ScienceForecast A digital science library

Research Article
Published: 11 Oct, 2019

Journal of Family Medicine Forecast

Losing an Unborn Baby: Support after Miscarriage

*O'Kane E and Cassidy T**

School of Psychology, Ulster University, Cromore Road, Coleraine, Northern Ireland

Abstract

Objectives: The lack of professional healthcare support can exacerbate negative emotions, making it extremely difficult for women to cope following miscarriage. This study sought to further understand the experiences of women who miscarry in relation to the healthcare support they received.

Design: An online survey using questionnaire data collection in 232 women who had experienced a miscarriage between 5-30 months previously.

Methods: Measures looked at experience of miscarriage, perceptions of care received, impact of miscarriage, stress, wellbeing, and generalized affective disorder.

Results: Participants exhibited poorer care received and higher levels of impact of miscarriage than normative data. Impact of miscarriage and stress levels predicted lower wellbeing and more generalized affective disorder. Care received and experience of miscarriage predicted impact of miscarriage.

Conclusions: Health professionals need to recognized how care impacts on the experience of miscarriage and prove more compassionate and supportive care.

Keywords: Miscarriage; Care; Health professional; Wellbeing; Generalised affective disorder

Introduction

McLean and Flynn [1] suggest that the sheer frequency of miscarriage detracts attention from examining its emotional significance. Farren et al., [2] suggest that because early pregnancy loss affects 25% of women who have been pregnant by age 39, many healthcare professionals normalize it and overlook the often severe and prolonged psychological consequences. Hence women are not routinely provided with follow-up care [3] and are generally unprepared [4] and find it difficult to cope [5,6].

There is substantial evidence of prolonged anxiety and depression as a result of miscarriage [5,7-10]. Lok and Neugebauer [11] found that between 20% and 55% of women within their studies reported increased levels of depression. It is unclear how long psychological symptoms following miscarriage last, with several studies suggesting they can be present up to a year after the event [8,12,13]. Cordle and Prettyman [14], found that 68% of women were still distressed by their miscarriage two years after the event. Roswell, Jongman, Kilby, Kirchmeier, & Orford [15] reported 49% of clinically significant cases for anxiety, which remained evident for 27% of women seventeen weeks after the loss.

In their literature review Geller, Psaros and Kornfield [4] found that women who experienced miscarriage had a desire for information related to their experience and the lack of information provided was a major cause of distress. There is some evidence that distress can be reduced through information leaflets, 24-hour access to a medical provider *via* phone, or group therapy following miscarriage [16]. Murphy, Lipp, & Powles [17] in a Cochrane systematic review over a period of ten years, found from a total of nineteen studies on improving psychological well-being after miscarriage only six were of good quality, highlighting the need for more thorough investigations into the psychological repercussions of the miscarriage experience. Farren et al., [2] stress the importance of understanding the type and frequency of emotional reactions to miscarriage in order to provide the relevant and necessary support.

Other factors such as whether women have experienced prior miscarriages, whether they had any other children at the time of miscarriage or subsequent children after the miscarriage, as well as demographics such as age and marital status can also be said to affect women's psychological recovery [4,18]. Fertl et al., [18] found that compared to women without miscarriages, women with prior miscarriages had higher levels of pregnancy-related fear and anxiety during the first trimester.

OPEN ACCESS

Correspondence:
Tony Cassidy, School of Psychology, Ulster University, Cromore Road, Coleraine, Northern Ireland.
E-mail: *t.cassidy@ulster.ac.uk*

Received Date: *13 Sep 2019*
Accepted Date: *04 Oct 2019*
Published Date: *11 Oct 2019*

Citation: *O'Kane E, Cassidy T. Losing an Unborn Baby: Support after Miscarriage. J Fam Med Forecast. 2019; 2(3): 1024.*

ISSN 2643-7864

Research has shown links between stress and pregnancy loss [19]. It is vital therefore, that such stress is kept to a minimum following miscarriage to give women the optimum environment to not only conceive again should they wish, but also to recover psychologically from the experience as soon as possible.

Some research suggests that the difficulties experienced by women are intensified by attitudes towards miscarriage- particularly in the healthcare sector [20]. Women have reported feelings of vulnerability and abandonment by healthcare professionals [20,21]. Within the limited qualitative research, a significant proportion of studies refer to the influence of the healthcare system and its pivotal role in the psychological recovery of women following miscarriage. McLean and Flynn [1] revealed in their thematic analysis that women's experiences of their hospital treatment following miscarriage was extremely poor. Maker and Ogden [22], suggest this dissatisfaction to be a result of frustration with medical care for providing ambiguous explanations. Norton and Furber [23] in their interpretative phenomenological analysis into women's perceptions of the provision of care in early pregnancy assessment units, suggest several improvements are required in the provision of individualized care, including respect for women's opinions and appropriate clinical information for women who experience miscarriage. They found a lack of sensitivity and empathy, poor communication, and fragmented care to be the main factors in women's reports of dissatisfaction with the care they received.

Whilst Norton and Furber [23] suggest that appropriate follow up care following a miscarriage can have positive and long-lasting outcomes, very few women have consulted their healthcare provider [16]. Swanson [24] suggests that this hesitation stems from the failure of the healthcare system to recognise and validate women's experiences of miscarriage. The National Women's Healthy study [25] found that women expressed tensions towards the medical profession who failed to provide them with explanations of their loss, placing too much of a medical emphasis on their experience.

It seems therefore that there is a need for a more in-depth exploration of the miscarriage experience. In the existing literature, a recurring theme is the need to examine the pivotal role of the healthcare system in supporting women following miscarriage and the need to recognise the severity of the impact of miscarriage on women. The current study aims to explore the impact of dissatisfaction with healthcare in relation to women's experience of distress following miscarriage.

Method

Design

A survey using questionnaire data collection was provided on an online forum using Qualtrics.

Participants and procedure

A total of 232 participants took part in the quantitative study by completing the online questionnaires. Participants were aged between 31 and 39 years with the average being 34.8. 135 were married, 75 were living with a partner, 15 were separated/divorced and 7 were single. Time since most recent miscarriage ranged from 4-30 months, average 13.1 months. 126 had a previous miscarriage and for 106 this was their first experience. 130 had other children while 102 did not. Of the 130 who had children 45 had been born after their most recent miscarriage.

Participants were invited *via* social media to complete an online questionnaire related to healthcare satisfaction and their experience of miscarriage. The inclusion criteria involved participants being aged 18 years and older and having experienced one or more miscarriages that had not occurred in the last three months.

Measures

Demographic data was requested on age, marital status, length of time since most recent miscarriage, number of previous miscarriages and number of children. The following standard measures were then presented.

The Patient Health Questionnaire [26] to measure Generalised Affective Disorder (GAD) including depression, anxiety and somatic symptoms and consists of 9 items based on a 4-point Likert scale. A lower score indicates less GAD. Cronbach alpha for the scale was 0.89.

The Perceived Stress Scale-10 [27] to measure an individual's stress level and consists of 10 items based on a 5-point Likert scale ranging from 1 (Never) to 5 (Often). The questionnaire asks respondents to rate the frequency of the occurrence over the past month. A lower score indicates less stress. Cronbach alpha for the scale was 0.83.

The short form of The Warwick Edinburgh Mental Well-Being Scale [28], to measure an individual's mental well-being, and consists of 7 items based on a 5-point Likert scale ranging from 1 (None of the time) to 5 (All of the Time). A higher score is indicative of better well-being. Cronbach alpha for the scale was 0.89.

The Caring Professional Scale [29], to measure Healthcare Satisfaction and consists of 18 items based on a 5-point Likert scale, ranging from 1 (Yes, definitely) to 5 (No, not at all). A higher score is indicative of less satisfaction with care. The scale measures 2 factors based on the persons perception of the professional in terms of compassionate healer and / or competent practitioner. The former relates to the caring and supportive nature of the professional and the latter to whether they were perceived to be practically competent. The scale yields an overall caring score as well as separate factor scores. The overall scale a was 0.89, for the compassionate healer dimension ($\alpha = 0.95$), and for the competent practitioner ($\alpha = 0.87$).

The Revised Impact of Miscarriage Scale [24], to measure the impact of miscarriage and consists of 16 items based on a 4-point Likert scale, ranging from (1) definitely true for me to (4) definitely not true for me. The subscales in the RIMS are: 1) isolation/guilt (I/G; $\alpha = 0.87$), or how alone or guilty an individual feels after miscarriage, having a maximum score of 24; 2) losing a baby (LB; $\alpha = 0.90$), or how strongly the miscarriage is identified as the loss of a baby/person, having a maximum score of 20; and 3) devastating event (DE; $\alpha = 0.86$), or the degree of hopelessness the miscarriage engendered, having a maximum score of 20. A lower score is indicative of a stronger impact of miscarriage.

Results

The first analysis used a one-sample t-test to test level of care reported and the three dimensions of impact of miscarriage against normative data [30,31]. Descriptive statistics for this analysis are shown in Table 1.

On caring total, the current sample scored significantly lower ($t(231) = 18.58$, $p<0.001$) than the normative sample. In addition, the current sample also scored significantly lower on compassionate

Table 1: Descriptive statistics on caring and impact of miscarriage.

	Current Data	Normative Data
Caring total	48.15 (20.29)	69.33 (8.08)*
Compassionate healer	26.89 (10.06)	36.44 (5.20)*
Competent practitioner	21.26 (7.79)	32.86 (3.38)*
Isolation	18.18 (3.94)	13.30 (4.00)*
Loss	17.96 (2.97)	11.40 (3.40)*
Devastation	18.59 (2.19)	13.60 (3.70)*

*Hooshmand (2010)
^ Jansson *et al.* 2017

healer (t (231) =14.45, p<0.001), and on competent practitioner (t (231) =22.69, p<0.001). In essence the current sample experienced significantly lower levels of care and perceived their care as less compassionate and less competent.

In terms of the impact of miscarriage the current sample fared significantly worse than the normative sample of all three dimensions, isolation (t (231) =18.84, p<0.001), loss (t (231) =33.68, p<0.001), and devastation (t (231) =34.65, p<0.001).

The next analysis involved correlating the variables using Pearson Bivariate correlations as shown in Table 2

Time since miscarriage is negatively correlated with care showing that the more time that has elapsed since miscarriage, the less satisfaction with care. Isolation, loss, devastation, GAD and stress were also negatively correlated with care, showing that the more isolation, loss, devastation, general anxiety and depression and stress experienced from miscarriage, the less satisfaction with care. Positive correlations were found between weeks pregnant and well-being, showing that the further the gestation of pregnancy during miscarriage, the higher the satisfaction with care; and also the higher the well-being, the higher the satisfaction with care.

The next analysis used Hierarchical Multiple Regression (HMRA) with wellbeing as the dependent variable as shown in Table 3.

In this analysis, background variables of time since miscarriage, number of weeks pregnant at miscarriage, having had previous miscarriage, having other children, and if other children arrived since the miscarriage, were entered on the first step and accounted for 5% of the variance in wellbeing. The single significant predictor at this stage was the number of weeks pregnant at the time of miscarriage (β=0.16, p=0.019). Caring received was entered on step 2 and this added a further 8% to the variance explained and was a significant predictor of wellbeing (β=0.324, p<0.001). On the next step, impact of miscarriage

Table 3: Hierarchical multiple regression onto wellbeing as the dependent variable.

	B	SE B	β	p-value
Step 1	R^2=0.05, p<0.05			
Time since miscarriage	0.015	0.013	0.080	0.249
Weeks pregnant at miscarriage	0.179	0.076	0.160	0.019
Miscarriage/s before	0.183	0.609	0.020	0.765
Other children	0.293	0.463	0.061	0.528
Other children since	0.284	0.602	0.048	0.638
Step 2	R^2 Δ=0.08, p<0.01			
Time since miscarriage	0.029	0.013	0.150	0.028
Weeks pregnant at miscarriage	0.044	0.078	0.039	0.574
Miscarriage/s before	0.628	0.591	0.070	0.289
Other children	0.054	0.446	0.011	0.903
Other children since	0.713	0.584	0.120	0.223
Caring Total	0.084	0.018	0.324	0.001
Step 3	R^2 Δ=0.15, p<0.001			
Time since miscarriage	0.012	0.013	0.063	0.346
Weeks pregnant at miscarriage	0.139	0.076	0.124	0.068
Miscarriage/s before	0.858	0.560	0.095	0.127
Other children	0.039	0.421	0.008	0.926
Other children since	0.384	0.555	0.065	0.489
Caring Total	0.040	0.019	0.156	0.034
Impact	-0.203	0.038	-0.359	0.001
Step 4	R^2 Δ=0.16, p<0.001			
Time since miscarriage	0.005	0.011	0.028	0.643
Weeks pregnant at miscarriage	0.136	0.068	0.122	0.045
Miscarriage/s before	1.130	0.500	0.125	0.025
Other children	0.193	0.376	0.040	0.607
Other children since	-0.114	0.499	-0.019	0.819
Caring Total	0.026	0.017	0.101	0.123
Impact	-0.150	0.035	-0.266	0.001
Stress	-0.564	0.074	-0.434	0.001

Total R^2=0.39, p<0.001

Table 2: Pearson bivariate correlations between variables.

	1	2	3	4	5	6	7	8	9	10
Time since miscarriage:	1									
Weeks pregnant	0.09									
GAD	-0.19**	0.13								
Stress	-0.17**	-0.10	0.48**							
Wellbeing	0.12	0.18**	-0.65**	-0.53**						
Isolation	-0.22**	-0.19**	0.45**	0.29**	-0.47**					
Loss	-0.14*	0.18**	0.36**	0.23**	-0.31**	0.57**				
Devastation	-0.15*	0.14*	0.35**	0.31**	-0.27**	0.65**	0.73**			
Compassionate Healer	0.22**	-0.37**	-0.09	-0.14*	0.26**	-0.35**	-0.16*	-0.18**		
Competent Practitioner	0.13	-0.27**	0.19**	0.25**	0.33**	-0.44**	-0.26**	-0.35**	0.89**	
Caring Total	-0.18**	0.33**	-14*	-0.19**	0.29**	-0.40**	-0.21**	-0.26**	0.98**	0.96**

*p<0.05 **p<0.01

Table 4: Hierarchical multiple regression onto generalised affective disorder as the dependent variable.

	B	SE B	β	p-value
Step 1	R^2=0.07, p<0.01			
Time since miscarriage	-0.058	0.020	-0.199	0.005
Weeks pregnant at miscarriage	0.259	0.115	0.153	0.025
Miscarriage/s before	-0.543	0.907	-0.040	0.551
Other children	-0.824	1.832	-0.061	0.653
Other children since	-0.201	1.272	-0.023	0.874
Step 2	R^2 Δ=0.07, p<0.001			
Time since miscarriage	-0.075	0.020	-0.260	0.000
Weeks pregnant at miscarriage	0.432	0.118	0.255	0.000
Miscarriage/s before	-1.095	0.886	-0.081	0.218
Other children	-0.764	1.768	-0.056	0.666
Other children since	-0.482	1.230	-0.054	0.695
Caring Total	-0.112	0.027	-0.287	0.000
Step 3	R^2 Δ=0.12, p<0.001			
Time since miscarriage	-0.048	0.019	-0.166	0.013
Weeks pregnant at miscarriage	0.261	0.113	0.154	0.022
Miscarriage/s before	-1.469	0.826	-0.108	0.077
Other children	-1.352	1.648	-0.100	0.413
Other children since	0.470	1.155	0.053	0.684
Caring Total	-0.038	0.028	-0.096	0.177
Impact	0.343	0.057	0.403	0.000
Step 4	R^2 Δ=0.14, p<0.001			
Time since miscarriage	-0.040	0.017	-0.139	0.022
Weeks pregnant at miscarriage	0.253	0.103	0.149	0.014
Miscarriage/s before	-1.817	0.749	-0.134	0.016
Other children	-2.332	1.498	-0.172	0.121
Other children since	1.597	1.057	0.179	0.132
Caring Total	-0.017	0.025	-0.043	0.504
Impact	0.270	0.053	0.317	0.000
Stress	0.791	0.111	0.405	0.000

Total R^2 =0.37, p<0.001

was entered and accounted for a further 15% of the variance and was a significant predictor (β=-0.359, p<0.001). The addition of impact reduced the beta value for caring (β=0.156, p=0.034) suggesting that it has a moderating effect such that the greater negative impact of miscarriage reduces the positive effect of care received. On the final step stress was added and this accounted for an additional 16% of the variance and was a significant predictor (β=-0.434, p<0.001). Stress reduced the beta value for impact (β=-266, p<0.001) and further reduced the effect of care to non-significance (β=0.101, p=0.123). This suggests that combined with the negative impact of miscarriage the high level of general stress experienced eradicates the positive impact of caring. Overall the model explains 39% of the variance in wellbeing.

HMRA was repeated with Generalised Affective Disorder as the dependent variable as shown in Table 4.

In this analysis, background variables of time since miscarriage, number of weeks pregnant at miscarriage, having had previous miscarriage, having other children, and if other children arrived since the miscarriage, were entered on the first step and accounted for 7% of the variance in Generalised Affective Disorder (GAD). At this stage there was one significant predictor, time since miscarriage (β=-0.199, p=0.005). Caring was entered on step 2 and this added a further 7% to the variance explained and was a significant predictor of GAD (β=-0.287, p<0.000). Caring reduced the beta value for time since miscarriage (β=-260, p<0.000) and further increased the effect of weeks pregnant at miscarriage to significance (β=0.255, p=0.000). On the next step, impact of miscarriage was entered and accounted for a further 12% of the variance and was a significant predictor (β=0.403, p<0.000). The addition of impact reduced the beta value for time since miscarriage (β=-0.166, p=0.013) and weeks pregnant (β=0.154, p=0.022) to non-significance. On the final step, stress was added, and this accounted for an additional 14% of the variance and was a significant predictor (β=0.405, p=0.000). The addition of stress reduced the beta value of impact (β=0.317, p=0.000). This suggests that combined with the negative impact of miscarriage, the high level of general stress experienced eradicates the positive impact of caring. Overall the model explains 37% of the variance in General Affective Disorder.

Table 5: Hierarchical multiple regression onto impact of miscarriage as the dependent variable.

	B	SE B	β	p-value
Step 1	R^2=0.08, p<0.05			
Time since miscarriage	-0.048	0.023	-0.142	0.039
Weeks pregnant at miscarriage	0.123	0.133	0.062	0.356
Miscarriage/s before	2.271	1.064	0.143	0.034
Other children	-0.686	0.808	-0.081	0.397
Other children since	-0.518	1.052	-0.049	0.623
Step 2	R^2 Δ=0.17, p<0.001			
Time since miscarriage	-0.083	0.021	-0.243	0.001
Weeks pregnant at miscarriage	0.469	0.129	0.237	0.001
Miscarriage/s before	1.131	0.971	0.071	0.245
Other children	-0.076	0.733	-0.009	0.918
Other children since	-1.616	0.960	-0.154	0.094
Caring Total	-0.215	0.030	-0.469	0.001
Step 3	R^2 Δ=0.03, p<0.001			
Time since miscarriage	-0.074	0.021	-0.219	0.001
Weeks pregnant at miscarriage	0.453	0.127	0.228	0.001
Miscarriage/s before	0.886	0.958	0.056	0.356
Other children	-0.187	0.721	-0.022	0.796
Other children since	-1.185	0.954	-0.113	0.216
Caring Total	-0.196	0.030	-0.428	0.001
Stress	0.417	0.139	0.181	0.003

Total R^2 =0.26, p<0.001

HMRA was repeated with Impact of Miscarriage as the dependent variable as shown in Table 5.

In this analysis, background variables of time since miscarriage, number of weeks pregnant at miscarriage, having had previous miscarriage, having other children, and if other children arrived since the miscarriage, were entered on the first step and accounted for 8% of the variance in Impact of Miscarriage. Two significant predictors at this stage were time since miscarriage (β=-0.142, p=0.039) and miscarriage/s before (β=0.143, p=0.034). Caring was entered on step 2 and this added a further 17% to the variance explained and

Table 6: Hierarchical multiple regression onto caring as the dependent variable.

	B	SE B	β	p-value
Step 1	R^2=0.19, p<0.05			
Time since miscarriage	-0.160	0.047	-0.215	0.001
Weeks pregnant at miscarriage	1.614	0.271	0.372	0.001
Miscarriage/s before	-5.313	2.170	-0.152	0.015
Other children	2.843	1.648	0.153	0.086
Other children since	-5.119	2.146	-0.223	0.018
Step 2	R^2 Δ=0.04, p<0.001			
Time since miscarriage	-0.172	0.047	-0.232	0.001
Weeks pregnant at miscarriage	1.581	0.265	0.365	0.001
Miscarriage/s before	-4.497	2.141	-0.129	0.037
Other children	2.979	1.616	0.160	0.066
Other children since	-5.911	2.117	-0.258	0.006
Stress	-0.985	0.306	-0.196	0.001

Total R^2 =0.23, p<0.001

was a significant predictor of Impact of Miscarriage (β=-0.469, p<0.001). Caring decreased the beta value for time since miscarriage (β=-243, p<0.001) and the beta value of miscarriage/s before to non-significance (β=0.071, p=0.245). The addition of caring increased the beta value of weeks pregnant to significance (β=0.237, p=0.001). On the final step, stress was entered and accounted for a further 3% of the variance but was not a significant predictor (β=0.181, p<0.003). This suggests that combined with the time elapse since miscarriage and the number of weeks pregnant at miscarriage, eradicates the positive impact of caring. Overall the model explains 26% of the variance in Impact of Miscarriage.

HMRA was repeated with Caring Total as the dependent variable as shown in Table 6.

In this analysis, background variables of time since miscarriage, number of weeks pregnant at miscarriage, having had previous miscarriage, having other children, and if other children arrived since the miscarriage, were entered on the first step and accounted for 19% of the variance in caring. All predictors other than other children (β=0.153, p=0.086) were significant at this stage. Stress was entered on step 2 and this added a further 4% to the variance explained and was a significant predictor of caring (β=-0.196, p<0.001). The addition of stress reduced the beta value for all significant predictor variables suggesting that the higher the level of general stress experienced the less positive the impact of caring. Overall the model explains 23% of the variance in caring.

Discussion

On the measures used in this study the sample herein scored significantly lower than normative data on their perception of care received and on the dimensions of compassionate healer and competent practitioner. In essence the current sample perceived the care received as poorer than average and the health care professionals they encountered as less compassionate and less competent.

However it was the impact of miscarriage directly as well as previous experience of miscarriage and general stress levels that had a significant relationship with their wellbeing. Similarly for their generalized affective disorder. Care experienced had a strong relationship with how negatively they experienced the impact of miscarriage and it is through this that caring impacted on both wellbeing and generalized affective disorder. In other words it would seem that the impact of care experienced on both wellbeing and GAD is moderated by the impact of miscarriage.

In terms for the factors that relate to experience of caring it would appear that having a previous miscarriage and having another child since the miscarriage leads to a more positive view of care received, while the recency of the miscarriage as well as more weeks pregnant at time of miscarriage are associated with a more negative view of care experienced.

Similarly to Swanson [24] who found that during the first year after miscarriage, caring was effective in reducing overall emotional disturbance and depression; the present study found that a good care experience mediates the effect of miscarriage on GAD, i.e. satisfaction with care following miscarriage may reduce the consequential and prolonged symptoms of depression and anxiety. Number of weeks pregnant at the time of miscarriage, having had previous miscarriages, perceived stress, and the impact of miscarriage were also found to be direct predictors of GAD. Whilst care experienced did not have a direct effect on GAD it had a strong indirect effect through impact. Therefore, satisfaction with care reduces the impact of miscarriage resulting in overall, less depression and anxiety. Despite these findings, evidence continues to highlight a dissatisfaction with the level of professional care provided by the healthcare service in relation to women who experience miscarriage.

Conclusion

This study aimed to gain a more wholesome understanding of the healthcare experience following miscarriage. The results provide strong evidence that satisfaction with care does indeed affect the impact of miscarriage on the woman, which indirectly affects the likelihood of prolonged depression and anxiety. This study significantly highlights the need for healthcare professionals to be aware of their pivotal role in influencing the negative impact of miscarriage on women.

Crucially, it must be recognised that it is not difficult to incorporate many of these recommendations into the health service and indeed other researchers [32] have highlighted the ease of application from which the results of such miscarriage studies as this could be transferred into bringing about change. Future studies should take on board the abundance of evidence which suggests that women who miscarry are very much in need of a more compassionate and professional healthcare service to help them understand and move positively forward from a miscarriage experience. Future studies should seek to provide such a service, and through follow-up reviews, discover if in fact there is a difference evidenced in women who receive a more sensitive and compassionate healthcare experience which includes more information and more support.

References

1. McClean A, Flynn CA. It's not just a pap-smear: Women speak of their experiences of hospital treatment after miscarriage. Qualitative Social Work. 2013; 12: 782-798.

2. Farren J, Jalmbrant M, Ameye L, Joash K, Jones NM, Tapp S, et al. Post-traumatic stress, anxiety and depression following miscarriage or ectopic pregnancy: a prospective cohort study. BMJ Open. 2016; 6: 1-9.

3. Lee C, Slade P, Lygo V. The influence of psychological debriefing on emotional adaptation in women following early miscarriage: A preliminary study. Br J Med Psychol. 1996; 69: 47-58.

4. Geller PA, Psaros C, Kornfield SL. Satisfaction with pregnancy loss aftercare: are women getting what they want?. Arch Womens Ment Health. 2010; 13: 111-124.

5. Beutel M, Deckardt R, von Rad M, Weiner H. Grief and depression after miscarriage: their separation, antecedents, and course. Psychosom Med. 1995; 57: 517-526.

6. Nikcevic AV, Kuczmierczyk AR, Nicolaides KH. Personal coping resources, responsibility, anxiety and depression after early pregnancy loss. J Psychosom Obstet Gynecol. 1998; 19: 145-154.

7. Bergner A, Bever R, Klapp BF, Rauchfuss M. Mourning, coping and subjective attribution after early miscarriage. Psychother Psychosom Med Psychol. 2009; 59: 57-67.

8. Cumming GP, Klein S, Bolsover D, Lee AJ, Alexander DA, Maclean M, et al. The emotional burden of miscarriage for women and their partners: trajectories of anxiety and depression over 13 months. BJOG. 2007; 114: 1138-1145.

9. Hamilton SM. Should follow-up be provided after miscarriage?. Br J Obstet Gynaecol. 1989; 96: 743-745.

10. Thapar AK, Thapar A. Psychological sequelae of miscarriage: a controlled study using the general health questionnaire and hospital anxiety and depression scale. Br J Gen Pract. 1992; 42: 94-96.

11. Lok IH, Neugebauer R. Psychological morbidity following miscarriage. Best Pract Res Clin Obstet Gynaecol. 2007; 21: 229-247.

12. Lok IH, Yip AS, Lee DT. A 1-year longitudinal study of psychological morbidity after miscarriage. Fertil Steril. 2010; 93: 1966-1975.

13. Swanson KM, Chen HT, Graham JC, Wojnar DM, Petras A. Resolution of depression and grief during the first year after miscarriage: a randomized controlled clinical trial of couples-focused interventions. J Womens Health. 2009; 18: 1245-1257.

14. Cordle CJ, Prettyman RJ. A two-year follow-up of women who haveexperienced early miscarriage. Journal of Reproductive Infant Psychology. 1994; 12: 37- 43.

15. Roswell E, Jongman G, Kilby M, Kirchmeier R, Orford J. The psychological impact of recurrent miscarriage and the role of counselling at a pre pregnancy counselling clinic. Journal of Reproductive Infant Psychology. 2001; 19: 33-45.

16. Sejourne N, Callaghan S, Chabrol H. Support following miscarriage: what women want. Journal of Reproductive and Infant Psychology. 2010; 28: 403-411.

17. Murphy FA, Lipp A, Powles D. Follow-up for improving psychological well-being for women after a miscarriage. Cochrane Database Syst Rev. 2014; 3.

18. Fertl KL, Bergner A, Beyer R, Klapp BF, Rauchfuss M. Levels and effects of different forms of anxiety during pregnancy after a prior miscarriage. Eur J Obstet Gynecol Reprod Biol. 2009; 142: 23-29.

19. Olga BA van den Akker. The Psychological and Social Consequences of Miscarriage. Expert Review of Obstetrics & Gynecology. 2011; 6: 295-304.

20. Adolfsson A, Larsson PG, Wilma B, Bertero C. Guilt and emptiness: women's experiences of miscarriage. Health Care Women Int. 2004; 25: 543-560.

21. Meaney S, Corcoran P, Spillane N, O'Donoghue K. Experience of miscarriage: an interpretative phenomenological analysis. BMJ Open. 2016; 7.

22. Maker C, Ogden J. The miscarriage experience: more than just a trigger to psychological morbidity?. Psychology and Health. 2003; 18: 403-415.

23. Norton W, Furber L. An exploration of how women in the UK perceive the provision of care received in an early pregnancy assessment unit: an interpretive phenomenological analysis. BMJ Open. 2018; 8: 1-10.

24. Swanson KM. Effects of Caring, Measurement, and Time on Miscarriage Impact and Women's Well-Being. Nurs Res. 1999; 48: 288-298.

25. Simmons RK, Singh G, Maconochie N, Doyle P, Green J. Experience of miscarriage in the UK: qualitative findings from the National Women's Health Study. Soc Sci Med. 2006; 63l: 1934-1946.

26. Spitzer RL, Kroenke K, Williams JB. Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. Primary Care Evaluation of Mental Disorders. Patient Health Questionnaire. JAMA. 1999; 282; 1737-1744.

27. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. J Health Soc Behav. 1983; 24: 386-396.

28. Tennant R, Hiller L, Fishwick R, Platt S, Joseph S, Weich S, et al. The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): Development and UK validation. Health Qual Life Outcomes. 2007; 5: 63.

29. Swanson KM. Predicting Depressive Symptoms after Miscarriage: A Path Analysis Based on the Lazarus Paradigm. J Womens Health Gend Based Med. 2000; 9: 191-206.

30. Hooshmand M, Foronda C. Comparison of Telemedicine to Traditional Face-to-Face Care Children with Special Healthcare Needs: A Quasiexperimental Study. Telemedicine and e-Health. 2018; 24.

31. Jansson C, Volgsten H, Huffman C, Svanberg AS, Swanson KM, Stavreus-Evers A. Validation of the Revised Impact of Miscarriage Scale for Swedish conditions and comparison between Swedish and American couples' experiences after miscarriage. Eur J Contracept Reprod Health Care. 2017; 22: 412-417.

32. Huffman CS, Schwartz TA, Swanson KM. Couples and Miscarriage: The Influence of Gender and Reproductive Factors on the Impact of Miscarriage. Womens Health Issues. 2015; 25: 570-578.