subscale measures symptom severity, scoring out of a total of 21, with a score of ≥ 11 indicating moderate or severe symptoms. PDS contains 17 items, with an overall symptom severity score out of 51. Questions relate mainly to the specific trauma identified, in this case the pregnancy loss, for example asking whether the participant is reliving the loss or feeling it is actually happening again. A number of scoring criteria have been proposed; we used criteria involving endorsement of each symptom cluster (re-experiencing, avoidance and hyper-arousal clusters) as well as a total severity score cut-off of ≥ 18, as this has been found to maximize accuracy in the diagnosis of PTSD in victims of motor vehicle accidents and physical and sexual assault[15]. Consistent with our previous publication, we use the term 'post-traumatic stress' rather than 'post-traumatic stress disorder', to acknowledge that our criteria focus on screening for probable PTSD[10].

Statistical analysis

We compared women and their partners in terms of moderate/severe anxiety and depression and PTS after early pregnancy loss, using descriptive statistics. Furthermore, in partners, the prevalence of moderate/severe anxiety or depression and PTS was assessed separately in the miscarriage and ectopic-pregnancy subgroups.

We fitted mixed-effects logistic regression models for moderate/severe depression and anxiety and PTS. The models were simple, including a main effect of exact time since loss (continuous), a main effect of parent (woman *vs* partner) and an interaction effect between time and gender. Apart from these fixed effects, two random intercepts were included: a random intercept per couple and a random intercept per individual within a couple.

When fitting the model, all available observations were used. No further actions were taken with regard to missing values due to incomplete follow-up, since the estimation method used to fit the mixed-effects logistic regression model automatically handles incomplete follow-up under the missing-at-random assumption, conditional on the covariates in the model.

Statistical analysis was performed using R software version 3.4.3 (www.r-project.org) and SAS v 9.4 (SAS Institute Inc., Cary, NC, USA).

RESULTS

Recruitment and response rates

In total, 1201 women who experienced early pregnancy loss were approached for participation across three sites. In just over half of the women (386/737 (52%)) who consented to participate, their partners were present at the consultation. Of those partners who were approached, all were male and 192/386 (50%) were eligible and agreed to participate. This was lower than the participation rate in all eligible women (737/1098 (67%)) for the first aim of the PIEPE study[10]. Of 13 partners who volunteered a reason for non-participation, nine reported time constraints.

Partners were less likely to respond than their female counterparts at every timepoint. Response rates were 60%, 48% and 39% for partners and 78%, 70% and 59% for women at 1, 3 and 9 months, respectively (Figure 1). Overall 152/192 (79%) women responded at least once, compared with 125/192 (65%) partners. In total, there were 652 observations (at 1, 3 or 9 months) from 277 individuals in 170 couples. At every timepoint, the subgroup of women whose partners were recruited were more likely to respond than the subgroup of women whose partners were not recruited (147/189 (78%) *vs* 349/545 (64%) at 1 month).

There was no evidence of selective drop-out of women or their partners according to background clinical data or according to baseline psychological response (Tables S1 and S2).

Post-traumatic stress

At 1 month, 7/107 (7%) partners met the screening criteria for PTS, 7/83 (8%) at 3 months and 3/70 (4%) at 9 months, compared with 49/144 (34%), 33/129 (26%) and 23/108 (21%) women, respectively (Table 1, Figure 2).

The most commonly endorsed symptom cluster at all three timepoints for both women and their partners was re-experiencing (endorsed by 79% of partners and 95% of women at 1 month) (Table 2). Approximately one third of partners met the criteria for the avoidance and hyper-arousal clusters at 1 month; in women, the proportion was closer to two thirds. A high proportion of both women and their partners reported interruption of activity related to the symptoms they endorsed; at 1 month, 62% of partners and 78% of women reported at least one interruption (Table 2). 44% of partners and 53% of women reported at least one interruption at 9 months.

Based on the mixed-effects logistic regression model (Table S3), the odds ratio for PTS in partners compared with women at 1 month was 0.02 (95% CI, 0.004–0.12). The interaction between time and parent was weak,

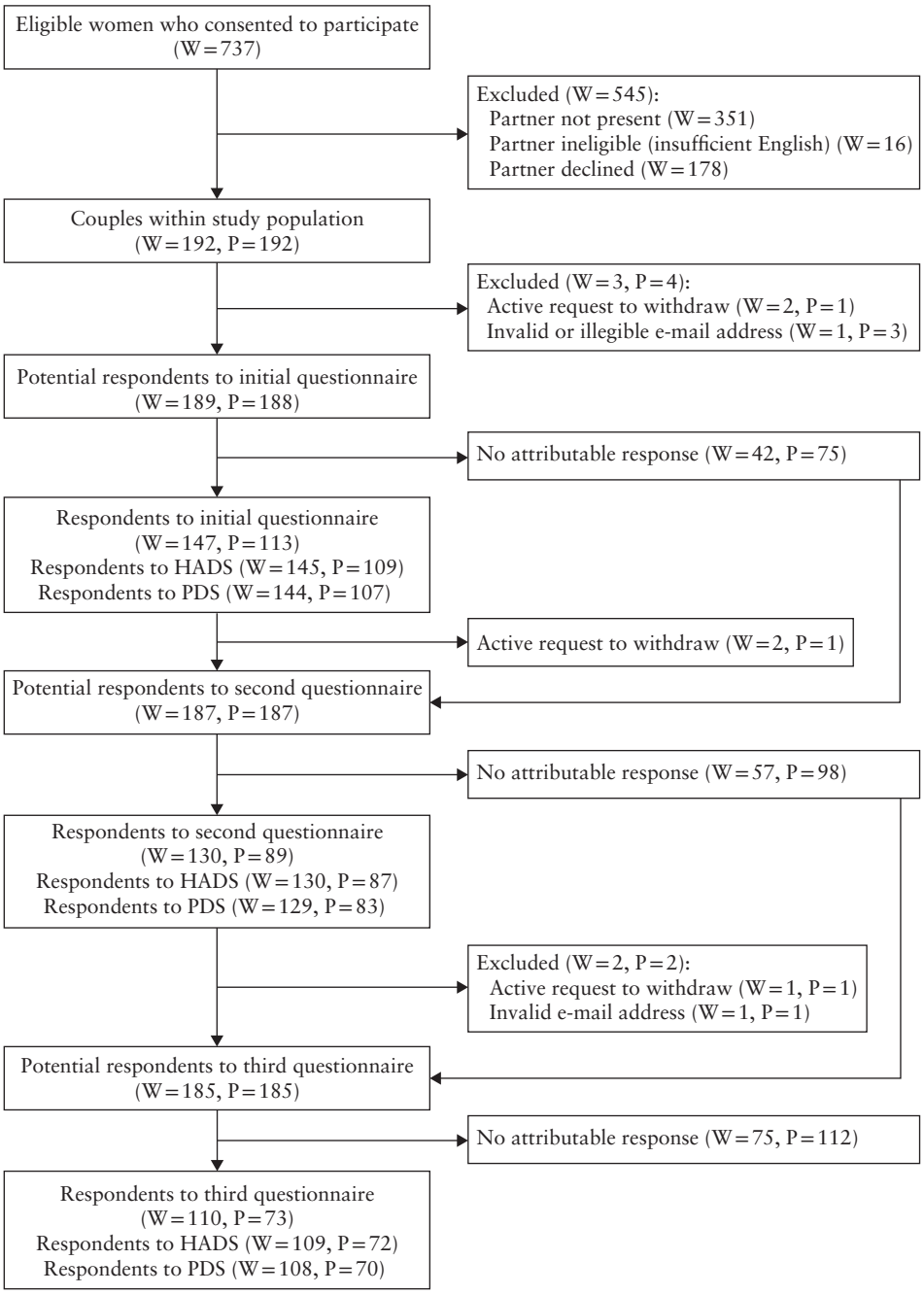

Figure 1 Flowchart summarizing recruitment and response rates of couples after early pregnancy loss. HADS, Hospital Anxiety and Depression Scale; P, Partners; PDS, Post-traumatic Stress Diagnostic Scale; W, women.

Table 1 Assessment of anxiety, depression and post-traumatic stress (PTS) in women and their partners at 1, 3 and 9 months after early pregnancy loss

	Partners			*Women*		
Variable	*Month 1*	*Month 3*	*Month 9*	*Month 1*	*Month 3*	*Month 9*
Hospital Anxiety and Depression Scale						
Respondents	109	87	72	145	130	109
Anxiety score	4.81 ± 3.62	4.85 ± 3.77	4.90 ± 3.97	7.43 ± 4.52	7.73 ± 4.20	6.75 ± 4.41
Moderate/severe anxiety	7 (6)	8 (9)	4 (6)	44 (30)	32 (25)	24 (22)
Depression score	2.29 ± 2.73	2.80 ± 3.55	2.65 ± 3.21	4.23 ± 4.33	4.35 ± 4.01	3.80 ± 3.82
Moderate/severe depression	2 (2)	4 (5)	1 (1)	15 (10)	11 (8)	8 (7)
Post-traumatic Stress Diagnostic Scale						
Respondents	107	83	70	144	129	108
Score	7.1 ± 7.1	6.7 ± 8.0	5.2 ± 6.0	14.1 ± 10.3	11.8 ± 9.4	10.4 ± 10.5
Ehring screening criteria for PTS	7 (7)	7 (8)	3 (4)	49 (34)	33 (26)	23 (21)

Data are given as *n*, mean ± SD or *n* (%).

although the sample size was too small for a definitive evaluation. The odds ratio for time (in months) was 0.81 (95% CI, 0.79–0.93) in women and 0.84 (95% CI, 0.64–1.10) in partners, suggesting a modest decrease in the proportion meeting the screening criteria for PTS over time, although the proportion was clearly lower for partners throughout. The proportion of women and partners meeting the criteria for PTS over time estimated by the model is shown in Figure 3.

In the group of partners following miscarriage, 6/80 (8%) met the criteria for PTS at 1 month, 5/58 (9%) at 3 months and 1/47 (2%) at 9 months (Table S4). In the group of partners following ectopic pregnancy, the corresponding proportions were 1/16 (6%), 1/16 (6%) and 1/13 (8%), respectively, but the numbers were small.

Anxiety and depression

In partners (irrespective of the type of pregnancy loss), 7/109 (6%) met the criteria for moderate/severe anxiety at 1 month, 8/87 (9%) at 3 months and 4/72 (6%) at 9 months (Table 1, Figure 2). In women, the

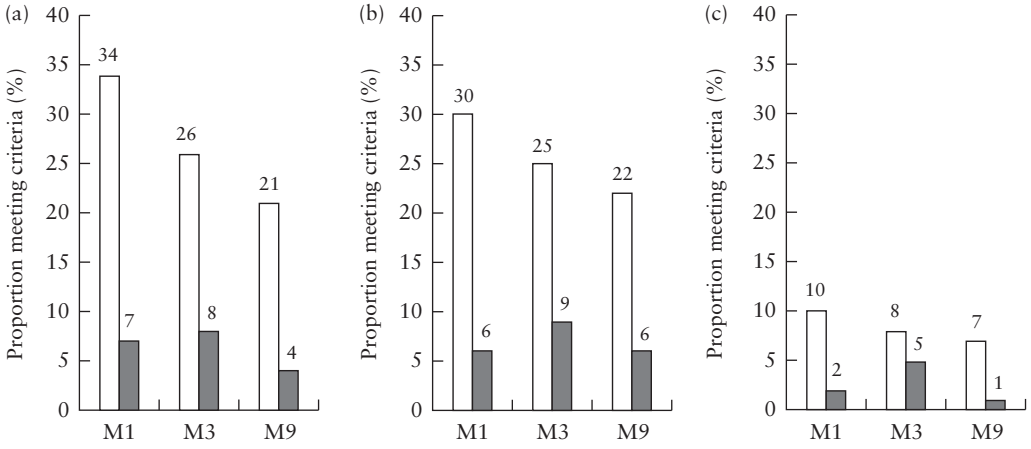

Figure 2 Bar charts demonstrating proportion of women (□) and their partners (■) meeting criteria for post-traumatic stress (a), moderate/severe anxiety (b) and moderate/severe depression (c) at 1-, 3- and 9-month assessments after early pregnancy loss. M1, 1-month questionnaire; M3, 3-month questionnaire; M9, 9-month questionnaire.

Table 2 Details of assessment of post-traumatic stress (PTS) criteria according to Post-traumatic Stress Diagnostic Scale (PDS) in women and their partners at 1, 3 and 9 months after early pregnancy loss

	Partners			*Women*		
Variable	*Month 1 (n = 107)*	*Month 3 (n = 83)*	*Month 9 (n = 70)*	*Month 1 (n = 144)*	*Month 3 (n = 129)*	*Month 9 (n = 108)*
Helpless	92 (86)	69 (83)	62 (89)	121 (84)	109 (84)	89 (82)
Terrified	34 (32)	28 (34)	30 (43)	82 (57)	70 (54)	63 (58)
Helpless or terrified	93 (87)	70 (84)	64 (91)	124 (86)	111 (86)	93 (86)
Symptom cluster*						
Re-experiencing	84 (79)	60 (72)	46 (66)	137 (95)	115 (89)	85 (79)
Avoidance	38 (36)	28 (34)	22 (31)	93 (65)	64 (50)	46 (43)
Hyper-arousal	42 (39)	31 (37)	21 (30)	89 (62)	74 (57)	60 (56)
All three clusters	24 (22)	17 (20)	13 (19)	76 (53)	51 (40)	40 (37)
Interruption of activities						
Work	32 (30)	18 (22)	14 (20)	74 (51)	54 (42)	38 (35)
Household chores	18 (17)	11 (13)	7 (10)	54 (38)	42 (33)	31 (29)
Relationships with family	20 (19)	16 (19)	13 (19)	45 (31)	44 (34)	29 (27)
Relationships with friends	22 (21)	14 (17)	15 (21)	50 (35)	56 (43)	33 (31)
Fun and leisure activities	27 (25)	16 (19)	12 (17)	68 (47)	51 (40)	33 (31)
Sex life	48 (45)	30 (36)	19 (27)	70 (49)	52 (40)	39 (36)
General satisfaction with life	36 (34)	33 (40)	21 (30)	79 (55)	74 (57)	46 (43)
Overall level of functioning	18 (17)	19 (23)	14 (20)	63 (44)	51 (40)	35 (32)
Any interruption of activities	66 (62)	47 (57)	31 (44)	112 (78)	88 (68)	57 (53)
≥ 2 activities interrupted or interruption of overall level of functioning	48 (45)	29 (35)	24 (34)	96 (67)	76 (59)	52 (48)
PDS score ≥ 18	8 (7)	10 (12)	3 (4)	51 (35)	34 (26)	25 (23)

Data are given as *n* (%). *Criteria for endorsement of symptom clusters were: one or more positive responses to five questions for re-experiencing; three or more positive responses to seven questions for avoidance; and two or more positive responses to five questions for hyper-arousal.

corresponding proportions were 44/145 (30%), 32/130 (25%) and 24/109 (22%), respectively. For moderate/severe depression, the proportions meeting the criteria were 2/109 (2%) at 1 month, 4/87 (5%) at 3 months and 1/72 (1%) at 9 months in partners, and 15/145 (10%), 11/130 (8%) and 8/109 (7%) in the women, respectively.

Based on the mixed-effects logistic regression model (Table S3), the odds ratio for moderate/severe anxiety in partners compared with women at 1 month was 0.05 (95% CI, 0.01–0.19), and for moderate/severe depression it was 0.15 (95% CI, 0.02–0.96). Again, the interactions between time and parent were modest, although uncertainty due to low sample size was considerable. In women, the odds ratio for time (in months) was 0.89 (95% CI, 0.79–0.99) for moderate/severe anxiety and 0.92 (95% CI, 0.79–1.08) for moderate/severe depression; for partners, the odds ratios were 0.98 (95% CI, 0.79–1.20) and 0.91 (95% CI, 0.65–1.27), respectively. These results suggest a modest decrease in morbidity over time. Figure 3 clearly shows lower proportions of partners than women meeting the criteria for moderate/severe anxiety or depression throughout follow-up.

Following miscarriage, 5/81 (6%) partners met the criteria for moderate/severe anxiety at 1 month, 5/62 (8%) at 3 months and 1/49 (2%) at 9 months, while 2/81 (2%), 3/62 (5%) and 0/49 (0%) met the criteria for moderate/severe depression, respectively (Table S4). Following ectopic pregnancy, moderate/severe anxiety was observed in 2/17 (12%) partners at 1 month, 2/16 (13%) at 3 months and 2/13 (15%) at 9 months. None of the partners (0/17, 0/16 and 0/13, respectively) met the criteria for moderate/severe depression after an ectopic pregnancy.

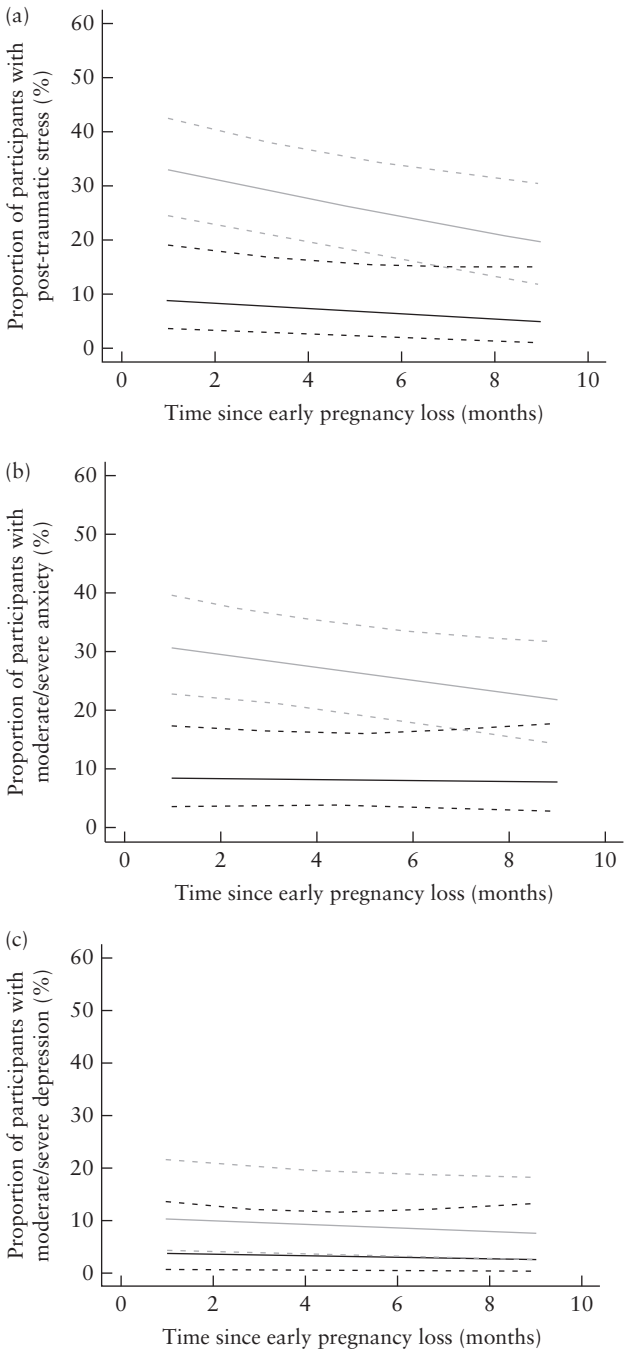

Figure 3 Average evolution over time of proportion of women (——) and their partners (——) meeting criteria for post-traumatic stress (a), moderate/severe anxiety (b) and moderate/severe depression (c) after early pregnancy loss, based on mixed-effects model. - - - -, 95% CI.

DISCUSSION

The findings of this study show that, at 1, 3 and 9 months following early pregnancy loss, women display a higher level of symptoms suggestive of PTS and of moderate or severe anxiety and depression than do their partners.

Normative population data from a study published in 2001 suggest that, in the background UK population of men, 8% meet the criteria for moderate or severe anxiety according to HADS and 2% meet those for moderate or severe depression[16]. These rates are not appreciably different from those in our sample of partners after early pregnancy loss. PTSD is a diagnosis specific to a particular stressor, thus background rates depend on exposure to trauma. Seven percent of partners in this study met the screening criteria for PTS relating to the loss at 1 month and 4% at 9 months. Although these are a much smaller proportions than those in women, in view of the high frequency of losses and the seriousness of this condition, this is an important finding. Men are generally less likely to seek support for mental health issues and may have poorer peer support. It is also important to recognize that, although symptoms usually fall short of the threshold to suggest PTS, there is still an appreciable impact, as indicated by endorsement of individual symptom clusters and the impact of the symptoms on their lives. It is also relevant to note that 86% of partners reported the loss as making them feel helpless after 1 month, which is a similar proportion to that in women.

A strength of this study is that it is large compared with previous studies in the literature on the psychological impact of pregnancy loss, and it incorporates a demographically and ethnically diverse sample from three areas of London. Women and their partners were recruited

consecutively; the results from the overall group of women were analyzed in our group's first publication[10], whereas this analysis focuses only on those women whose partners consented to participate. Details of the clinical encounter were collected prospectively from hospital records. This is the first study to assess for symptoms of PTS in partners, and it is also the first to include partners following an ectopic pregnancy, although the small numbers precluded subgroup analysis.

A limitation of this study is that only a minority of the women's partners were present at the appointment to be approached for participation and, of those approached, only 50% agreed. This may have introduced selection bias and increased uncertainty in the statistical analysis. Moreover, while the attrition rate was high in both groups, it was higher for partners, thus the potential for non-response bias must be considered. It is conceivable either that unaffected individuals are less likely to take part or that highly affected individuals may avoid reminders of the event; both may co-exist at the highest and lowest extremes of symptomatology. We found no clear evidence of selective drop-out based on psychological response in those who responded to the first part of the questionnaire.

It is not clear whether the partner's experience of early pregnancy loss always fulfils the strict criteria of a 'traumatic event' necessary for the diagnosis of PTSD, because to do so exposure to real or threatened death or serious injury must be witnessed directly. Learning of death or serious injury is not included if from 'natural causes'[17]. Medical incidents may qualify only if they involve 'sudden, catastrophic events'. Clearly, some pregnancy-loss situations will involve critical situations risking the life of the woman, as well as the perceived sudden death of an unborn child. In less acute situations, interpretation of whether they fulfill the criteria is subjective. This study did not take into account an objective classification of the individual participants' pregnancy loss in line with these criteria when reporting on their PTS symptoms.

We used screening questionnaires rather than the gold standard of individualized assessment by a professional because of the large size of the study. Validation of the results with comprehensive psychometric assessment would be beneficial. It was not feasible to use validated translations of the questionnaires, thus exclusion of those who did not speak English was necessary. While participants were asked to complete the PDS specifically in relation to the experience of the pregnancy loss, we are unable to exclude the presence of psychological morbidity prior to the diagnosis of such a loss.

Our findings relating to anxiety and depression are similar to those of previous studies, including one large study in the UK from 2007[6]. Our first publication, which analyzed all women recruited to the study, showed a similar proportion of women meeting the screening criteria of each of the three disorders compared to in the subgroup of women whose partners were recruited, presented here[10]. Kessler's national comorbidity survey published in 1995 showed that the risk of developing PTSD after a traumatic event was 8.1% for men and 20.4% for women[18]; this is consistent with the disparity we have seen in relation to pregnancy loss.

Although we planned to include partners in same-sex relationships, none was recruited during this study. There is an increase in same-sex couples seeking to achieve pregnancy with assisted reproduction, and the emotions are likely to be particularly hard to navigate in the context of already 'marginalized maternal roles', in which society questions their entitlement to motherhood[19]. Further research focused on same-sex couples is needed to address this.

A previous study reported a marriage dissolution hazard ratio of 1.22 (95% CI, 1.08–1.38) following miscarriage, mostly occurring 1.5 to 3 years later[20]. The stress on a relationship is likely to be more significant when reactions are incongruous or conflicting[2]. In this context, the substantial differences we have found in responses to pregnancy loss between women and their partners overall is concerning. The untreated burden of psychological distress following miscarriage may be a modifiable factor that may reduce the likelihood of marital breakdown in these circumstances. It will be important to address whether treatment of individuals or couples could reduce marital conflict. While awaiting such research, couples might consider accessing therapy together to talk about the event and how to support and communicate with each other.

Overall, these results point to a generally more pervasive and severe psychological impact of early pregnancy loss in women than in their partners. This may be due to differences in physical experiences and attachment or the emotional make-up of partners. However, although many partners do not reach the threshold for being classified as having PTS or moderate or severe anxiety or depression, many partners endorsed a number of symptom clusters in the PDS without passing the threshold for PTS. These individuals are likely to be suffering from a level of adjustment disorder that may well be distressing and may impact on their day-to-day life. Clinicians, and indeed society at large, should be encouraged to acknowledge this, such that the long-held taboos surrounding both pregnancy loss and mental health can be broken, and both women and their partners may find it easier to access the treatment that they need.

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SUPPORTING INFORMATION ON THE INTERNET

The following supporting information may be found in the online version of this article:

Table S1 Baseline characteristics of women with early pregnancy loss and their partners, according to response status

Table S2 Assessment of anxiety, depression and post-traumatic stress in women and their partners at 1 month after early pregnancy loss, according to when they last responded

Table S3 Coefficients of mixed-effects logistic regression models for moderate/severe depression and anxiety and post-traumatic stress in couples after early pregnancy loss

Table S4 Assessment of anxiety, depression and post-traumatic stress in partners at 1, 3 and 9 months after early pregnancy loss, according to whether loss was miscarriage or ectopic pregnancy