

Assessment of Mental Health and Related Factor in Pregnant Women Referred to Selected Maternity Clinic in Agra, India

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Abstract: ***Introduction:** Pregnancy is the most worthy and sensitive chapter in women's life which makes many psychological and mental conflicts. Although mental health aspect is vital component of individual wellbeing but unfortunately it is neglected. Present study is carried out to assess mental health and related factors in pregnant women. **Methods:** Descriptive analytic study has been done on 672 samples referred to selected maternity center of Agra city, India in 2017 by convenience sampling method. Research tools used in this study were General Health Questionnaire 28 (GHQ-28). Data were analyzed using regression analysis testing and the $p < 0.05$ was considered significance. **Result:** Research findings showed that 54% of women were psychologically healthy and about 46% of them suspected of mental disorders. Also related factors such as "Economic situation", "Smoking", "The age of first pregnancy", "Unwanted pregnancy", "Physical illness", and "Other satisfaction with pregnancy", a significant relationship was observed with the mental health of pregnant women ($p < 0.05$). **Conclusion:** Considering the present research findings, informing the women and their family members about prevalence of mental illness, the effect of underlying factors and confronting ways with these problems are essential. Also, it is important for physician to know about these issues in terms to help pregnant women.*

Keywords: Mental health, pregnant women, related factors, maternity clinic.

1. Introduction

Pregnancy is generally thought to be a time of happiness and emotional well being for a woman. However, for many women, pregnancy and motherhood increase their vulnerability to psychiatric conditions such as depression, anxiety disorders, eating disorders, and psychoses. These conditions are often undertreated because of concerns about potential harmful effect of medication. It's just as important to look after mental health and well being during pregnancy as physical health. If the woman is mentally healthy, she will be in the best position to manage the challenges of pregnancy and life with a new baby. Preparing to have a baby come into woman's life is an exciting time, but also a challenging one. Pregnancy itself can be stressful. As well as dealing with hormonal and physical challenges. Women may feel stressed about things such as antenatal tests, particularly if she had a bad experience before, such as a miscarriage. Emotional changes during pregnancy occur naturally, but they are sometime symptomatic and should seriously be considered so that about half of mental disorder during pregnancy or postpartum are related to depression.

A new UK study has found that a quarter of women actually suffer from mental health problems during these nine months. A study carried out by Chelsea Ritschel and Howard at King's college London by recruiting 545 pregnant women attending their antenatal appointments from November 2014 to June 2016. The results were surprising – and reflect a greater need for mental health checks for pregnant women. According to the results, one in four women had mental health issues during pregnancy. 11% suffered from depression, 15% had anxiety, 2% suffered from eating disorders, 2% had obsessive-compulsive disorders, with many women suffering from

multiple issues. Addressing these mental health issues during pregnancy is important because "mental disorder during pregnancy is associated with adverse outcomes for women, pregnancy, the fetus, infant, childhood and adolescence". In a study of 267 pregnant women in Shahrkord, Iran the prevalence of mental disorder was reported 29.7% in first trimester, 28.6% in second trimester and 39.6% in third trimester.

Common mental health disorders have been associated with social condition, as shown by indicators such as low educational level, low economic status, or absence of social support. These disorders are risk factor for poor pregnancy outcome. Women's mental condition during pregnancy has a huge impact on the health of fetus; lack of attention to mental condition can cause serious impact. It has proven by researches that severe depression in pregnancy increases the risk of stillbirth, low birth weight and suicide.

Genetic, biochemical, endocrine, psychological and social factors are considered as a reason for psychiatric disorder in pregnancy. They may also have negative postpartum consequences on maternal psychological health and children's behaviour and neurodevelopment. Early identification and treatment of psychiatric disorder in pregnancy can prevent morbidity in pregnancy and post partum with the concomitant to mother and baby.

2. Methods

Descriptive-analytical study has been done on 672 pregnant women referred to Selected Maternity Clinic in Agra, India. Sample is selected by convenience sampling method. Women of all age groups surveyed. Research tools included two

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questionnaires. Using the first questionnaire the researcher has collected the demographic data such as (age, education, education of spouse, job, job of spouse, age of marriage, economic status, living area, smoking) and the information of pregnant women such as primigravida age, course of pregnancy (first, second and third trimester), Gestational age, Wanted pregnancy. Abortion, Satisfaction of others, Physical illness).

The second tool was General Health Questionnaire (GHQ-28). It is a validated and reliable instrument measuring psychological disorder. Disorders are measured at four dimensions including "somatic symptoms", "anxiety/insomnia", "social dysfunction", and "severe depression", each dimension is measured by 7 questions. Score 0 was devoted to "At all", score 1 to "Usual", score 2 to "More than usual", and score 3 was devoted to "Much More than Usual" in Likert scale. Score more than 6 in each subscale and more than 22 in total indicates pathological symptoms. Women whose total score at 23 or more were taken as suspected cases of mental disorders. Descriptive and inferential statistic (Multivariate Regression Test) in SPSS 22 software were used to analyze data

3. Results

In present study, 672 pregnant women from selected maternity clinics were taken and the mean age of them was 26.2 ± 7.2 years, 54% of the women were mentally healthy and about 46% were suspected to any of the mental disorder. The highest incidence of disorder 82.1% was related to anxiety and sleep cycle disturbances, 79.8% of poor social function, 75% of somatic symptoms and 26.2% of depression. The multivariate regression shows that among all demographic information, "economic situation" and "the age first pregnancy" have significant negative correlations in predicting score of mental. Given that low scores in mental health questionnaire is indicative of mental health in people, so in this research the results shows that the more of socioeconomic situation is improving and higher age at first pregnancy is, the women have more mental health. Research results also show that "physical illness", "smoking", "unwanted pregnancy" and "dissatisfaction of others with women pregnancy" significantly predicted mental health, and all of them explained 23% of the variances.

Table 1: Mental disorder in pregnant women

Dimension of Mental Health	No Symptom of Mental Problem No.(%)	Showing Mental Problem Symptom No.(%)	Mean \pm SD
Anxiety and sleep disturbances	30(17.9)	138(82.1)	6.65 \pm 3.68
Social dysfunction	36(21.4)	132(78.6)	7.42 \pm 2.24
Somatic symptoms	50(29.8)	118(70.2)	6.23 \pm 3.32
Depression symptoms	124(73.8)	44(26.2)	2.23 \pm 3.27
Total	240	432	22.53 \pm 12.51

Table 2: Regression analysis for demographic variable and mental health

Variables	Unstandardized Coefficients		Standardized Coefficients	T	P value
	B	SE	Beta		
Economic situation	-3.14	1.38	-0.16	-2.27	0.02
First pregnancy age	-2.45	1	-0.22	-2.46	0.01
Wanted pregnancy	4.35	1.85	0.18	2.35	0.02
Satisfaction of others	6.53	2.6	0.18	2.51	0.01
Physical illness	5.25	1.36	0.26	3.85	<0.01
Smoking	11.72	4.44	0.18	2.64	<0.01
R ²	23%				

4. Discussion

Although many studies have been conducted in the area of mental health, but knowing about mental health in pregnant women is the highest priority. Present study shows prevalence of mental disorder among pregnant women is 46% which can be connected with the figure reported for the mental disorder in Kashan with prevalence of 40%. Robins' study in England revealed that more than 70% of pregnant have some depression symptoms. In his study prenatal stress and anxiety were considered as a factor in outbreak of depression and previous history of depression, marital problems, recent stressful life events, losing job and death of the loved one were associated with mental problem. In another study on pregnant woman in England 25% of women reported a high level of fear and 20.6% reported low sleep, also there was positive relationship between fear of childbirth, fatigue, sleep deprivation and anxiety. This researcher also refers to the most prevalent pregnancy disorders and interference of these disorders with the person's abilities to care of herself, deficiencies in nutrition, sleep disorders and anxiety and worry symptoms

According to the factors affecting mental health in pregnancy, the finding of this study shows that there is a significant relationship between mental disorder and women's economic situation. Research by C Muntaneur et al (2007) and P Skapinakis et al (2007) show that low socioeconomic status are important predictor for poor mental health in pregnancy.

In present study a significant relationship was observed between mental health and age which is supported by the another study findings on this topic the results show that the higher age at first pregnancy is, the women have more mental health and mature women for better encounter with this important event can have abilities to justify and resolve the issue.

This study shows a relationship between unintended pregnancy and prevalence of disorders in the sample under study. Zarei Pour et al (2012) conclude that mental disorders are twice more in the women with unintended pregnancy than the woman who was pregnant with planning. Women with unwanted pregnancy face emotional and psychological problems. Health care facilitator must need to care and support to battle this thorny period.

Support of others in current pregnancy is also a related factor for the protection of mental health, this is matched with the findings of Sheng et al (2010) which revealed that good social and familiar support causes improving mental health.

A significant relationship is observed between physical illness and mental health; in another study conducted on a group of pregnant women, the result show that there is significant relationship between mental health and physical illness during pregnancy, which may be due to the sickness and inability of them in the use of effective strategies to deal with the problems of life.

In this study a significant relationship is observed between smoking and mental disorders. The result of a previous study conducted by Emily B. Zimmerman, Steven H. Woolf, and Amber Haley et al showed that smoking among psychiatric patient is more than the people without mental disorders and it is less likely that these people leave smoking. Hormonal changes in mother's body and vulnerability of women in this period, a correlation can be predicted between smoking and mental illnesses. Also, in addition to the physical effect of drug abuse during pregnancy on mother and fetus it will be an important impact on both of them. One study has exposed that smoking during pregnancy can affect developing fetus's mental growth. Attention Deficit and Hyperactivity Disorder (ADHD), cognitive and behavioral abnormalities are the disorders that can be seen in children of mothers who smoke.

5. Limitations of Study

This study is limited to the samples of one city only i.e. Agra UP. It was a cross sectional study, it can only discovered the association variable, without any causal relationship to be surveyed. Another limitation of this study was that a history of psychiatric disorders in the target group was not assessed.

6. Recommendation

It is suggested for the future studies that research can be conducted on larger sample. Longitudinal research design can be adopted for the future studies. A comparison stud can also be conducted between rural and urban residential areas. In future studies more detailed questionnaire to be used to assess and identify mental disorders. Finding of the study also led to the need for new public mental health policies in the field of maternal infant care geared towards population of pregnant women.

7. Conclusion

According to the World Health Organization, virtually any woman can develop mental disorders during pregnancy and in the first year after delivery, but certain factors – including poverty, migration, stress, exposure to violence, emergency and conflict situations, natural disasters and low social support – increase the risk. The consequences are considerable. The WHO reports that a mother with depression may not eat

healthfully, bathe or care for herself, which increases the risks of her own poor health. Suicide and, in rare cases, infanticide are also possible. The baby can be affected as well. Mental illness interferes with mother-infant bonding, breast-feeding and infant care, the WHO says.

Maternal mental health research is a public health priority due to its impact on both maternal and child health. Despite the growing number of empirical studies in this area, particularly from developing countries, there is a paucity of synthetic review articles. Therefore, attempting to synthesize the existing literature in this area seems relevant to appraise the readers of the field's progress and to infer directions for future research. The present review aims to provide an overview of the literature on maternal mental health and its association with birth outcomes and child behavior. Specifically, the literature on mental health during pregnancy and in the postpartum period and its influence on birth outcomes and child behavior have been reviewed. Further, a conceptual and methodological evaluation of the existing literature has been provided to identify gaps in the literature and to suggest directions for future research.

There are many studies conducted on the same issue and different results are found in these studies about the prevalence, occurrence and risk factors of mental disorders, but in most of the studies has given consistent results, the difference has been found because of difference in time, tool, culture, geographical area etc. Many researches showed that high number of pregnant women suffers from a variety of mental problems and risk factors. Prenatal and postnatal period present the highest prevalence of mental disorders in women's lives, ignoring these have a negative effect on mothers as well as on growing fetus. So educate and aware the woman and as well as family about these problems are essential for taking appropriate measures on time. It is also important for the health care provider to early identify and treat these problems to prevent negative consequences.

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