

Occurrence and Determinants of Psychological Distress among Women Undergoing Abortion/Medical Termination of Pregnancy

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ABSTRACT

Background: Early pregnancy loss, either spontaneous or induced, causes physical morbidity that is usually short-lived. However, the psychological impact of abortion has not been studied adequately.

Objectives: To assess the Goldberg Health Questionnaire-12 among women undergoing treatment for abortion-related issues. To describe the relationship between demographic, social, obstetric and medical factors on postabortion stress levels.

Materials and methods: After IEC clearance, a cross-sectional questionnaire-based study was conducted on patients seeking abortion-related care. Those with prior psychiatric illnesses and those undergoing MTP for failure of contraception were excluded.

The GHQ-12 was administered. Demographic, obstetric and medical factors were noted. Statistical analysis was performed to identify the association between GHQ scores and the variables.

Results: About 106 participants with average age of 25.7 years, 86% Hindus, and 83% employed were studied. About 63.2% were multigravidae, 67.9% were in the first trimester, and 63.2% were spontaneous abortions. About 42.4% were medically managed. About 89% (94 patients) were found to have typical distress and 11% (12 patients) were found to have more-than-usual distress, suggesting a high prevalence of psychological distress. The presence of prior living issue (80% vs 35%, p -value = 0.013), presence of prior abortion (66% vs 21%, p -value = 0.002), presence of medical comorbidity (41.6% vs 15%, p -value = 0.038), and desire for future progeny (83% vs 13%, p -value < 0.0001) were associated with higher stress.

Conclusion: Women undergoing abortion/MTP have psychological stress. Some patient factors like prior living issue, prior abortion, medical comorbidity, and desire for future progeny appear to influence higher stress levels.

Keywords: Abortion, Holistic care, Psychological distress, Postabortal care.

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INTRODUCTION

With a lot of hard work by obstetricians and all medical practitioners, maternal mortality rates have dropped significantly, and India is well on its way to achieve the Sustainable Development Goal of 70 maternal deaths per 1 lakh live births.¹ Simultaneously, the recognition of noncommunicable diseases in India is increasing, of which mental health issues are a major part.²

Hence, it is important for research in obstetrics to overlap from mortality-related issues to morbidity-related issues. A miscarriage, synonymously termed abortion, is a common event in the life of a woman and can be a stressful life event. An estimated 15.6 million abortions took place in India in the year 2015, with an abortion rate of around 47 per 1,000 women.³ No estimate can be accurate on this specific number due to the high prevalence of over-the-counter MTP pills and their attendant complications.^{4,5}

Though the association between abortion and mental health disorders is not entirely new, the importance attached to this entity is not high.⁶ In a broad scoping review analyzing many matters relating to miscarriage, Quenby et al. estimate that there may be 44 pregnancy losses every minute and have highlighted the significant burden of the psychological consequences of early pregnancy loss.⁷ The prevalence of a positive-depression screen among women who have undergone an abortion recently is around 30%. The

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Ethical committee approval has been obtained and a copy of the same has been uploaded.

importance of screening for the same has been emphasized by Mutiso et al. (Africa). The Edinburgh Postpartum Depression Scale had been used for it.⁸

Farren et al. (USA) have followed post-miscarriage patients and objectively measured the psychological stress levels using the Posttraumatic Stress Diagnostic Scale and the Hospital Anxiety and Depression Scale at 1, 3, and 9 months post-abortion. A high level of postabortal stress was noted.⁹ In a study on 389 post-abortion women in Europe, Kukulskienė and Žemaitienė estimated that 59.1% were found to be at increased risk of postnatal depression, using the EPDS scale.¹⁰ Similar trends have been noted in the Middle East region also.¹¹

The Lancet carried an editorial titled "Miscarriage: Worldwide reform of care is needed", suggesting that mental health after an abortion is grossly neglected.¹² In the Indian scenario, Sharma et al. have analyzed the psychological aspects among patients undergoing medical termination of pregnancy only. Using the Beck Depression Inventory, they found a rate of depression of around 6.1% prior to the performance of MTP, which increased to 10.7% after the performance of MTP. Primipara, second-trimester abortion, MTP on humanitarian grounds (e.g., rape), MTP due to fetal congenital anomalies, and maternal illness were found to be risk factors for the same. They have opined that many mild mood disorders may go unnoticed.¹³

Kotta et al.¹⁴ have also studied psychosocial problems following abortion. They have used the Goldberg Health Questionnaire-12 for assessing the psychological status of the woman who has undergone abortion. However, they have focussed more on the occurrence of posttraumatic stress disorder after an abortion.⁶ We have utilized the same GHQ-12, since the focus is not on diagnosis of psychiatric abnormality but on the impact on day-to-day functioning.

A recent article by Pershad J et al.¹⁵ has analyzed the determinants of self-reported anxiety and stress among women with abortion-related complications who were admitted to healthcare facilities in Southern and Eastern Africa.

In this study, lower socioeconomic status, lower levels of education, no previous childbirth, no previous abortion, and higher gestational age at abortion were associated with stress and anxiety. However, no specific objective method was utilized in their estimation of stress and anxiety. A simple question of "Did you encounter any anxiety or stress during your hospital stay?" was utilized.¹⁶

To summarize, the psychological aspects of abortion and its relationships with obstetric factors need more emphasis which the current study aims to address. This study was conducted with objectives to assess the scores of the Goldberg Health questionnaire-12 among women undergoing treatment for abortion-related issues and to describe the relationship between various demographic, social, obstetric, and medical factors on postabortion stress levels.

MATERIALS AND METHODS

A cross-sectional questionnaire-based study was conducted in the Department of Obstetrics and Gynaecology after Institutional Ethics Committee permission (VIEC/2019/APP/02). All reported research was conducted in accordance with the principles set forth in the Helsinki Declaration (2008). Patients seeking abortion-related care (spontaneous abortion due to any reason, or MTP for fetal or maternal problems) were recruited. Women with current

or past diagnosis of psychiatric illness/those requesting MTP for "failure of contraception" were excluded. Sample size calculation: sample size was estimated using the Standard EpInfo Software. Population size = 130 (the average number of abortions that are expected to be managed in this hospital in a two-month duration. Confidence level = 95%, margin of error = 5%, and sample size of 106) A consecutive method of sampling was used till the sample size of 106 was reached.

The study procedure was explained by the investigators and informed consent was obtained. Demographic details such as age, duration of marriage, urban/rural residence, religion, type of family, and employment status were noted. Obstetric history was noted in detail. Details regarding this current abortion will be noted. Period of amenorrhea, time of diagnosis of the pregnancy, whether it is a spontaneous abortion/induced abortion, indication of abortion, gestational age at which abortion was performed, attempts at self-medication using over-the-counter abortion pills, and number of visits before coming to this hospital were noted. The presence or absence of medical disorders was noted. The GHQ-12 was administered, and scores were noted.

Description of the GHQ-12

The GHQ-12 is a well-established test of psychological well-being. There are 12 items (6 positive elements and 6 negative elements). The positive elements are scored with respect to the ability to feel or do something positive (e.g., - able to concentrate) - Better than usual/Same as usual/Less than usual/Much less than usual and negative elements are scored. The negative elements are scored on the inability to feel or do something (e.g., lost much sleep over worry) - Not at all/No more than usual/Rather more than usual/Much more than usual. Like this, the 12 items are scored and a final score is arrived at. The score obtained is grouped into five classes, determining the distress of the patient.

After tabulation of the GHQ-12 scores, patients were divided into those with high GHQ-12 scores and low GHQ-12 scores. Comparison was performed between these two groups after cross-tabulations and analysis using Pearson's Chi-square test. Quantitative variables were analyzed using Kolmogorov-Smirnov normality tests. Normally distributed data were analyzed using parametric *t*-test. Non-normally distributed variables were analyzed using Mann-Whitney *U* test. *p*-value < 0.05 was taken as statistically significant.

RESULTS

Participants studied were 106 in number.

Description of the Population

With respect to demographics, the average age of the population was 25.76 ± 5.42 years (detailed age distribution shown in Figure 1), 13 (13.84%) were non-Hindu by religion, and 16 (17.02%) were unemployed. About 58/106 (54.71%) were from an urban location and 34 (32.07%) had an educational status of graduation or above. With respect to obstetric history, 39 (36.79%) were primigravidae and 67 (63.27%) had at least one living issue. Regarding gestational age of the current pregnancy that ended up as miscarriage or MTP, 72 (67.92%) were in the first trimester and the remaining were in the second trimester.

About 67 (63.2%) had a spontaneous abortion (the remaining were MTPs). About 45 (42.45%) were managed medically and

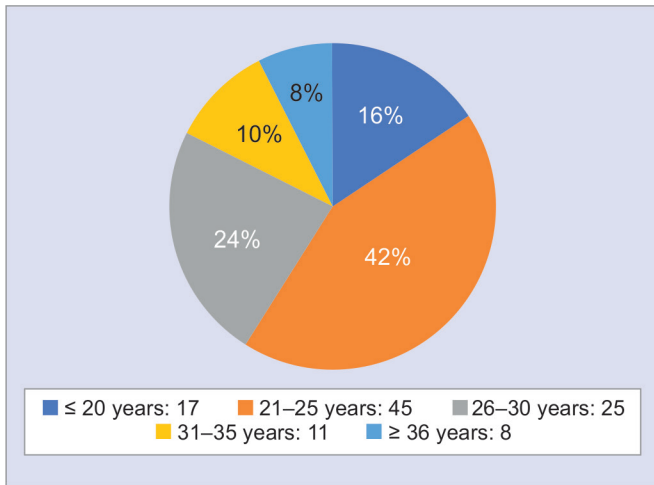


Fig. 1: Age distribution of the population

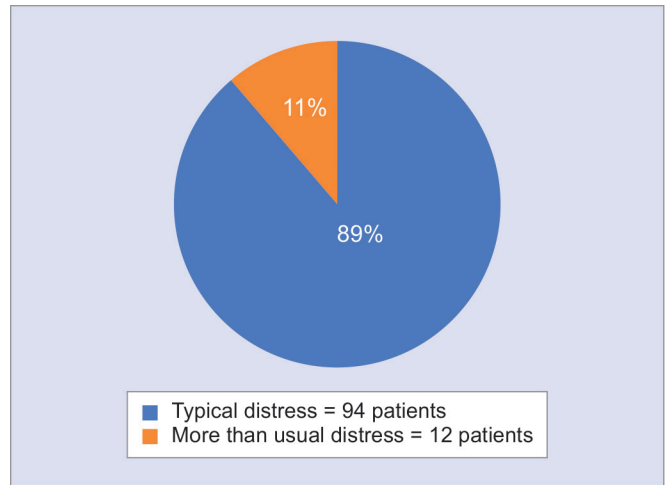


Fig. 3: Distribution of patients based on level of distress (GHQ-12)

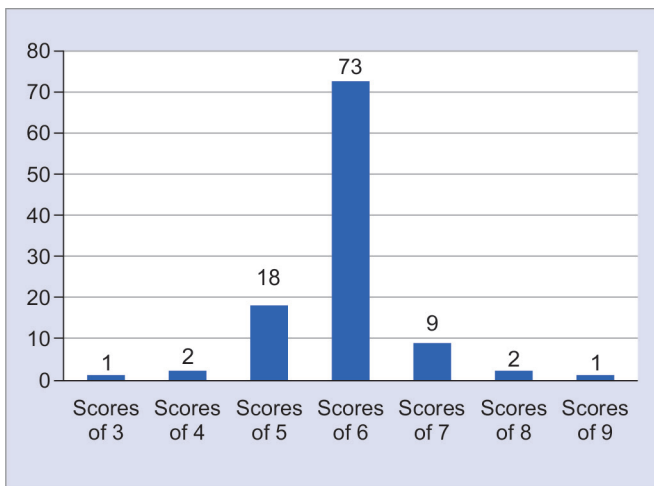


Fig. 2: Distribution of GHQ-12 scores

Table 1: Demographic determinants of psychological distress: Comparison between patients with high and low GHQ-12 scores

Demographic parameter	Low GHQ-12 score (score of 6 or lesser)	High GHQ-12 score (score of 7 or more)
Age	25.5 +/-5.22	27.83 +/-5.72
Proportion of Non-Hindus	13/94 (13.84%)	0/12
Proportion of unemployed	16/94 (17.02%)	0/12
Proportion of those who were graduate or above	30/94 (31.91%)	4/12 (33.34%)
Proportion of those from urban area	54/94 (57.44%)	4/12 (33.34%)

the remaining needed surgical management (either primarily or converted from medical management).

About 19 patients (17.92%) had at least one medical comorbidity, 58 (54.71%) had used contraception at some point in the past. About 23 (21.69%) of the respondents wished future progeny.

Level of Psychological Distress

About 94 patients (89%) were found to have typical distress and 12 patients (11%) were found to have more-than-usual distress (as shown in Figures 2 and 3). This is an important finding of the study. This finding suggests the reasonably high prevalence of psychological distress among women undergoing abortions.

Among the demographic parameters, age of the patients with high GHQ-12 scores was slightly higher than those with lower GHQ-12 scores, but the difference was not statistically significant. (Table 1). Similarly, religion, employment status, educational status, and location of residence did not appear to have any bearing on the levels of psychological distress.

Being multigravida patients with at least one living issue (80% vs 35.09%, p -value = 0.013), presence of medical comorbidity (41.67% vs 15%, p -value = 0.0381), and wish for future progeny (83.3% vs 13.82%, p -value < 0.0001) were determinants of high

psychological morbidity (Table 2). Pregnancy order, the trimester at which abortion took place, spontaneity of the onset of abortion, mode of completion of abortion (medical or surgical), and usage of prior contraception did not appear to influence the level of psychological morbidity.

DISCUSSION

This was a study on the psychological impact of abortion/MTP. Those who underwent spontaneous abortion and those who were obligated to undergo MTP for either maternal or fetal factors were included in the study. Those who underwent MTP for “failure of contraception” were excluded. In other words, those who wilfully wanted discontinuation of the pregnancy were excluded.

The study highlights and reconfirms the fact that postabortal women experience a reasonably high level of psychological distress. Those with significant distress were noted to be 11%, which is in sync with the findings of Sharma et al. (6% pre procedure and 10.1% post procedure). The findings of Kotta et al. focused on distinguishing between the quantum of distress between those who underwent elective/spontaneous and therapeutic abortions, which was not the theme of this study.

The mean GHQ-12 scores in the current study were 5.91 ± 2.75 , which is slightly lesser than the mean scores in the study by Kotta et al. (10.1 ± 5.51). Nevertheless, the value in our study is comparable to that of the group that underwent elective abortion (5.00 ± 3.82).

Table 2: Obstetric/medical parameters contributing to psychological distress: comparison between patients with high and low GHQ-12 scores

Obstetric/medical parameter	LOW GHQ-12 score (score of 6 or lesser)	High GHQ-12 score (score of 7 or more)	p-value
Proportion of primigravidae	37/94 (39.36%)	2/12 (16.67%)	0.203
Proportion of multigravidae with at least one living issue	20/57 (35.09%)	8/10 (80%)	0.0130*
Proportion of patients with at least one prior abortion	20/94 (21.6%)	8 (66.67%)	0.0023*
Proportion of those in first trimester	72/94 (76.59%)	7/12 (58.33%)	0.384
Proportion of spontaneous abortions	59/94 (62.76%)	8/12 (66.67%)	0.243
Proportion of medical management	38/94 (40.42%)	7/12 (58.33%)	0.3529
Proportion of patients with medical comorbidity	14/94 (14.94%)	5/12 (41.67%)	0.0381*
Proportion who used contraception earlier	53/94 (56.93%)	5/12 (41.66%)	0.379
Proportion who wished future progeny	13/94 (13.82%)	10/12 (83.34%)	<0.0001*

*p-value indicate $p < 0.05$

Elderly women experienced more psychological distress compared with younger women. No such impact of age was noted in the study by Pershad J et al. also. In our study, we noticed no association between educational study and psychological distress. This is in contrast to the above study by Pershad J et al. who noted lower educational status to be a significant determinant of psychological distress. In our study, the presence of a living child and prior abortion are associated with psychological morbidity post abortion. This is in sync with the findings of Pershad J et al. In our study, there was no association between higher gestational age and psychological morbidity post abortion. This is contrary to the findings of Pershad J et al., who noted that higher gestational age is associated with stress and anxiety. The advantage of a larger sample size (1,294 patients) in the study by Pershad J et al. is beset by the nonobjective method of classification of stress/anxiety. Whereas in our study, the objective method of identifying stress (GHQ-12) is accompanied by a smaller sample size of 106 only. Nevertheless, both studies reconfirm the high level of postabortion stress and the need to focus more on this topic.

There may be a difference in the course of mental health after miscarriage and pregnancy termination.¹⁶ However, we did not focus on the difference between pregnancy termination-related psychological morbidity and miscarriage-related psychological morbidity.¹⁶

In this study by Broen et al., women who experienced induced abortion had significantly greater IES scores for avoidance and for the feelings of guilt, shame, and relief than the miscarriage group at two and five years after the pregnancy termination. The current study did not delve into the details of the individual components of psychological morbidity—which may not be entirely an obstetrician's perspective. The utilization of a well-documented numerical scale for quantification of psychological morbidity, simultaneously focusing on its determinant factors, is an advantage of this study, a significant improvement over the study by Pershad J et al.

This study was a cross-sectional study. The lack of a longitudinal follow-up is a drawback of this study.

CONCLUSION

Postabortion care is not complete till the psychological component is also addressed. All medical practitioners should be more sensitive

toward their patients' psychological needs. Those with medical comorbidity, those who wish future progeny, those with prior abortion, and those with no prior living issue are likely to suffer from higher stress due to abortion. An event that is very common (abortion/MTP) can be used as a starting point for improving psychological well-being of women. Simple nonstigmatizing tools like GHQ-12 can be used even by the generalist obstetrician to identify stress levels. The need to introduce a *routine* screening for postabortion psychological distress merits further study.

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