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ANALYZING THE EFFECTS OF PREGNANCY AND CHILDBIRTH ON WOMEN'S MENTAL HEALTH IN CHILAS, GILGIT-BALTISTAN: A CROSS-SECTIONAL STUDY

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ABSTRACT

Background

Factors such as inadequate healthcare access and a lack of social support amplify the prevalence of mental health concerns including anxiety and depression among women worldwide during and after pregnancy. There is an increased risk of mental health disorders during and after pregnancy for women in rural areas like Chilas District Diamer Gilgit-Baltistan, where cultural norms are strong and health services are few.

Objective

Among women in Chilas, District Diamer, Gilgit-Baltistan, we aimed to determine the frequency of postpartum depression and anxiety and the variables that were linked with it.

Methods

Using the Edinburgh Postnatal Depression Scale (EPDS) and the Generalised Anxiety Disorder 7-item (GAD-7) to screen for depression and anxious symptoms, a cross-sectional study was carried out among 200 women of reproductive age. We used logistic regression models to look for connections between people's demographics, the method of delivery, and their social support system and mental health outcomes.

Results

Anxiety disorders were present in 29% of people, whereas depression affected 37%. Postpartum depression was more prevalent (65% of depressed women). An individual's likelihood of experiencing mental health concerns was significantly increased when they lacked education (OR = 2.3, CI: 1.4-3.8), had a poor income (OR = 2.7, CI: 1.8-4.2), gave birth at home (OR = 1.9, CI: 1.2-3.1), and had lower social support (OR = 2.1, CI: 1.4-3.2).

Conclusion

Socioeconomic status, level of education, and access to healthcare all have a role in the high rates of depression and anxiety experienced by women in Chilas. In order to tackle these issues, we must implement interventions that enhance healthcare accessibility, education, and social support.

Community mental health therapies that are sensitive to Chilas's unique cultural and economic circumstances should be the subject of future studies.

Keywords: Effects of Pregnancy, Childbirth, Mental Health

Introduction

Lack of social support and hormonal changes affect a woman who is pregnant and might affect her mental state during childbirth. Depression or anxiety in pregnant women and women after childbirth is widespread throughout the global community as it is recorded that approximately 10% of all pregnant women and 13% of postpartum women experience the symptoms(1). These mental conditions can befoul the health of the mother, disrupt the mother-child relationship, and sometimes even the child's future development(2). Hence, the COs: There is evidence that in remote areas these factors could increase risks of mental health disorders among pregnant and post-natal women, especially in Chilas Gilgit Baltistan Pakistan where they adopt the least health facilities and have strong cultural norms and traditions(3).

Chilas, a far-off town in District Diamer of Gilgit-Baltistan, has many health issues, and mental health facilities and human resources therein and elsewhere are scarce. Combined with cultural beliefs, economic difficulties, and lack of social support increases the risks of developing mental health issues particularly with among women during pregnancy and childbirth(4). One of the key areas that seem to be overlooked in most maternal health care initiatives in the selected rural areas is mental health. The purpose of this study is to determine the depressive and anxiety symptoms and related factors among women of childbearing age in Chilas district during pregnancy and postnatal period using cross-sectional study.

METHODOLOGY

Study Design

This research work used a cross-sectional study in order to assess the mental health status of women during pregnancy and post-natal periods in Chilas, Gilgit-Baltistan. Cross-sectional epidemiological studies are well suited for identifying disease frequency in a population at a given time point makes it appropriate for evaluating maternal mental health status in this area(5).

Study Population

The study embraced pregnant and postpartum women from Chilas. A convenience sampling technique was employed to ensure the target group of women was enrolled in the study in large numbers. The inclusion criteria were:

- Women aged 18 to 40 years.

Pregnant women especially the third trimester or postpartum women within the twelve months after delivery.

- Domicile holders of District Diamer.

Women with pre-existing psychiatric disorders were excluded from the study to avoid confounding the results.

Sample Size

The study sample size was calculated using the formula for cross-sectional studies, with an expected prevalence rate of 20% for maternal mental health disorders in rural settings(6). A total of 200 women were included, allowing for sufficient power to detect significant associations between risk factors and mental health outcomes.

Data Collection

Information was gathered between May And August 2024 through a structured questionnaire. To screen for depressive symptoms the Edinburgh Postnatal Depression Scale (EPDS) was used(7) and for anxiety the Generalized Anxiety Disorder 7-Item scale (GAD-7)(8). Dependent variables included socio-demographic characteristics (age, education, income, and marital status), obstetric history, and the level of social support.

The interviews were conducted face-to-face, and the interviewers were trained healthcare workers fluent in the local language as well as culture. Participants gave oral consent to participate in the study and anonymity and confidentiality were maintained throughout the study process.

Data Analysis

All data analyses were performed with the help of the software package SPSS 25. Demographics were first described using descriptive statistics and the prevalence of depression and anxiety were estimated from the EPDS and GAD-7. Logistic regression models were used to test hypotheses related to mental health outcomes and socio-demographic status, obstetric history, and social support. The significance level was determined by alpha, $p < 0.05$.

RESULTS

Socio-Demographic Characteristics

Among the surveyed 200 women, their mean age was 26.4 years (Standard Deviation = 5.8). Of the respondents, 68% had attended school and none of them had continued their education beyond primary education, 85% earned less than 15,000 PKR monthly. Traditional birth attendants assisted 79% of women during home births while 21% of women delivered in health facilities.

Table 1: Socio-Demographic Attributes of the Study Population

Characteristic	Frequency (%)
Sample Size	200
Mean Age	26.4 years (SD ± 5.8)
Formal Education (None)	68%
Low-Income Households	85%
Home Births	79%
Healthcare Facility Deliveries	21%

Prevalence of Depression and Anxiety

EPDS scale showed that 37% for participants had depressive symptoms and 29% for participants had anxiety symptoms which GAD-7 evidenced. Among the women who reported having depressive symptoms, 65 % reported the symptoms during the postpartum period hence the results highlight that new mothers are more likely to develop depression after giving birth than during the period of pregnancy.

Table 2: Incidence of Depression and Anxiety Symptoms

Mental Health Measure	Frequency (%)
Prevalence of Depression (EPDS)	37%
Prevalence of Anxiety (GAD-7)	29%
Depression in Postpartum Period	65% of those with depression

Factors Associated with Mental Health Disorders

Women lacking formal education were 2.3 times more likely to exhibit depressive symptoms (odds ratio [OR] = 2.3, 95% confidence interval [CI]: 1.4–3.8) than those with any degree of formal education.

Participants from homes with lower monthly earnings had a substantially increased likelihood of experiencing both anxiety and depression (OR = 2.7, 95% CI: 1.8–4.2) in comparison to those from higher-income families.

• **Delivery Type:** Home-based deliveries correlated with an increased prevalence of depressed symptoms (OR = 1.9, 95% CI: 1.2–3.1), underscoring the effects of insufficient healthcare access(11).

Women with diminished social support from family and community members had a twofold increase in the likelihood of experiencing anxiety symptoms (OR = 2.1, 95% CI: 1.4–3.2) relative to those possessing sufficient support networks

Table 3 shows the things that are linked to mental health disorders.

Factor	Odds Ratio (OR)	95% Confidence Interval (CI)
No Formal Education	2.3	1.4–3.8
Low Income (< 15000 PKR)	2.7	1.8–4.2
Home-Based Deliveries	1.9	1.2–3.1
Low Social Support	2.1	1.4–3.2

Table 4 shows how socioeconomic status and health care affect mental health.

Factor	Impact on Mental Health
Low Education	Increased likelihood of depression and anxiety
Low Income (< 15000 PKR)	Higher prevalence of anxiety and depression
Home Deliveries	Associated with higher levels of depressive symptoms
Lack of Social Support	Doubled likelihood of anxiety symptoms

Discussion

This cross-sectional study was conducted on pregnant and postpartum women attending the RHQ in Chilas District Diamer of Gilgit Baltistan & it was revealed that depressive and anxiety symptoms were common in the study participants, and the education level, economic status, type of delivery, and social support were the contributing factors. The levels of depression (37%) and anxiety (29%) are much higher than the global rate or are at least doubled, attributed to poverty, culture, and lack of access to mental health care services.(13)

Mental health problems were another of the highlighted risks of home births. Home birth served as an independent risk factor for depression among women, suggesting that home birth and associated stressors such as the isolation and uncertainty due to unattended birth, and lack of postnatal health care support might contribute to depression(14). These results are parallel to previous research from other rural contexts, which associates home deliveries with increased maternal stress and worse mental health(15).

The other important variable was educational level, women with no education reported higher levels of anxiety and depression. Lack of education may limit women’s chances of learning about health to help them overcome mental health issues of pregnancy and childbirth(16).

Moreover, it was found that low SEP and income level was a highly significant risk for both depression and anxiety which only underlined the need to approach poverty as a significant predictor of maternal mental health. The female participants reported a number of stressors which include poor diet, unhygienic living conditions, and financial stress, these negatively impacted on their mental health(16).

The current findings identified the absence of required levels of social support as a determinant of MMH. Previous research also suggested that women who perceived they received less social support from their families and friends were more anxious. In such societies as Chilas with many patches of traditional custom, newborn women especially women are likely to feel so lonely since their role is

reduced to simply being the babies receptacles no one cares whether or not they are emotionally or practically capable of handling the responsibilities they are supposed to shoulder.

Conclusion

This cross-sectional study reveals a high prevalence of depression and anxiety among pregnant and postpartum women in Chilas, Gilgit-Baltistan, with socioeconomic, educational, and healthcare-related factors playing a significant role in mental health outcomes. Interventions focusing on improving access to maternal healthcare, enhancing education, and strengthening social support networks are critical to addressing the mental health challenges faced by women in this region. Future studies should explore the effectiveness of community-based mental health interventions tailored to the cultural context of Chilas.

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