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Research Article

### ANALYSIS OF RISK FACTORS OF ANXIETY AND DEPRESSION DURING PREGNANCY

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#### Abstract:

**Introduction:** Anxiety is a state of confusion or disturbance, but depression is persistent feeling of sadness & worthlessness which affect the person's behavior, creativity, satisfaction, reduce their physical activity & sense of well-being.

**Objective of the study:** The basic aim of the study is to analyze the risk factors of anxiety and depression in pregnancy among local female population of Pakistan.

**Methodology of the study:** This study was conducted at Mayo hospital, Lahore during 2018. The data were collected from 100 pregnant women and non-probability purposive sampling technique was used for sample selection. Women aged >18 to < 40, women their labor had not started, Consent to participate in the research and all type of gravidas & Para were included in this study. Data was collected through A Self Structure Questionnaire composed of socio-demographic & obstetric baseline characteristics. Hospital Anxiety Depression Scale (HADS) was used to find out the level of depression & anxiety.

**Results:** Results of the study include physical characteristics, demographics, prevalence of Depression & Anxiety and associated Risk factors. In this study Mean age of participants was  $25.93 \pm 4.06$ . Mean Height  $5.18 \pm 0.46$  and Mean Weight  $65.84 \pm 10.25$  of the study participants. BMI (body mass index) of patients was also calculated, Mean BMI was  $25.99 \pm 3.52$ . Patient's Demographics includes occupation, education & socioeconomic status, which were described and their graphically presentation. Prevalence of anxiety was 33.21% and depression was 30.46%. In this study, Mean Anxiety score was  $7.23 \pm 3.27$  and Mean Depression score was  $7.35 \pm 2.83$ . Mean score of anxiety & depression indicate mild to moderate level of antenatal anxiety & depression.

**Conclusion:** Study concluded that one-third of pregnant women were reported with anxiety and depression. Findings of current study show that family crises were strongly associated with antenatal anxiety & depression while gender discrimination, history of miscarriage and fear of C-section were the other causes.

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**INTRODUCTION:**

Anxiety is a state of confusion or disturbance, but depression is persistent feeling of sadness & worthlessness which affect the person's behavior, creativity, satisfaction, reduce their physical activity & sense of well-being. Pregnancy is natural event during which many biological and psychosocial changes occur. Pregnancy is period of contentment & joyment; but in some women it can be a distressing event. Antenatal A&D is the major health problem all over the world and its prevalence varies from 10-20% in developing countries.(1) Antenatal A&D is the most prevailing psychiatric disorder and it is consider as an important subject of public health due to many reasons. Depression during pregnancy is major risk factor for post-natal depression and it can also cause adverse Maternal & Fetal outcomes.(2) WHO estimates that depressive disorder will be the second leading cause of global disease burden by the year 2020. Women of reproductive age (14-49 years) are at high risk of having depressive disorder than that of men in same age range(3) In every woman's life pregnancy is a critical period in which she experiences several mental, physical, psychological, hormonal changes and due to these changes she suffer from depression. Symptoms of antenatal depression include; depressed mood, loss of interest, loss of concentration and feeling of low self-esteem. These symptoms are same as depression in general population. Antenatal depression is the predictor of postpartum depression and PPD leads to serious consequences for women's life and cause behavioral disorders, poor interaction and physical impairment in child's life. (4)

**Objective of the study**

The basic aim of the study is to analyze the risk factors of anxiety and depression in pregnancy among local female population of Pakistan.

**METHODOLOGY OF THE STUDY:**

This study was conducted at Mayo hospital, Lahore during 2018. The data were collected from 100 pregnant women and non-probability purposive sampling technique was used for sample selection. Women aged >18 to < 40, women their labor had not started, Consent to participate in the research and all type of gravidas & Para were included in this study while Females > 40 of age, who used psychiatric drugs during pregnancy, women with known psychiatric or neurological disorders, women having pregnancy related complications (placenta previa, preeclampsia, fetal distress etc.) all were excluded. Data was collected through A Self Structure Questionnaire composed of socio-demographic & obstetric baseline characteristics. Hospital Anxiety Depression Scale (HADS) was used to find out the level of depression & anxiety.

**STATISTICAL ANALYSIS:**

Data was analyzed through SPSS 21 and results were generated. Mean, standard deviations and percentages of all variables were calculated. Risk factors were evaluated by Odd Ratio (OR) with relevant 95% confidence interval. Results were explained in detail with the help of graphs and tables.

**RESULTS:**

Results of the study include physical characteristics, demographics, prevalence of Depression & Anxiety and associated Risk factors. In this study Mean age of participants was  $25.93 \pm 4.06$ . Mean Height  $5.18 \pm 0.46$  and Mean Weight  $65.84 \pm 10.25$  of the study participants. BMI (body mass index) of patients was also calculated, Mean BMI was  $25.99 \pm 3.52$ . Patient's Demographics includes occupation, education & socioeconomic status, which were described and their graphically presentation. Prevalence of anxiety was 33.21% and depression was 30.46%. In this study, Mean Anxiety score was  $7.23 \pm 3.27$  and Mean Depression score was  $7.35 \pm 2.83$ . Mean score of anxiety & depression indicate mild to moderate level of antenatal anxiety & depression.

Table 01: shows Mean  $\pm$  S.D of physical characteristics of patients.

		Frequency	Percentage	Mean $\pm$ S.D
Anxiety	<b>Control</b>	388	66.8	7.23 $\pm$ 3.27
	<b>Case</b>	193	33.21	
Depression	<b>Control</b>	404	69.5	7.35 $\pm$ 2.83
	<b>Case</b>	177	30.46	

Table 2: presents Level of Anxiety &amp; Depression

Anxiety Present				OR(95% CI)
		Control	Case	
Fear of C-Section	NO	310	140	1.50
YES		78	53	
Fear of Baby Girl	NO	380	183	2.59
YES		8	10	
History of miscarriage	NO	330	147	1.78
YES		58	46	
Family crises last few months	NO	344	102	6.97
YES		44	91	
Moral support from spouse	NO	7	44	0.62
YES		381	194	

Table 3: show risk factor estimates of Antenatal Anxiety by Odd Ratio with 95% confidence interval.

Depression Present				OR(95% CI)
		Control	Case	
Fear of C-Section	NO	326	124	1.78
YES		78	53	
Fear of Baby Girl	NO	397	166	3.78
YES		7	11	
History of miscarriage	NO	348	129	2.31
YES		56	48	
Family crises last few months	NO	350	96	5.46
YES		54	81	
Moral support from spouse	NO	9	42	0.073
YES		395	135	

**DISCUSSION:**

Current study highlights the frequency of Anxiety & Depression during pregnancy, level of antenatal anxiety & depression and its associated risk factors. Results of current study show that by comparing two groups (one is case and other one is control group) anxiety was reported in 193 cases while 177 cases were reported with antenatal depression out of 581 participants. Study found frequency of antenatal anxiety was about (33.21%) & depression was (30.46%) by using HADS. Ahmad Waqas et al, (2015) were conducting cross-sectional study and found prevalence of antenatal depression (31%) & anxiety (49%).(3) Current findings show prevalence of antenatal anxiety was same to previously conducted

studies in Pakistan but prevalence of antenatal depression was higher.

In current study (n=193) having anxiety and (n=177) having depression whereas, in previous study, Mechtilda Rwakarema et al,(2015) conducted a cross-sectional study were found 33.8% (n=134) prevalence of antenatal depression by using EPDS. Sawyer et al, conducted a systematic review studies were found mean prevalence of antenatal depression of about (11.3%) in 8 African countries.(5)

Niloufer S. Ali et al, (2012) were conducted hospital-based cross-sectional study to determine frequency of antenatal depression by using HADS. Results of their study shows (16.8%) having depression, (20.4%) having anxiety and (32.9%) participants suffering

from both anxiety & depression. Hamirani et al, from Karachi were found antenatal depression (34.6%) by using EPDS. On the same participants by using ICD-10 diagnostic criteria Niaz et al were found low prevalence of anxiety & depression as compare to HADS.(10) Results of current study were much higher than previous study. Current study was case-control study with larger sample size. Lack of family support, gender based violence and history of miscarriage was might be the reasons for higher prevalence of antenatal depression & anxiety.

In current study mean anxiety score was  $(7.23 \pm 3.27)$  and Mean Depression score was  $(7.35 \pm 2.83)$ . While previous study, Rahila Ghaffar et al, (2017) conducting a survey reported that mean anxiety score was  $(10.08 \pm 2.52)$  and mean Depression score was  $(9.51 \pm 2.55)$  which was very high due to increasing age of mothers, lack of formal maternal education and unemployment. Unemployment women have at higher risk of depression during pregnancy because house wives having more time to think about their pregnancy as compare to working women.(1) There is several risk factors of antenatal depression & anxiety, current study mainly focus on Gender discrimination, History of miscarriage, Fear of C-Section, Family crises and social support. In current study OR shows that family crises were the major risk factor of antenatal anxiety & depression and after that gender discrimination were the leading cause because of lack of in-laws support, poor involvement in family matters and family preferences for baby boy. Previous study, Niloufer S. Ali et al, (2012) reported that Family problems due to lack of involvement in decision making, lack of husband support, poor relation with in-laws and gender discrimination were major risk factor of antenatal anxiety & depression.(10)

### CONCLUSION:

Study concluded that one-third of pregnant women were reported with anxiety and depression. Findings of current study show that family crises were strongly associated with antenatal anxiety & depression while gender discrimination, history of miscarriage and fear of C-section were the other causes.

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