Research Article

Antenatal Depression and Associated Risk Factors Among Pregnant Women Attending Tertiary Care Hospital, Sikkim

Ms. Manita sharma[1], Ms. Prerna Karki[2], Ms. Binita Khati[3*]

[1]M.Sc. Nursing, Dept. Mental Health Nursing, Sikkim Manipal College of Nursing, Sikkim Manipal Institute of Medical Sciences, Sikkim Manipal University, Sikkim-737102
[2]Associate Professor, Dept. Mental Health Nursing, Sikkim Manipal College of Nursing, Sikkim Manipal Institute of Medical Sciences, Sikkim Manipal University, -Sikkim-737102
[3*]Professor, Dept. OBG Nursing, Sikkim Manipal College of Nursing, , Sikkim Manipal Institute of Medical Sciences, Sikkim Manipal University, Sikkim-737102

Abstract

Introduction: Pregnant women attending Antenatal Care (ANC) frequently experience depression. This remains a working problem for the expecting mothers and negatively influences the health of both the mother and the foetus. In this background, the current study is aimed at analysing the prevalence of antenatal depression and the risk factors associated with it, among pregnant women.

Methods: A descriptive cross-sectional study was conducted among 289 women, who regularly visited OPD of the tertiary care hospital in Sikkim. The data was collected from the respondents who were selected through purposive sampling technique. Self-structured demographic profile and obstetric profile along with Edinburg Postnatal Depression Scale (EPDS) and self-structure associated risk factors tool was used to collect the data.

Results: The study outcomes revealed the prevalence of antenatal depression to be 32.2%. Further, a significant association was found among a few factors such as monthly income, family supportive system, occupation with that of antenatal depression among pregnant women and the association of antenatal depression with any complications during previous pregnancy and stressful life events with the p value of <0.005 level of significance.

Conclusion: Since antenatal depression was found to be associated with occupation, monthly income, Family support system, complication during previous pregnancy and stressful life events, there is a need to pay attention to depression aspect in maternal health. So, expecting mothers should be screened at regular intervals for depression, as a part of their routine ANCs.

Keywords: ANC, Pregnant women, antenatal depression. and OPD

INTRODUCTION

Pregnancy has been defined as a period of wellbeing during which the expecting mothers prepare themselves both physically as well as psychologically to give birth to a child and attain parenthood. In general, pregnancy period is touted to be the most enjoyable period in the life of a woman, though women tend to undergo depression, when trying to adapt to the psychological, physiological and social changes during pregnancy. [(1)]Either during pregnancy or within one year of delivery, 1 in 5 women tend to experience mental health deterioration. Out of the total women diagnosed with perinatal mental health conditions, 20% of the women get suicidal thoughts and harm themselves. According to the WHO (World Health Organization) report(2022), it is important to take mental health into account especially that of the pregnant women since it not only exposes the risk to the mother, but also the infant.[(2)]

According to the WHO, depression is identified as the third most burdening disease across the globe in 2004 while it reached the second position in 2020. The projections for 2030 estimate that depression may be the topmost cause behind the loss of healthy life. Women tend to develop depression, especially pregnant women have two-times high risks as a result of physical, psychological and hormonal changes.[(3)]

In India, about 57 million people (18%) are affected by depression. The Disability Adjusted Life Years (DALY), due to depression, accounted for 37% in 2013. By 2025, depression will be ranked as the third most disabling condition across the globe.[(4)]The northern, western and southern regions of India have a prevalence of 9.18% to 65.0% prenatal depression. Further, the prevalence rate of perinatal depression was found to be 8.8% at community health centres and 18.5% at medical facilities in India. [(5)]

According to the estimates from the World Health Organization (WHO) in 2017, more than 300 million people were under depression across the globe. The CDC reported that 5.5% of males worldwide experienced depression between 2013 and 2016 while 10.4% of women across the globe so, it can be understood that 1 in 10 pregnant women have depression. The risks of women, developing depression, is two times higher during pregnancy while

in recent years, this phenomenon has been investigated in a widespread manner among the pregnant women. This can in turn negatively impacts the health of both the mother and the unborn child[6]

Maternal well-being is characterized as a state in which the expecting mother undergoes a realization about her abilities and takes initiatives to overcome the common stresses experienced in life. This way, she makes a meaningful contribution to her family and the community. Maternal depression remains a key hindrance to achieve this goal since its impact is considered to be negligible in most of the maternal and child well-being programs across the globe. [7]

Therefore, the current study suggests that similar investigations must be carried out on a large sample size using a different tool.

The well-being of a woman during her perinatal period has a profound effect on her child's as well as the entire family's well-being. This has been commanded by the WHO guidelines titled *"guide for integration of perinatal mental health in maternal and child health services."* Untreated mental health disorder in a woman may increase the chance of medical ailments, emotional and behavioural problems in childhood, and poor birth outcomes like low birth weight. In addition to this, the chances are high for feeding and bonding difficulties for infants with their mothers. Mental health illness may or may not have been identified and treated in the past while it is of immense importance to diagnose the mental health of pregnant women since pregnancy worsens the mental health and expose the pregnant women to high risks, both physically and psychologically. It is pertinent to identify the women who have had a history of mental health illness since it potentially affects the mother as well as the unborn child. [8]

At most of the times, antenatal depression is not considered as a health issue at all and underdiagnosed, in developing countries like India. The maternal and child health (MCH) programs, followed in India, generally focus on increasing the maternal weight gain and the nutritional status of pregnant women rather than providing substantial importance to mental and emotional health during perinatal period. This phenomenon is attributed to the fact that the expecting mother's physical well-being is entirely concentrated rather than her mental health.[5]

Another important reason for conducting this study was to contribute to the body of knowledge of antenatal depression and identify the most associated risk factors of antenatal depression among pregnant women since this condition is neither well recognized, thoroughly studied, nor properly treated.

2.Method and materials

2.1. Study design: The analytical cross-sectional study was adopted.

2.2. Participants

Pregnant women attending the outpatient departments (Obstetric and Gynaecological) of Central Referral Hospital, Sikkim.

2.4. Sampling criteria

Inclusion criteria for the study comprised pregnant women aged 19 to 45 years, including both primi-gravida and multi-gravida, who were present during the data collection period, could understand either English, Hindi, or Nepali, and were willing to participate in the study.

2.4. Data collection

The interview was conducted using a close-ended structured questionnaire divided into three sections: a demographic performa, the Edinburgh Postnatal Depression Scale (EPDS), and a section on associated risk factors (a self-structured tool). The EPDS, a pre-validated questionnaire, was administered to assess antenatal depression. Edinburgh postnatal depression scale (EPDS) consists of 10 questions, identifying patient at risk for "perinatal" depression. The EPDS [33] (Edinburg postnatal depression scale) uses ten items with four-point Likert ratings to assess women's emotional experiences during the last seven days. The total score ranges from 0 to 30, with depression indicated by a score of ≥10. The EPDS is mostly used to assess depression in the postpartum period, but numerous studies have shown that it is a reliable and valid tool for identifying depression in the perinatal period as well. It is recommended that the EPDS cut-off score of ≥10 be used to evaluate pregnant women who exhibit depression symptoms. [9]

2.4. Statistical analysis:

The data were analysed using both descriptive and inferential statistical methods aligned with the study's objectives and hypotheses.

3. Results

3.1. socio-demographic characteristics and obstetric profile of study participants

A total of 289 participant were enrolled in the study and reveals that the majority 209(72.3%) of the sample belong to the age group of 28-36 years. Majority 160(55.4%) were married at the age of 28-36 years. 199(68.9%) belonged to Hindu by religion, 43(14.9%) were Buddhist, 41(14.2%) Christian and 6(2.1%) Muslim. Majority 145(50.2%) are from rural areas and 144(49.8%) from urban areas. Majority 105(36.3%) had completed graduation, 101(34.9%) completed secondary school, 44(15.2%) were post-graduate and 39 (13.5%) completed diploma.131(45.3%) were homemakers, 86(29.8%) were private employee,72(24.8%) was employed under govt sectors. 135(46.7%) had monthly income of Rs. <10,000/-, 187(64.4%) belonged to joint family. 172(59.5%) had a supportive family system. Majority 287(99.3%) had a supportive spouse. majority 285(98.6%) has single pregnancy,4(1.4%) has multiple type of pregnancy. Majority 240(83.0%) of the sample had planned pregnancy and 49(17%) had unplanned pregnancy status. Majority 142(49.1%) were 27weeks or more. Majority 285(98.6%) were naturally conceived. 206 (71.3%) has no history of previous miscarriage and 83(28.7%) had a previous history of miscarriage. 9(3.1%) had a history of still birth. 172(59.5%) were multigravida and 117(40.5%) were primigravida.

Table 1: Frequency and percentage distribution of demographic variables of pregnant women

N=289

S. No.	Variable	Frequency *(f)*	Percentage (%)
1	**Age (in years)**		
1.1	19-27	58	20.1
1.2	28-36	209	72.3
1.3	37-45	22	7.6
2	**Age at marriage (in years)**		
2.1	19-27	119	41.2
2.2	28-36	160	55.4
2.3	37-45	10	3.5
3	**3. Religion**		
3.1	Hindu	199	68.9
3.2	Christian	41	14.2
3.3	Muslim	6	2.1
3.4	Buddhist	43	14.9
4	**Type of Residence**		
4.1	Urban	144	49.8
4.2	Rural	145	50.2
5	**Educational qualification**		
5.1	Post-Graduate and above	44	15.2
5.2	Graduate	105	36.3
5.3	Diploma	14	4.8
5.4	Secondary school	101	34.9

5.5	Primary school	25	8.7
5.6	No formal education	0	0
6	**Occupation**		
6.1	Home Maker	131	45.3
6.2	Private employee	86	29.8
6.3	Govt employee	72	24.9
6.4	Any other specify	0	0
7	**Monthly Income**		
7.1	<10,000	135	46.7
7.2	10,001-20,000	82	28.4
7.3	20,001-35,000	30	10.4
7.4	35,001and above	42	14.5
8	**Type of Family**		
8.1	Joint Family	187	64.7
8.2	Nuclear family	102	35.3
8.3	Extended Family	0	0
9	**Family support system**		
9.1	Supportive	172	59.5
9.2	Satisfactory	117	40.5
9.3	Not Supportive	0	0
10	**Spouse support system**		
10.1	Supportive	287	99.3
10.2	Satisfactory	2	0.7
10.3	Not Supportive	0	0

Table 2: Frequency and percentage distribution of obstetric profile of pregnant women

S. No.	Obstetric Profile	Frequency *(f)*	Percentage (%)
1	**Type of pregnancy**		
1.1	Single	285	98.6
1.2	Multiple	4	1.4
2	**Pregnancy status**		
2.1	Planned	240	83
2.2	Unplanned	49	17
3	**Gestational age**		
3.1	13 weeks or less	43	14.9
3.2	14-26 weeks	104	36
3.3	27 weeks or more	142	49.1
4	**Nature of conception**		
4.1	Natural	285	98.6
4.2	Artificial	4	1.4
5	**Previous history of miscarriage**		
5.1	Yes	83	28.7

5.2	No	206	71.3
6	**History of still birth**		
6.1	Yes	9	3.1
6.2	No	280	96.9
7	**Type of gravida**		
7.1	Primi	117	40.5
7.2	Multi	172	59.5

3.2: Finding related to prevalence of antenatal depression.

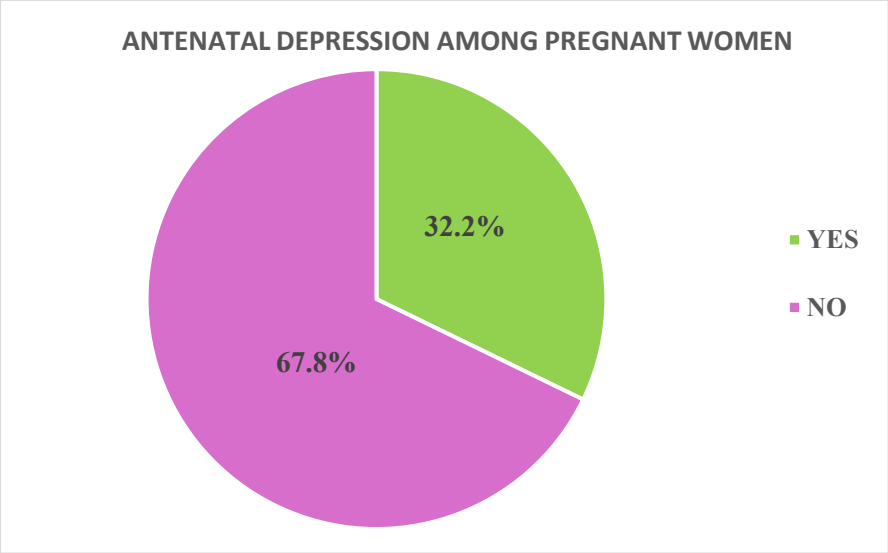

Fig 1: Distribution of antenatal depression among pregnant women

The figure 1. depicts the distribution of antenatal depression among pregnant women. Out of 289 participants 93(32.2%) were found be depressed based on the EPDS cutoff point of 10 or higher, indicating the prevalence of antenatal depression.

Table 3: Association between antenatal depression among pregnant women with demographic variables

N=289

S. No.	Variable	Antenatal depression		χ^2 /Fisher's value	df	p value
		Yes	No			
1	**Age (in years)**					
1.1	19-27	18	40	1.101	2	0.577^{NS}
1.2	28-36	70	139			
1.3	37-45	5	17			
2	**Age at marriage (in years)**					
2.1	19-27	43	76	1.881	2	0.390^{NS}
2.2	28-36	48	112			
2.3	37-45	2	8			
3	**3. Religion**					
3.1	Hindu	65	134	0.457	3	0.928^{NS}
3.2	Christian	14	27			
3.3	Muslim	2	4			

3.4	Buddhist	12	31			
4	**Type of Residence**					
4.1	Urban	49	95	0.449	1	0.503^{NS}
4.2	Rural	44	101			
5	**Educational qualification**					
5.1	Post-Graduate and above	13	31	7.103	4	0.131^{NS}
5.2	Graduate	32	73			
5.3	Diploma	9	5			
5.4	Secondary school	32	69			
5.5	Primary school	7	18			
5.6	No formal education	0	0			
6	**Occupation**					
6.1	Home Maker	47	84	21.14	2	0.001*
6.2	Private employee	38	48			
6.3	Govt employee	8	64			
6.4	Any other specify	0	0			
7	**Monthly Income**					
7.1	<10,000	52	83	10.44	3	0.015*
7.2	10,001-20,000	21	61			
7.3	20,001-35,000	13	17			
7.4	35,001and above	7	35			
8	**Type of Family**					
8.1	Joint Family	55	132	1.86	1	0.173^{NS}
8.2	Nuclear family	38	64			
8.3	Extended Family	0	0			
9	**Family support system**					
9.1	Supportive	38	134	19.8	1	0.001*
9.2	Satisfactory	55	62			
9.3	Not Supportive	0	0			
10	**Spouse support system**					
10.1	Supportive	93	194	0.956	1	0.328^{NS}
10.2	Satisfactory	0	2			
10.3	Not Supportive	0	0			

***P<0.05 Level of Significance NS-Non-Significant**

Table 3 depicts the association between antenatal depression among pregnant women with demographic variables which was tested by using chi-square and Fisher's test. Result revealed that monthly income, occupation and family support system of pregnant women was found significant association at p<0.05 level with antenatal depression thus the Null hypothesis H_{01} is failed to accept but age, age at marriage, religion, type of residence, educational qualification, type of family and spouse support system were found to be non-significant with antenatal depression among pregnant women.

Table 4: Association between antenatal depression among pregnant women with obstetric profile

N=289

S.No.	Variable	Antenatal depression		χ^2 /Fisher's Value	df	p value
		Yes	No			
1	**Date of last menstrual period**					
1.1	1/1/23 – 28/2/23	13	22	2.958	4	0.565^{NS}
1.2	1/3/23 – 30/4/23	36	65			
1.3	31/5/23 – 30/6/23	16	43			
1.4	1/7/23 – 31/8/23	13	23			
1.5	1/9/23 – 31/10/23	15	43			
2	**Expected date of delivery**					
2.1	1/11/23 – 31/2/23	33	55	9.184	4	0.057^{NS}
2.2	1/1/24 – 29/2/24	22	51			
2.3	1/3/24 – 30/4/24	12	34			
2.4	1/5/24 – 30/6/24	18	21			
2.5	1/7/24 – 1/8/24	8	35			
3	**Type of pregnancy**					
3.1	Single	91	194	0.59	1	0.442^{NS}
3.2	Multiple	2	2			
4	**Pregnancy status**					
4.1	Planned	76	164	0.171	1	0.679^{NS}
4.2	Unplanned	17	32			
5	**Gestational age**					
5.1	13 weeks of less	15	28	0.482	2	0.786^{NS}
5.2	14-26 weeks	35	69			
5.3	27 weeks or more	43	99			
6	**Nature of conception**					
6.1	Natural	91	194	0.59	1	0.442^{NS}
6.2	Artificial	2	2			
7	**Previous history of miscarriage**					
7.1	Yes	39	44	11.69	1	0.001*
7.2	No	54	152			
8	**History of still birth**					
8.1	Yes	4	5	0.64	1	0.424^{NS}
8.2	No	89	191			
9	**Type of gravida**					
9.1	Primi	25	92	10.53	1	0.001*
9.2	Multi	68	104			

***P<0.05 Level of Significance** **NS-Non-Significant**

Table 4 depicts the association between antenatal depression among pregnant women with obstetric profile which was tested by using chi-square and Fisher's test. Result revealed that previous history of miscarriage and type of gravida, was found significant association at p<0.05 level with antenatal depression thus the null hypothesis H_{01} is failed to accept but Type of pregnancy, Pregnancy status, Gestational age, Nature of conception, History of still birth were found to be non-significant with antenatal depression among pregnant women.

Table 5: Association between antenatal depression with associated factors among pregnant women

N=289

S. No.	Variable	Risk factors		χ^2 /Fisher's Value	df	p value
		Yes	No			
1	History of depression					
1.1	Yes	93	196	NA	NA	NA
1.2	No	0	0			
2	**Any history of depression in the family**					
2.1	Yes	6	5	2.621	1	0.105^{NS}
2.2	No	87	191			
3	**Thyroid problems**					
3.1	Yes	34	32	14.65	1	0.001*
3.2	No	59	164			
4	**Alcoholism in Spouse**					
4.1	Yes	0	0			
4.2	No	93	196	NA	NA	NA
5	**Availability of any supportive person during pregnancy**					
5.1	Yes	93	196	NA	NA	NA
5.2	No	0	0			
6	**History of substance use**					
6.1	Yes	0	0			
6.2	No	93	196	NA	NA	NA
7	**History of Alcohol consumption**					
7.1	Yes	1	0	2.115	1	0.146^{NS}
7.2	No	92	196			
8	**Stressful life event**					
8.1	Yes	8	4	6.823	1	0.009*
8.2	No	85	192			
9	**Any complications during a previous pregnancy**					
9.1	Yes	35	31	17.03	1	0.001*
9.2	No	58	165			
10	**Marital Conflicts**					
10.1	Yes	0	2	0.956	1	0.328^{NS}
10.2	No	93	194			
11	**Preference of gender**					
11.1	Yes	11	17	0.717	1	0.397^{NS}
11.2	No	82	179			

***P<0.05 Level of Significance** **NS-Non-Significant**

Table 5 depicts the association between antenatal depression with associated risk factors among pregnant women which was tested by using chi-square and Fisher's test. Result revealed that risk factors such as Thyroid problems, stressful life event and Any complications during a previous pregnancy of pregnant women was found significant association at $p<0.05$ level with antenatal depression thus, the null hypothesis H_{02} is fail to accept, but history of depression, any family history of depression, alcoholism in spouse, availability of any supportive person during pregnancy, history of substance use and alcohol consumption, marital conflicts and preference of gender were found to be non-significant with antenatal depression among pregnant women.

Discussion

In this section, major findings have been discussed with references to the results found by the investigators. Finding of the present study showed that the prevalence of antenatal depression was (93) (32.2%). Finding of the present study show that majority (142) 49.1%, (104)36.0% were in 14-26 weeks 27weeks or more of pregnancy. The similar study was reported by Kriti, et al in which the majority 48.6% and 31.2% of the sample were from gestational age of 14-26weeks and 27weeks and more of pregnancy. Similar study was conducted by R. Kamali et al in which the first, second and third trimester of pregnancy were taken as part of study. Finding of the present study showed that the prevalence of antenatal depression was (93) (32.2%). [10]

Similar study was conducted by Kantipundi et al, in tertiary care hospital of south India were 22% of antenatal mother were having depression. [14] Similar study was conducted by Sheeba B, Nath et al, using Edinburg post-natal scale to screen for the antenatal depression. Where 35.7%has prenatal depression. [16] The finding of the study are consistent with the study conducted by Enyidah Nonyenim, et al. where in 31.6% had antenatal depression. [11]

In the present study, 22.8% had thyroid problem,22.8%had complication during previous pregnancy and 4.2% had stressful life events.The findings of the study are inconsistent with the studyconducted by Imtinan K. Alsahaf et al where in 22.5% had stressful life events during pregnancy. [12]

Findings of the present study showed that there was significant association between Occupation, monthly income, and family support system with antenatal depression among pregnant women.

These finding are similar to the findings reported by Dr. Nidhi Trivedi, Dr. Yogesh M , Dr. Viral Shah et al. which depicted that 37% of mother had antenatal depression associated with several issues, including inadequate partner or social support, stressful life events, and a lack of social support.[13]The findings of the study are consistent with the study conducted by Sabita P.1, Prakash M, et al were Pregnancy-related depression was more common in women over thirty, those who were multigravida, lack of support during pregnancy. [28] The finding of the study is consistent with the study conducted by Maria de Jesus, Silva et al. were with a p value of 0.04, there was a statistically significant correlation between depression during pregnancy and occupation.[14]

Findings of the present study showed that there was significant association between thyroid problem stressful life events and any complication during a previous pregnancy with antenatal depression among pregnant women.Similar study was conducted by yonas Tesfaye, et al were there was association between history of abortion during previous pregnancy with antenatal depression.

The study can be conducted in a different setting such as state/region including a large sample size. The current study can be conducted again in a specific community setting. Screening for antenatal depression should become a part of usual antenatal care services The pregnant women must be screened for depression to identify the risks of developing antenatal depression so that appropriate intervention programs can be formulated to prevent its progress to post-natal depression. Awareness programs on mental health, antenatal depression and anxiety must be developed and conducted by health care professional regarding the detection of depression during pregnancy

5.Conclusion

The current study outcomes revealed the presence of a high prevalence of antenatal depression among pregnant women, who attended tertiary care hospital, Sikkim. The association between a few factors such as occupation, monthly income, complication during a previous pregnancy and stressful life events with that of antenatal depression emphasize the importance of mental health for pregnant women. So, depression screening should become a routine antenatal checkup procedure so as to diagnose the disease at early stages and prevent its progression that may complicate the delivery, mental and physical health of both the mother and the child.

Ethical considerations:
Ethical clearance for the study was obtained from by IRPEC/IEC. After a detailed explanation of the purpose and benefits of the study to the study participants, informed written consent was taken.

Funding source
The authors received no specific funding for this work.

Conflict of interest
The authors have no conflicts of interests to declare for this study

Acknowledgement:
The author would like to thank all the participants in this study and the family, friends and teachers for their support during the study.

References:

1.Acheanpong K, Pan X, Kaminga AC, Liu A. Prevalence and risk factors of prenatal depression among pregnant women attending antenatal clinic at Adventist Hospital, Bekwai Municipality, Ghana. Medicine (Baltimore). 2022 Mar 11;101(10):e28862.
2. WHO guide for integration of perinatal mental health in maternal and child health services [Internet]. [cited 2023 Apr 30]. Available from: https://www.who.int/publications-detail-redirect/9789240057142
3. Choosuk P, Pitanupong J, Suwanrath C. Prevalence and Factors Associated with Antepartum Depression: A University Hospital-Based. Siriraj Med J. 2021 Oct 1;73(10):652–60.
4. Marcus M, Yasamy MT, van Ommeren M van, Chisholm D, Saxena S. Depression: A Global Public Health Concern: (517532013-004) [Internet]. American Psychological Association; 2012 [cited 2023 Apr 19]. Available from: http://doi.apa.org/get-pe-doi.cfm?Doi=10.1037/e517532013-004
5. Prabhu S, Guruvare S, George LS, Nayak BS, Mayya S. Prevalence and Associated Risk Factors of Antenatal Depression among Pregnant Women Attending Tertiary Care Hospitals in South India. Depress Res Treat. 2022 Nov 17;2022:9127358.
6. Khanam R, Applegate J, Nisar I, Dutta A, Rahman S, Nizar A, et al. Burden and risk factors for antenatal depression and its effect on preterm birth in South Asia: A population-based cohort study. Xie L, editor. PLOS ONE. 2022 Feb 7;17(2):e0263091.
7. Jyothi Kantipudi S, Kannan G, Viswanathan S, Ranganathan S, Menon J, Ramanathan S. Antenatal Depression and Generalized Anxiety Disorder in a Tertiary Hospital in South India. Indian J Psychol Med. 2020 Nov;42(6):513–8.
8. Launch of the WHO guide for integration of perinatal mental health in maternal and child health services [Internet]. [cited 2023 Apr 30]. Available from: https://www.who.int/news/item/19-09-2022-launch-of-the-who-guide-for-integration-of-perinatal-mental-health.
9. For EPDS. Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression.
Development of the 10-item Edinburgh postnatal depression scale.Br J Psychiatry 1987;150:782–6.
10.Tendais I, Costa R, Conde A, et al. Screening for depression and anxiety disorders from pregnancy to postpartum with the EPDS and STAI. Span J Psychol 2014;17:E7.
11. Adewuya AO, Ola BA, Dada AO, et al. Validation of the Edinburgh postnatal depression scale as a screening tool for depression in late pregnancy among Nigerian women. J Psychosom Obstet Genealogy 2006; 27:267–72.
12.Enyidah Nonyenim Solomon, Nonye-Enyidah Esther and Ibiebelem A. Jumbo. Predictors of Antenatal Depression in a Tertiary Hospital in Nigeria. Asian Journal of Medicine and Health 19(11): 59-65, 2021; Article no.AJMAH.78564 ISSN: 2456-8414
13. Imtinan K. Alsahafi, MD, Eman H. Alblady, MD Sultan F. Magliah, MD layas. Alahmadi, MD Reem J. Alshareef, MD, Dina S. Binmahfoodh, MD, Moayyad S. Alsalem. Unplanned pregnancy and risk of peripartum depression: a prospective cohort study in Saudi pregnant women attending antenatal care clinic. Annals of Medicine & Surgery (2024) 86:666–677 http://dx.doi.org/10.1097/MS9.0000000000001573
14. Monica Maria de Jesus Silva1 https://orcid.org/0000-0002-4532-3992 Tainah Barbosa de Moraes Serrano1 https://orcid.org/0000-0002-5596-5526 Giovanna da Silva Porcel1Risk of depression during pregnancy in usual risk antenatal care.Rev. Latino-Am. Enfermagem 2023;31:e3963 DOI: 10.1590/1518-8345.6463.3963 www.eerp.usp.br/rlae