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ORIGINAL ARTICLE

SUICIDAL IDEATION AND SELF HARM DURING PREGNANCY AMONG WOMEN ATTENDING ANTENATAL CARE

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Background: Pregnancy can sometimes give way to darker emotions, as the complex interplay of hormonal, psychological, and social factors increases the risk of suicidal thoughts and self-harm behaviours. This study aims to determine the frequency of suicidal ideation, self-harm and factors contributing it among pregnant females presenting for antenatal care. **Methods:** It was a cross-sectional study conducted at Nishtar Hospital, Multan, and DG Khan Medical College, Dera Ghazi Khan, from May 2023 to Nov 2023 after taking approval from Ethical Review Board. Data was collected from 160 responders at 12–36 weeks of gestation after informed consent. Pregnant women with severe medical complications that may require immediate care and women who present an immediate risk of self-harm or suicide were excluded. Data was analysed on SPSS-22. **Results:** Total 16 out of 160 had thought of self-harming. Frequency of suicidal ideation was 10%. The 10th question of Edinburg Post-natal Depression Score (EPDS) 'The thoughts of harming myself' was answered as 'never' by 75.63%, 'hardly ever' by 6.25%' 'sometimes' by 8.13% and 'yes, quite sometimes' by 10%. **Conclusion:** Women who are depressed and had some form of domestic violence are at greater risk of having suicidal ideation. Attention should be given to establish mental health programs for pregnant women.

Keywords: Perinatal, suicidal ideation, self-harm, domestic violence

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INTRODUCTION

Suicidal ideation, often a precursor to suicide, commonly called suicidal ideas or thoughts, is a broad term used to describe non-active suicidality including preoccupation, contemplations or wishes of death.[1] Suicidal ideation is an important and often overlooked possible antecedent for mortality among high risk population such as pregnant women.[2] Pregnancy is a major and complex occasion in a woman's life that is related to significant physiological, social, and mental changes.[2] Suicide is a leading cause of maternal death during pregnancy and up to a year after birth.[3] In high income countries suicide accounts for 5–20% of maternal deaths. In comparison, among low and middle-income countries the combined occurrence of pregnancy-related deaths attributed to suicide is 1.7%.[1]

Studies indicate that pregnant women who endorsed suicidal fantasies are more likely to have current and lifetime co-morbid depressive and anxiety disorders than did women without suicidal ideation.[4] Women who undertake self-annihilation during pregnancy have a high rate of abortion, miscarriage, preterm delivery, and hospitalization.[5] Suicidal preoccupation in women is not only associated with poorer mother-infant bonding but also associated with impaired emotional and cognitive development and growth of children.[6,7] Lack of support, co-morbid mental illness, have low educational attainment, unemployment, unplanned pregnancy, previous suicide attempts, family history of suicide, and co-morbid chronic physical illness are main factors of self-destructive thinking during pregnancy in developing countries.[8–10]

Main aspiration of this study is to identify pregnant women who are at high risk of suicide and help in developing different and suitable intervention programs to decrease maternal mortality and morbidity. The aim of this study was to determine socio-demographic factors that affect mental health in pregnant women. This study is intended to assess the proportion of suicidal ideation and self-harm among pregnant women attending perinatal services at two main hospitals of South Punjab.

METHODOLOGY

It was a descriptive, cross-sectional study done at outpatient department of Nishtar Hospital Multan and DG Khan Teaching Hospital from May to Nov 2023 after taking approval from Ethical Review Board. Participants were selected through non-probability convenient sampling technique. The sample size was calculated from the formula: $n=(Za/2)^2\ _{P(1-p)/d^2}$ where n is minimum sample size required for study, Z=standard normal variant, which for 5% type 1 error is 1.96. The p is prevalence of suicidal ideation attempt taken from previous study (p=11.8)[2] and d is the absolute precision or tolerable margin of error (d=5), n=160.

A total of 160 pregnant ladies, 18–45 years old, at 12–36 weeks of gestation were included in the study after informed consent. Pregnant women with severe medical complications that may require

immediate and intensive remedial care and pregnant women who present an immediate risk of self-harm or suicide were excluded from the study. Data was collected from Gynaecology out-patients through self-administered questionnaire in local language of respondents. Edinburgh Postnatal Depression Scale (EDPS) score was used to identify women who may have depression. It comprises of 10 questions. Each answer was given a score of 0–3. The maximum score was 30. The 10 question was related to self harm thoughts. It was compiled and analysed on SPSS-22.

RESULTS

The sample consisted of 160 pregnant women. Majority (54.4%) of them fell in age group 25–35 years. Mean age of the subjects was 31.5±7.66 (Range: 13–40.5) years. Mean gestational age was 25.9±8.30 weeks. Most (123, 76.9%) of the women were house-wives and dependent on husband for living. Thirty-seven (23.1%) were working women, 65 (40.9%) women had family income of less than Rs. 30,000, 75 (47.2%) had monthly income Rs. 30,000–70,000, and 20 (12.4%) women had family income >Rs. 70,000. Women living in urban areas were 81 (50.6%) and 79 (49.4%) were from rural area. Twelve (7.5%) women presented during first trimester (<13 weeks), 75 (46.9%) presented during 2nd trimester (13–26 weeks), and 73 (45.6%) presented in 3rd trimester (27–36 weeks). (Table-1).

Women having 1st time pregnancy were 29 (18.1%), and multigravida were 131 (81.9%). Most of them lived in joint family system 108 (67.5%). The 10th question of EPDS 'The thoughts of harming myself' was answered as 'never' by 75.63%, 'hardly ever' by 6.25%, 'sometimes' by 8.13% and 'yes, quite sometimes' by 10%. Out of 160 pregnant women, 35 (21.8%) had an EPDS score ≥10 showing moderate risk of depression and anxiety during pregnancy. (Table-2).

Bivariate analysis was done and Chi-Square test was applied for data analysis. Odds ratio with 95% confidence interval were calculated. There was significant association between suicidal ideation in pregnancy and previous history of postpartum depression (p=0.03). Total 57 (35.6%) women experienced post-partum depression, out of which, 13 (22.8%) pregnant women experienced suicidal ideation. A total of 61 (38.1%) women had previous history of miscarriage. Only 9 (14.5%) women experienced self-harm thoughts. Total 103 (64.4%) females had previous history of still birth and 13 (12.6%) women had self-harm thoughts. Ninety-six women had history of domestic violence, out of which 7 (7.3%) women answered our question of suicidal ideation as 'yes'. (Table-3).

Table-1: Demographic and psychosocial factors among pregnant women of the study (n=160)

Variables	Categories	n	%
Age (Years)	16–24	27	16.87
	25–34	87	54.35
	35–44	42	26.3
	45	4	2.5
History of domestic violence	Yes	96	60.0
	No	64	40.0
History of postpartum depression	Yes	57	35.6
	No	103	64.4
Family history of psychiatric illness	Yes	28	17.5
	No	132	82.5
Previous miscarriages	Yes	61	38.1
	No	99	61.9
Monthly family income (Rs. ×1,000)	<30	65	40.9
	30–70	75	47.2
	>70	20	12.4
Residence	Rural	81	50.6
	Urban	79	49.4
Gestational Age at presentation (Weeks)	<13	12	7.5
	13–26	75	46.9
	27–36	73	45.6
Occupation	House-wife	123	76.9
	Working	37	23.1

Table-2: EPDS Score among the participants

EPDS score	N	%
1–3	7	4.4
4–6	90	56.3
7–9	28	17.5
≥10	35	21.8

Table-3: Association of socio-demographic variables with suicidal ideation during pregnancy

Categories	Suicidal ideation Yes [n (%)]	Suicidal ideation No [n (%)]	OR (95% CI)	p
Previous Miscarriages				
Yes	9 (14.75)	52 (85.2)	2.71 (0.41, 18.0)	0.285
No	7 (7.1)	92 (92.9)	1	
Previous History of Still Birth				
Yes	13 (12.6)	90 (87.4)	2.67 (0.27, 25.8)	0.382
No	3 (5.3)	54 (94.7)	1	
History of Domestic Violence				
Yes	7 (7.3)	89 (92.7)	0.40 (0.06, 2.6)	0.336
No	9 (14.1)	55 (85.9)	1	
History of Postpartum Depression				
Yes	13 (22.8)	44 (77.2)	8.85 (0.90, 86.6)	0.03
No	3 (2.9)	100 (97.1)	1	

DISCUSSION

The present study indicates a high burden of suicidal risk and self-harm among pregnant women with far-reaching consequences for maternal and infant health, among the two teaching hospitals of South Punjab, Pakistan. This issue has not been given importance in statistical data of maternal morbidity and mortality. Majority of women experienced self-harm thoughts were having history of domestic violence and previous history of postnatal depression. Notably, the withdrawal of progesterone on the postpartum period has been implicated in post natal depression, which may also contribute to suicidal ideation. Another important finding was that suicidal behaviour was higher among women who had formal education. Lack of tolerance for existing social structure may lead to be in more conflicted relation with a restrictive society. Women living in urban areas are more likely to have suicidal thoughts.

Nevertheless, percentage of women with suicidal ideation found in our study is almost consistent with available data from other low resource countries. For example, suicidal ideation is common among 4% of Brazilian pregnant women.[1] In Spain, 2.5% of Maternal mortality was secondary to suicide.[4] Another study on 23 countries distributing on six continents, including Asia, North America and South America, found that 8% prevalence of suicidal ideation.[6] Prevalence among pregnant women in Jimma Medical Centre, Ethiopia was 13.3%.[8] Prevalence of suicidal ideation at public hospitals in Southern Ethiopia was 11.8%.[2] These results are quite similar to our study where feeling of self-harm is reported in 10% pregnant ladies. Mean age of our study was 31.5 years while another study done in Ethiopia[8], mean age was 25.5 years among the participants. In our study, domestic violence is reported in 60% of participants which is quite high while in another study, it was only 22.5%.[8]

According to study in Sri Lanka, feeling of self-harm was 2%.[11] According to study conducted in Canada, suicidal ideation was 10.4% quite close to our results.[8] According to study, in South Africa, thoughts of self-harm was 5.9% among pregnant females.[12] Another study including 18 sub-Saharan African countries showed Self harm and suicidal ideation prevalence of 10.3% like our study.[13] The prevalence rate of self- harm was 23.5% in a study conducted in times of pandemic.[14] This is almost double than our results We only found postpartum depression significantly correlated with suicidal thoughts in pregnancy. Although various factors like family history of psychiatric illness, personal history of psychiatric illness, parity, monthly income, were also associated with suicidal ideation in another study in Ethopia.[2,15]

This study has several limitations. The sample size was relatively small, which may limit the generalization of the findings. Since our study was based on patient questionnaire data, we had no data on successful suicidal attempts.

The findings of our study have significant implications for the development of targeted interventions and policy initiatives. Routine screening and comprehensive risk assessment for mental health condition should be considered during antenatal and postnatal care.

CONCLUSION

Hidden burden of maternal mental health is major concern for many under-developed and developing countries with same social background. Maternal mental health issue should be utmost priority among low income countries. Future research should investigate the effectiveness of interventions aimed to reduce suicidal ideation and self-harm thoughts during pregnancy.

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