

Original Article**Anxiety on Primigravid Women Attending Antenatal Care Out Patient Department**

**Swechchha Pokharel^{*1}, Anish karki², Jashmita Karki¹, Smita Bhattarai¹, Manisha Chaudhary¹,
Asmita Chaudhary¹**

¹ Department of Nursing, Nobel Medical College Teaching Hospital, Biratnagar, Nepal

² Department of Forensic Medicine, Birat Medical College and Teaching Hospital, Biratnagar Nepal

DOI: <https://doi.org/10.3126/jonmc.v15i1.96251>

Abstract**Background**

Pregnancy is a transitory period in a woman's life event characterized by physiological, cognitive, emotional, and social changes. So, it is natural that pregnant women are often concerned about the future. Moreover, the study aims to assess the prevalence of anxiety on primigravid women attending antenatal care Out Patient department and its association with selected demographic variables.

Materials and Methods

A cross-sectional study was conducted at the antenatal care outpatient department of Nobel medical college teaching hospital, Biratnagar from March 2025 to November 2025. A total of 252 primigravid women were selected through convenience sampling. Data were collected via face-to-face interview using Pregnancy-Related Anxiety Questionnaires Revised 2. For descriptive statistic (mean, standard deviation range) and for inferential statistic (Chi-square) were used for analysis.

Results

Majority (79.4%) of the participants were of age less than or equal to 25 years. Majority (83.7%) of the participants were in a gestational period of 24 weeks or more. Majorities (72.6%) of the participants were in low risk of developing anxiety and there was no any association of anxiety with its socio-demographic variables.

Conclusion

The finding showed that a majority of participants were at low risk of developing anxiety during pregnancy. There was no any association of anxiety with its socio-demographic variables like age, and wife education (husband and wife), occupation (husband and wife), intension of pregnancy, family support, monthly income.

Keywords: *Anxiety, Pregnancy, Prenatal care, Outpatients*

	©Authors retain copyright and grant the journal right of first publication. Licensed under Creative Commons Attribution License CC - BY 4.0 which permits others to use, distribute and reproduce in any medium, provided the original work is properly cited.	*Corresponding Author: Swechchha Pokharel Lecturer Email: swechchhabrt1@gmail.com ORCID: https://orcid.org/0009-0001-1732-2095
---	---	---

Citation

Pokharel S, karki A, Karki J, Bhattarai S, Chaudhary M, Chaudhary A, Anxiety on Primigravid Women Attending Antenatal Care Out Patient Door, JoNMC. 15:1 (2026) 68-72. DOI: <https://doi.org/10.3126/jonmc.v15i1.96251>.



Introduction

Pregnancy is a transitory period involving physiological, cognitive, emotional, and social changes, often causing concerns about the future [1, 2]. Pregnancy related anxiety (PRA) is a dread, worry, and interrupting sense of calm related to the health of the woman, the baby, the pregnancy, and the delivery. Anxiety during pregnancy is a common maternal health problem and has been associated with adverse outcomes such as preterm birth, miscarriage, hypertension, low birth weight and developmental problem in children [3, 4].

Studies have shown varying prevalence rate of antenatal anxiety worldwide ranging from 15.2% to 70% [4-6] including 18.26% in Nepal [7]. Factors such as hypertension, lack of prenatal care, educational status, low-income levels [8-10], substance use history, family history of mental illness [3], perceived stress, active depression, number of people living in the home, young age, poor social support, intimate partner violence [6] contribute to anxiety during pregnancy. Despite its significance, antenatal mental health receives less attention, and anxiety on pregnant women remains underreported in Nepal.

Therefore, this study aims to assess the prevalence of anxiety and its association with selected demographic variables on primigravid women attending Antenatal care Out Patient Department (OPD).

Material and Methods

A cross sectional study was conducted in the antenatal care OPD (Out Patient Department) of Nobel medical college and teaching Hospital, Biratnagar from March 2025 to November 2025. An ethical approval was obtained from the Institutional Review Committee of Nobel medical College and Teaching Hospital with a reference number of 09/2025. Verbal and written consent were obtained from all the participants before data collection. Primigravid women attending antenatal OPD and willing to participate were included whereas known cases of mentally ill primigravid women were excluded from this study. The sample size was calculated using the Cochran's formula Z^2pq/d^2 where $Z=1.96$ at 95% confidence interval, $p=18.26\%=0.1826$ [7], $q=1-p=0.8174$, and $d=0.05$ and adding 10%

non-response rate, the required sample size was determined to be 252. Participants were selected using convenience sampling method. Data were collected through face-to-face interview using Pregnancy-Related Anxiety Questionnaire Revised (PRAQ-R₂) [11]. The data were entered into the Statistical Package for Social Science Software (SPSS) version 27 for descriptive statistics, mean, range, standard deviation, frequency and percentage were calculated and for inferential statistics, chi-square test was used.

Results

Table 1a: Sociodemographic Characteristics of Participants (n=252)

Variables	Frequency	Percent (%)
Age		
≤25	200	79.4
>25	52	20.6
Mean±SD=23.15±3.864 (16-41)		
Religion		
Hindu	233	92.5
Others	19	7.5
Educational status of participants		
Informal	7	2.8
Formal	245	97.2
Educational status of her husband		
Informal	6	2.4
Formal	246	97.6
Occupation of participant		
Unemployed	225	89.3
Employed	27	10.7
Occupation of her husband		
Unemployed	3	1.2
Employed	249	98.8
Family Monthly income		
≤Rs.25000	98	38.9
>Rs.25000	154	61.1

(Others; christian, muslim, buddhist, kirat)

The mean age of participants was 23.15±3.864 with range of 16 to 41 years. Out of 252 participants, majority (79.4%) of the participants were of age less than or equal to 25 years. Most (92.5%) of the participant belonged to the Hindu religion. Regarding education level, most of the participants (97.2%) and husband (97.6%) had formal education. With regard to the occupation of wife, majority of the participants (89.3%) were unemployed and almost all husband (98.8%) were employed. More than half of the family (61.1%) had monthly income of more than Rs.25000.



Table 1b: Sociodemographic Characteristics of Participants n=252

Variables	Frequency	Percent(%)
Nature of pregnancy		
Planned	152	60.3
Unplanned	100	39.7
Complications in Pregnancy		
Yes	111	44
No	141	56
Worry about gender of baby		
Yes	6	2.4
No	246	97.6
Duration of marriage (years)		
<2	154	61.1
≥2	98	38.9
Mean ±SD=1.39±.488		
Types of family		
Nuclear	31	12.3
Joint	221	87.7
Home		
Own	236	93.7
Rented	16	6.3
History of mental illness		
Yes	14	5.6
No	238	94.4
Social support		
Poor	5	2
Moderate to strong	247	98
Present illness		
Yes	80	31.7
No	172	68.3

Almost (97.6%) of the participants were not worry about the gender of the baby. Likewise, majority of the participants belongs to joint family (87.7%) and almost all of the participants (98%) had moderate to strong family support. Moreover, most of the participants resided in their own home (93.7%). Regarding history of mental illness, majority of participants (94.4%) were mentally healthy. Likewise, more than half of the participants (61.1%) had less than 2years of experience in marriage. Regarding nature of pregnancy, more than half (60.3%) had planned pregnancy. And more than half of pregnancy (56%) was undergone without any complication and more than half (68.3%) of the participants had no any illness during pregnancy.

Table 2: Obstetric history of participant n=252

Variable	Frequency	Percent (%)
Period of Gestation(weeks)		
≤12	12	5.6
12-24	27	10.7
≥24	211	83.7

Majority of the participants (83.7%) had a gestational period of 24 weeks or more.

Table 3: Anxiety of Participant n=252

Variables	Frequency	Percent(%)
High risk (≥13)	69	27.4
Low risk (<13)	183	72.6

Majority (72.6%) of the participants were in low risk of developing anxiety.

Table 4: Association between Anxiety and its Socio-demographic variables n=252

Variables	Level of anxiety		p value
	Low risk (%)	High risk (%)	
Age			
<25	141(70.5)	59(29.5)	0.139**
≥25	42(80.8)	10(19.2)	
Education of participants			
Informal	4(57.1)	3(42.9)	0.396*
Formal	179(73.1)	66(26.9)	
Occupation of participants			
Unemployed	163(72.4)	62(27.6)	0.858**
Employed	20(74.1)	7(25.9)	
Education of husband			
Informal	4(66.7)	2(33.3)	0.523*
Formal	179(72.6)	67(27.2)	
Occupation of husband			
Unemployed	2(50)	1(50)	0.303*
Employed	181(73)	68(27)	
Intention of pregnancy			
Planned	112(73.7)	40(26.3)	0.667**
Unplanned	71(71)	29(29)	
Family support			
Poor	2(40)	3(60)	0.128*
Moderate to strong	181(73.3)	66(26.7)	
Monthly Income			
≤25000	70(71.4)	28(28.6)	0.735**
>25000	113(73.4)	41(26.6)	

*Fisher's Exact **Pearson chi-square

There was no any association of anxiety with its socio-demographic variables like age, and wife education (husband and wife), occupation (husband and wife), intension of pregnancy, family support, monthly income.

Discussion

This is a cross sectional study to assess anxiety on primigravid women and its associated factors. Only few studies were conducted to assess the anxiety on primigravid women in Nepal using PRAQR-2 [11]. The finding of the study revealed that majority of participants was at low risk of developing anxiety during pregnancy. There was no association with its socio demographic variables.

In the current study among 252 women, 72.6% were at low risk of getting anxiety which was



contradict with the finding of the study conducted in Uganda and Dharan revealed that 13% [10] and 18.26% [7] of the pregnant women had anxiety. This differences might be due to study sample, only primigravid women were included in present study.

This study was inconsistent with the study conducted in Turkey and Tabriz found association of anxiety with age, income, unplanned pregnancy and employment status might be due to difference in sample size and cultural context [12,13]. This study contradicts with the study conducted in Southwest Ethiopia showed that young age, low income, poor social support and unwanted pregnancy were associated with anxiety [3]. This might be due to geographical variation and sample population. This study was unrelated with the study conducted in Addis Ababa, Ethiopia revealed that known medical illness was associated with anxiety [6].

The strength of the study was that the data were collected through face to face interview using standard tool which was Pregnancy related anxiety questionnaire revised 2 and there was very few research of this kind has yet been done in Nepal using such tool. As this study was conducted in a single antenatal clinic that limit the generalization of the findings to the other setting. The absence of association in the present study suggested that anxiety can affect primigravid women regardless of their sociodemographic variables. Qualitative study can be helpful to explore deeper emotional and psychological aspects of pregnancy related anxiety Therefore, routine antenatal screening should be integrated into antenatal care services. Further studies with multicenter setting are recommended with the use of different tool.

Conclusion

The finding showed that a majority of participants were at low risk of developing anxiety. There was no statistically significant association between anxiety and the sociodemographic variables of the participants.

Recommendation: The finding suggests the need for early identification and management of anxiety during routine antenatal care. Further studies with multicenter setting is recommended with the use of different tool. Qualitative study

can be helpful to explore deeper emotional and psychological aspects of pregnancy related anxiety.

Acknowledgement

I would like to thank participants for their cooperation, openness and trust throughout the data collection process. Finally, I acknowledge all those who directly or indirectly contributed to the successful completion of this research.

Conflict of interest: The authors report no conflict of interest in this work.

References

- [1] Guardino C.M, Dunkel Schetter C, Coping during pregnancy: a systematic review and recommendations, *Health Psychol*.8:1(2014) 70–94. DOI:10.1080/17437199.2012.752659.
- [2] Mudra S, Gobel A, Barthel D, Hecher K, Schulte-Markwort M, Goletzke J, et al., Psychometric properties of the German version of the pregnancy-related anxiety questionnaire-revised 2 (PRAQ-R2) in the third trimester of pregnancy, *BMC Pregnancy and Childbirth*. 19:1(2019)242. DOI:10.1186/s12884-019-2368-6.
- [3] Tarafa H, Alemayehu Y, Nigussie M, Factors associated with pregnancy-related anxiety among pregnant women attending antenatal care follow-up at Bedelle general hospital and Metu Karl comprehensive specialized hospital, Southwest Ethiopia, *Front Psychiatry*.13 (2022) 938277. DOI:10.3389/fpsy.2022.938277
- [4] Abegaz MY, Muche HA, Aynalem GL, Determinants of Pregnancy-Related Anxiety among Women Attending Antenatal Checkup at Public Health Institutions in Debre Markos Town, Ethiopia, *Depress Res Treat* .8(2022)1–10. DOI:10.1155/2022/6935609
- [5] Nath A, Venkatesh S, Balan S, Metgud CS, Krishna M, Murthy GVS, The prevalence and determinants of pregnancy-related anxiety amongst pregnant women at less than 24 weeks of pregnancy in Bangalore, Southern India, *Int J Womens Health*. 11(2019) 241–248. DOI:10.2147/IJWH.S193306
- [6] Haile TT, Kebede AA, Gessesse DN, Tsega NT, Aklil MB, Temesgan WZ, et al. ,Anxiety and associated factors in Northwest Ethiopian pregnant women: a broad public health concern, *Front Public Health*.11(2024)1300229. DOI:10.3389/fpubh.2023.1300229
- [7] Rimal SP, Thapa K, Shrestha R, Anxiety among Pregnant Women Attending Obstetrics Unit of a Tertiary Care Centre during the COVID-19 Pandemic: A Descriptive Cross-sectional Study, *J Nepal Med Assoc*. 60;251(2022)621–624. DOI:10.31729/jnma.7259
- [8] Wall V, Premji SS, Letourneau N, McCaffrey G, Nyanza EC. Factors associated with pregnancy-related anxiety in Tanzanian women: a cross sectional study, *BMJ Open*. 8:6(2018)020056. DOI:10.1136/bmjopen-2017-020056



- [9] Gouda Nasr ES, Mohamed Mohamed Elsherbeny E, Gamal Abd Elnaser Ahmed M, Sarhan Eldesokey Genedy A, Anxiety Level among Primigravida and Multigravida Regarding Minor Discomforts (Comparative Study), Egypt. J. Health Care. 10:2(2019)335–46. DOI:10.21608/ejhc.2019.144381
- [10] Nabwire M, Nakimuli A, Nakasujja N, Migisha R, Kiggundu C, Prevalence and Factors Associated with Anxiety Disorders Among Pregnant Women at Mulago National Referral Hospital, Uganda, Int J Womens Health.16:237(2024)47. DOI: 10.2147/IJWH.S440361
- [11] Huizink AC, Delforterie MJ, Scheinin NM, Tolvanen M, Karlsson L, Karlsson H. Adaption of pregnancy anxiety questionnaire-revised for all pregnant women regardless of parity: PRAQ-R2, Arch Womens Ment Health. 2016 Feb;19:1(2016)125–32.DOI:10.1007/s00737-015-0531-2.
- [12] Yesilcinar İ, Acavut G, Guvenç G, Anxiety during the pregnancy and affecting factors: a cross-sectional study, Arch Gynecol Obstet.307:1(2022)301–9. DOI:10.1007/s00404-022-06590-5
- [13] Mahini E, Hakimi S, Shahrokhi H, Salahi B, Baniadam KO, Ranjbar F, Evaluation of factors related to maternal anxiety during pregnancy among women referred to Tabriz primary care centers, BMC Psychiatry. 23:1(2023)329. DOI:10.1186/s12888-023-04823-8.

