ANALYSIS OF STRESS AND DEPRESSION DURING PREGNANCY

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Abstract:
Introduction: Stress and anxiety are relatively common in pregnant women during the prenatal period, this topic is currently receiving a large amount of attention from researchers. The immediate and longer-term consequences of antenatal stress and anxiety are far-reaching, not only affecting the mother but also her infant. Aims and objectives: The basic aim of the study is to find the depression and anxiety during pregnancy among women. Material and methods: This study was conducted at BHU Khusar, Mandi Bahauddin durinf Dec 2017 to May 2018. These studies consist of 100 pregnant women who visited the hospital regularly during their pregnancy. We use the AKUADS scale for the measurement of level of anxiety and depression among pregnant women. Results: There were100 pregnant women who participated in this study. The overall mean age was 28.3±6.3 years [95% CI: 27.7, 28.8]. Age difference between those with and without anxiety/depression was not significant (p = 0.495). Moreover, 359(71.8%) women were anxious and depressed while 141(28.2%) women were not anxious/depressed based on the AKUADS score. Conclusion: It is concluded that the level of stress become increases among pregnant women. Further studies are needed to establish the cause and effect between stress and anxiety/depression in antenatal women.

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INTRODUCTION:

Stress and anxiety are relatively common in pregnant women during the prenatal period, this topic is currently receiving a large amount of attention from researchers. The immediate and longer-term consequences of antenatal stress and anxiety are far-reaching, not only affecting the mother but also her infant. Stress and anxiety during pregnancy could diminish one's capacity for self-care, which could lead to inadequate nutrition, all of which could have influence on the gestation and delivery such as intrauterine growth restriction (IUGR), premature births, low birth weight *et al* [1]. Meanwhile, it could affect the nervous system development of infants and the psychological development of children. Moreover, a recent study has revealed antenatal stress and anxiety could lead to postpartum psychological disorders and psychosis. All of the above analyses highlight the importance of prenatal mental health care [2].

Depression is one of the most common complications during pregnancy and the childbearing years. The prevalence of major depressive disorder defined by diagnostic criteria during pregnancy is 12.7%, while as many as 37% of women report experiencing depressive symptoms at some point during their pregnancy.3 Anxiety is known to be more prevalent than depression at all stages of pregnancy although there is a high level of comorbidity of about 60% between the two.3,4 Additionally, the way a woman perceives and interprets various stressful events in her environment during pregnancy has gained increasing research attention, especially in respect to the contribution to adverse birth outcomes [3]. Experiencing depression, anxiety, or stress (DAS) during pregnancy may expose both mother and infant to many psychological risks, including an impaired bonding with the fetus and with the new-born, increased risk of poor psychological postnatal adjustment, postnatal depression, and physiological consequences, including low birth weight, intra-uterine growth restriction, and preterm birth [4].

Aims and objectives

The basic aim of the study is to find the depression and anxiety during pregnancy among women.

MATERIAL AND METHODS:

This study was conducted at BHU Khusar, Mandi Bahauddin durinf Dec 2017 to May 2018. These studies consist of 100 pregnant women who visited the hospital regularly during their pregnancy. We use the AKUADS scale for the measurement of level of anxiety and depression among pregnant women. After taking informed consent, both these scores were administered to antennal women and their responses were recorded. A cut-off value of 19 was taken on AKUADS to identify patients with anxiety and depression and women with a score >19 were labelled as anxious and depressed. For AZSS, there were 30 stressor items that represented the stress level for an individual woman and women with higher scores were taken as having more stress.

Statistical analysis

The data of respiratory function were compared between the smoker and non-smoker groups using the independent t-test for normally distributed data or the Mann-Whitney U test for other distributions. Differences were considered statistically significant at $p < 0.05$.

RESULTS:

There were100 pregnant women who participated in this study. The overall mean age was 28.3±6.3 years [95% CI: 27.7, 28.8]. Age difference between those with and without anxiety/depression was not significant (p = 0.495). Moreover, 359(71.8%) women were anxious and depressed while 141(28.2%) women were not anxious/depressed based on the AKUADS score.

Table 01: Analysis of measurment of stress level among pregnant women

		Anxious & Depressed* (n=359)	Not-Anxious or Depressed* (n=141)	Total (n=500)	P value (Chi Square)
Stress Level#	1-10	74 (20.6%)	72 (51.1%)	146 (29.2%)	<0.001
	11-20	209 (58.2%)	61 (43.3%)	270 (54.0%)	
	21-30	76 (21.2%)	8 (5.7%)	84 (16.8%)	

#based on A-Z stress scale;
*based on AKU Anxiety and Depression Scale cut off value of 19
AKU: Aga Khan University.

Women married to their cousins were significantly more stressed, albeit with a small effect size (p=0.019), but not more depressed and anxious than women married among non-relatives (p=0.593). On the contrary, women having exchange marriage situations were significantly more depressed, with medium effect size (p=0.014), but not more stressed compared with those married outside of an exchange bond (p=0.085).

Having more alive male children compared to females had no significant effect on the outcome of being stressed or depressed and anxious (p= 0.765 and p= 0.526).

Table 02: Frequency of most common stress types

Stressor	Anxious & Depressed* (n=359)	Not Anxious or depressed* (n=141)	Total (n=500)
(No.9) concern about husbands worries	323 (74.6%)	110 (25.4%)	433 (86.6%)
(No.23) concern about feeling unwell during pregnancy	323 (74.6%)	110 (25.4%)	433 (86.6%)
(No.16) concern about increase in the prices of every day goods	278 (76.4%)	86 (23.6%)	364 (72.8%)
(No.24) concern about waking up late due to pregnancy	270 (81.3%)	62 (18.7%)	332 (66.4%)
(No.21) concern about delay in household work due to pregnancy	258 (79.6%)	66 (20.4%)	324 (64.8%)
(No.8) concern about household responsibilities	246 (82.8%)	51 (17.2%)	297 (59.4%)
(No.12) concern about parents illness	217 (76.1%)	(23.9%)	285 (57%)
(No.7) concern about owing money	223 (81.1%)	52 (18.9%)	275 (55%)
(No.18) concern about children's illness	218 (79.3%)	57 (20.7%)	275 (55%)
(No.11) Concern about verbal abuse by husband	215 (78.8%)	58 (21.2%)	273 (54.6%)

*based on AKUADS cut off value of 19

AKUADS: Aga Khan University Anxiety and Depression Scale.

DISCUSSION:

The operationalization of anxiety differed between studies, with some defining it as a relatively stable characteristic and an individual's general proneness to anxiety against the ability of being optimistic, or as worries or concerns about health of the baby [5]. Other researchers defined anxiety as pregnancy-specific with particular feelings of panic or fear about the pregnancy. In two of the four studies assessment was performed just once with three studies assessing anxiety after a minimum 16 weeks of gestation [6]. Bhagwanani et al. undertook initial assessments of anxiety across a wide range of gestation from 8 to 28 weeks, although it is unlikely that anxiety is a stable construct during this time. Two studies used the STAI which clearly differentiates between state and trait anxiety, while pregnancy-specific anxiety was explicitly assessed through the Pregnancy-Specific Anxiety Scale and pregnancy-specific items from the PSEI in full scale [7].

The most common stressors were concern about husband's worries and stressor and concern about feeling unwell during pregnancy [8]. In this study, the frequency of anxiety and depression among pregnant women is much higher than 19.7% reported in low-and lower-middle-income countries and 18-39% reported from Pakistan. This unexpected variation could be partially explained by the fact that the catchment area of our hospital includes the tribal and settled area of Khyber Pakhtunkhwa with high burden of internally displaced persons [9]. This area has been adversely affected by worst terrorism which can significantly affect the mental health of the people. Another explanation could be the use of self-reported symptom measures instead of diagnostic assessment or psychiatric interview resulting in higher prevalence of anxiety and depression in pregnancy. Similarly, many somatic symptoms of normal pregnancy like dyspepsia, body aches, sleep and appetite change can be wrongly attributed to psychiatric manifestations in pregnancy, leading to false positive results [10].

CONCLUSION:

It is concluded that the level of stress become increases among pregnant women. Further studies are needed to establish the cause and effect between stress and anxiety/depression in antenatal women. Moreover, community-based studies are needed for

the study of local stressors in antenatal women with emphasis on the use of psychiatric interview as additional diagnostic tool for estimating the true prevalence of anxiety and depression in antenatal women.

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