ORIGINAL ARTICLE

Prevalence & Factors Associated With Anxiety Among Pregnant Women Attending Antenatal Clinic Of A HOSPITAL

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Abstract

Introduction: *Anxiety during pregnancy is an important predictor of postpartum anxiety. Pregnancy is a time of increased vulnerability for the development of anxiety. Maternal anxiety may also have an impact on the developing fetus. The current study aims to estimate the prevalence and associated factors of anxiety during pregnancy.*

Material And Method: *A descriptive cross-sectional study was conducted among 95 pregnant women during the antenatal period. A purposive sampling technique was used and data collection was done from November 15, 2019, to December 14, 2019. Ethical permission was obtained from the concerned authority. All pregnant women were interviewed during their antenatal visit and a semi-structured questionnaire was used to collect the data. Descriptive and inferential statistics were used to analyze and interpretation of the findings.*

Results: *The prevalence of anxiety was 32.6%. Among them, 18.9% had borderline anxiety and 13.7% had abnormal anxiety. More than one-fifth (21.1%) of pregnant women were worried about the sex of the baby. Although, 68.4% of them had occasionally felt tense, and 75.8% had worried thoughts from time to time. Anxiety during pregnancy was significantly associated with gravida, history of abortion, maternal desire regarding the pregnancy and worry about the sex of a fetus (p<0.05).*

Conclusion: *The status of anxiety was quite common during pregnancy and its occurrence is associated with the pregnant woman's gravida, history of abortion, intention of pregnancy and worried about the sex of a fetus. Antenatal screening for anxiety should be carried out early from the antenatal clinics for improving the psychological well-being of women.*

Keywords: Antenatal clinic; anxiety; associated factors; pregnant women

INTRODUCTION

Pregnancy is not only a period of great joy but also one of the great stresses to women both physically and mentally. Even in healthy women, pregnancy may give rise to anxiety because of anticipated uncertainty associated with it. Anxiety in pregnancy is risk factors for adverse outcomes for both mother and child. Beyond Apart from this, women with anxiety symptoms in pregnancy are more likely to have exacerbation of symptoms during the postpartum period.[1]

A study conducted in Nepal reported that nearly half (46.4%) of pregnant women were at risk of anxiety. The high risk of anxiety was significantly associated with age, and type of family.[2] Anxiety during pregnancy is a major public health problem.[3] Globally maternal mental health problems are considered a major public health challenge.[4] Study in Nepal reported 21.3% of pregnant women had anxiety, but low education level and a history of unplanned pregnancy were independently associated with anxiety.[5]

Pregnancy and the transition to parenthood have been directly linked to symptoms of anxiety. Anxiety during pregnancy is a matter of public health importance because the rate of anxiety is high during pregnancy and it is one of the strongest risk factor for postnatal depression. It leads to adverse maternal and fetal outcomes. Thus, anxiety during pregnancy makes a matter of great importance.[6]

The importance of mental health in pregnancy can be emphasized by the fact that even the best obstetric care cannot give a desirable outcome of the pregnancy if the mental health issues of the expectant mother are not addressed at the right time and in the right manner.[7]

Mental health problems in the antenatal period have received very less attention than in the postpartum. Furthermore, there is a tendency to focus on the physical health of maternal and fetal during pregnancy. Anxiety during pregnancy is rarely reported in Nepal. So, the aim of this study was to assess the prevalence and associated factors of anxiety during pregnancy.

MATERIAL AND METHOD

A descriptive cross-sectional design was used to assess the prevalence and associated factors of anxiety among pregnant women. The study was conducted in the antenatal OPD of Dhading district hospital. Non- probability purposive sampling technique was used and the sample size was calculated by using Cochran's Formula. Confidence limit (Z): the standard score corresponding to 95%, Confidence level: 1.96, allowable error (d) = 10% = 0.1, prevalence of anxiety was 45.3% during pregnancy.[5]
Estimated proportion of population (p):
$$\frac{45.3}{100} = 0.453$$
Q = 1-P = 1-0.453 = 0.547
Required sample size for infinite population
(n_0): $\frac{Z^2PQ}{d^2} = \frac{1.96^2 \times 0.453 \times 0.547}{0.1 \times 0.1} = 95.19$
Total sample size was 95

Data was collected from November 15, 2019, to December 14, 2019. Antenatal women were interviewed in antenatal clinic during their antenatal visit by semi-structured questionnaires. Hospital Anxiety and Depression Scale (HADS) was used as a tool for interviews.[8] It is a standard tool obtained from free online access. The original English version of HADS was translated into the Nepali version. The tool contained 7 questions related to assess anxiety. The total score of anxiety was 21, 0-7 score - no anxiety, 8-10 score - borderline anxiety, and 11-21 score- abnormal anxiety.[9] Finally, anxiety was categorized into two levels i.e. no anxiety and borderline to abnormal anxiety to identify the association of anxiety with selected socio-demographic and obstetric factors in two by two tables.

Ethical permission was obtained from concerned authority. Permission for data collection was obtained from the concerned authority. Purpose of the data collection was explained to all pregnant women before data collection. Informed written consent was taken from all the women prior to data collection. Both primi and multigravida women of all trimester, age above 20 to 30 years and willing to participate were included in the study.

Data was entered and analyzed using the Statistical Package for Social Science (SPSS) version 16. Data were presented in tables and analyzed by using a descriptive statistical method such as frequency, percentage, mean and standard deviation. Inferential statistics i.e. chi-square and Fisher's exact test were used to identify the association of anxiety with selected socio-demographic and obstetrics variables.

RESULT

The highest proportion (45.3%) of the respondents were less than equal to 25 years with mean age of 26.38 years and a standard deviation ± 3.526. More than half (53.7%) of them were from the urban areas. Almost all (94.7%) of the respondents could read and write, out of them, 47.8% had up to bachelor level and above education. All the respondents' husband (100%) was educated. Regarding the occupation of their husbands' almost all (97.9%) were service holder. Near to the highest proportion (40.0%) of respondents were having a family income of NRS 15,001 to 20,000 per month.

Regarding the obstetric characteristics of respondents, more than half (58.9%) of respondents were in the third trimester. The highest proportions (41.1%) of respondents were of the second gravida. Nearly half (49.5%) of respondents were of para one and least (22.1%) had a history of abortion. Third-fourth (75.8%) of respondents had planned pregnancy. As most (88.4%) of respondents had no complication at present pregnancy. Similarly, 21.1% of them were worried about the sex of the baby (Table 1).

Table: 1 Obstetric Characteristics of the Respondents (n=95)

Characteristics	Frequency	Percentage
Trimester		
First trimester	10	10.5
Second trimester	29	30.5
Third trimester	56	58.9
Gravida		
Gravida 1	37	38.9
Gravida 2	39	41.1
Gravida 3	14	14.7
Gravida 4	5	5.3
Para		
Para 0	42	44.2
Para 1	47	49.5
Para 2	6	6.3
History of abortion		
Yes	21	22.1
No	74	77.9
Intention of pregnancy		
Planned	72	75.8
Unplanned	23	24.2
Complication of present pregnancy		
Yes	11	11.6
No	84	88.4
Complication of past pregnancy (n=53)		
Yes	6	11.3
No	47	88.7
Worry about sex of baby		
Yes	20	21.1
No	75	78.9

Regarding the status of anxiety during pregnancy, 68.4% of respondents had occasionally felt tense. More than half (56.8%) of them had a little frightened feeling as if something awful is about to happen. Like as 75.8% of them were having worrying thoughts from time to time, but not too often. Near the highest proportion (38.9%) of respondents not often could sit at ease and feel relaxed. Most (83.2%) of respondents had occasionally frightening feelings. The prevalence of anxiety was 32.6% but among them, 18.9% of them had borderline anxiety and 13.7% had abnormal anxiety (Table 2).

There was significant association of antenatal anxiety with gravida, history of abortion, maternal desire regarding the pregnancy and worry about the sex of the child (*p*-value <0.05) (Table 3).

Table: 2 Status of Anxiety during Pregnancy among Respondents

Characteristics	Frequency	Percentage
Feel tense or 'wound up'		
Not at all	19	20.0
From time to time, occasionally	65	68.4
A lot of time	3	3.2
Most of the time	8	8.4
Frightened feeling as if something awful is about to happen		
Not at all	18	18.9
A little, but it doesn't worry me	54	56.8
Yes, but not too badly	19	20.0
Very definitely and quite badly	4	4.2
Worrying thoughts go through your mind		
Only occasionally	18	18.9
From time to time, but not too often	72	75.8
A lot of the time	3	3.2
A great deal of the time	2	2.1
Can sit at ease and feel relaxed		
Definitely	20	21.1
Usually	31	32.6
Not often	37	38.9
Not at all	7	7.4
Frightened feeling like "butterflies" in the stomach		
Not at all	9	9.5
Occasionally	79	83.2
Quite often	5	5.3
Very often	2	2.1
Feel restless as have to be on the move		
Not at all	28	29.5
Not very much	55	57.9
Quite a lot	9	9.5
Very much indeed	3	3.2
Sudden feelings of panic		
Not at all	23	24.2
Not very often	55	57.9
Quite often	16	16.8
Very often indeed	1	1.1
Level of Anxiety		
No anxiety (0-7)	64	67.4
Borderline anxiety (8-10)	18	18.9
Abnormal anxiety (11-21)	13	13.7

Table:3 Association of Anxiety with Socio-demographic and Obstetric Factors

Characteristics	Anxiety				Chi-square value	*p* value
	Normal		**Borderline to abnormal**			
	f	**%**	**f**	**%**		
Association of Anxiety with Socio-demographic Characteristics						
Age						
≤26	41	70.	17	29.3	0.747	0.387
>26	23	62.	14	37.8		
Husband's educational status						
Up to secondary level	41	64.	23	35.9	0.975	0.323
Above secondary level	23	74.	8	25.8		
Women's occupation						
Home manager and service holder	54	69.	24	30.8	0.688	0.407
Agriculture, business and others	10	58.	7	41.2		
Family income (NRs)						
<25,000	42	65.	22	34.4	0.271	0.603
>25,000	22	71.	9	29.0		
Association of Anxiety with Obstetric Characteristics						
Trimester						
First and second trimester	26	66.	13	33.3	0.015	0.903
Third trimester	38	67.	18	32.2		
Gravida						
Gravida 1	30	81.	7	18.9	5.184	0.023
Others (G2,G3,G4)	34	58.	24	41.4		
Para						
Para 0	32	76.	10	23.8	2.665	0.103
Para 1 and para 2	32	60.	21	39.6		
History of abortion						
Yes	5	23.	16	76.2	23.269	0.001
No	59	62.	15	15.8		
Maternal desire regarding						
Planned	54	75	18	25	7.879	0.005
Unplanned	10	43.	13	56.5		
Complication of present pregnancy						
Yes	5	45.	6	54.5	2.718	0.099
No	59	70.	25	29.8		
Complication of past pregnancy						
Yes	2	33.	4	66.7	-	0.200#
No	30	63.	17	36.2		
Worry about sex of child						
Yes	9	45.	11	55.0	5.766	0.016
No	55	73.	20	26.7		

Significance at P < 0.05 level; # Fisher's exact test

DISCUSSION:

This study showed 18.9% of pregnant had borderline anxiety and 13.7% had abnormal anxiety. So, the overall prevalence of anxiety during pregnancy was 32.6%. A similar study conducted in Nepal indicated that 21.3% had anxiety during pregnancy. This result of anxiety is contrasted with the present study.[5] A study of Mangalore, India reported that 8% of antenatal women had severe level of anxiety, 22% had moderate and 70% had mild level of anxiety. Regarding the level of severity present study is inconsistent with the report of India, it showed 8% of antenatal women had severe level of anxiety but the finding of present study is more similar regarding borderline anxiety with the study of India. [10]

Regarding the associated factors, the present study revealed that there was significant association of antenatal anxiety with gravida, history of abortion, maternal desire regarding the pregnancy and worry about the sex of the child (p-<0.05). A similar study conducted in Nepal revealed that pregnant women with low education levels, source of family income, and history of unplanned pregnancy were independently associated with anxiety.[5] This finding is somehow consistent with a present study of anxiety.

Another study conducted in Brazil reported that anxiety was present in 26.8% of the pregnant women. Occupation (p=0.04), complications in previous pregnancies (p=0.00), history of miscarriage, and risk of preterm birth (p=0.05), maternal desire regarding the pregnancy (p=0.01), number of abortions (p=0.02), number of cigarettes smoked daily (p=0.00) and drug use (p=0.01) were statistically associated with the occurrence of anxiety during pregnancy. The present study illustrated that the prevalence of anxiety was 32.6% during pregnancy. So, this finding is similar with the report of Brazil.[11] Although, some findings of that study regarding to associate factors are similar with present study. The present study revealed that there was significant association of antenatal anxiety with history of abortion, and maternal desire regarding the pregnancy (p-<0.05).

CONCLUSION:

It is concluded that anxiety is a common mental disorder among pregnant women. Nearly one-fifth women had a history of abortion and were worried about the sex of the baby. Antenatal anxiety is associated with gravida, history of abortion, maternal desire regarding the pregnancy, and worry about the sex of a child. Maternal mental health awareness program should be introduced to pregnant women in antenatal clinics for improving the psychological well-being of women.

CONFLICT OF INTEREST: None

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