Original Research Article

SUICIDAL IDEATION AND ASSOCIATED FACTORS AMONG PREGNANT WOMEN IN SOUTHWESTERN NIGERIA

ABSTRACT

Aims: This study was aimed at determining the prevalence and correlates of suicidal ideation among pregnant women attending antenatal clinic at Ekiti state university teaching hospital.
Study design: This research was a cross sectional descriptive study among pregnant women.
Place and Duration of Study: The study was conducted at the antenatal clinics of Ekiti state university teaching hospital, Ado Ekiti. Ekiti state, Nigeria over a 2 month period.
Methodology: A total of 187 pregnant women agreed to participate in the study. The question 9 of the Patient health Questionnaire (PHQ-9) was used to assess for suicidal ideation among the respondents. While depression and level of social support were evaluated using the PHQ-9 and social support inventory questionnaires respectively.
Results: The average age of the respondents was 31.29yrs ±4.54**.** The prevalence of suicidal ideation among the respondents was 2.8% while prevalence of severe depression was 5.0%.The factors significantly associated with suicidal ideation were; lower age of respondents (t= 3.06, *P*=.002, CI = 2.225 − 10.244), lower educational achievement (χ^2 = 10.317,*P* = .006),fewer number of previous deliveries (t= 2.304, *P* = .04, CI = .026 − 1.877), fewer Children alive (t= 1.986, *P* = .03,CI = .004 − 1.766), depression (t= -5.986, *P* = .004, CI = -12.35 − -6.23), Poor emotional support (t= .677, *P* = .003, CI = .471 − 2.16)..
Conclusion: Suicidal ideation among pregnant women was observed in the study and the major factors associated with it were younger age, depression, lower educational attainment, having fewer children and lack of emotional support from spouse.

Keywords: suicidal ideation, depression, suicide, pregnancy

1. INTRODUCTION

Pregnancy is a stressful period for many women as such it is not surprising that some of them come down with various psychological morbidities including depression, insomnia and suicidal ideation.[1–3] It has been reported that suicide is one of the leading causes of death during the perinatal period.[4,5] Suicidal ideation in pregnancy is worrisome as it is considered a precursor and distal predictor of later suicide.[5]
Globally, over 800 000 people die by suicide every year, representing an annual age-standardized suicide rate of 6.11 per 100 000 population in Nigeria.[6] A recent mental health survey done in Nigeria reported a prevalence of 7.28% for suicidal ideation among Lagos state residents.[7]

It was generally believed that pregnancy has a protective effect against suicide, however, a recent study showed that pregnant women are more likely to harbour suicidal ideations.[8]Similarly, other researchers have reported a higher prevalence of suicidal ideation in pregnant women compared to the general population and in developing countries, up to 20% of maternal deaths during pregnancy are due to suicide.[5,8] Features of perinatal suicidality may however vary from non-perinatal suicidality especially in terms of method of eventual suicide. It was observed that perinatal women who plan, attempt, or complete suicide are more likely than non-perinatal women to choose violent methods.[5,9] Various prevalence rates of suicidal ideation in pregnancy have been reported and this range from between 2.3% and 2.7%.[4,10,11] Higher prevalence rates ranging from 23-33% were also reported by other authors.[12,13]

Several studies have reported various risk factors for suicidal ideation during pregnancy and these include; lower educational attainment, depression ,younger age , multiparousity , and being unmarried [5,8,9,14,15].Others have observed other risk factors and these include history of abuse, sociodemographic characteristics, psychiatric co morbidities, sleep disturbances such as nightmares, insomnia, and poor sleep quality, gender norms, family dynamics, and cultural differences[8,16]
Consequences of suicidal ideation during pregnancy are diverse and include foetal consequences and many non-fatal adverse outcomes for both mothers and infants[4,5].such negative outcomes may include poorer mother-infant relationship and lower birth weight.[17,18]
The aim of the study was to determine the prevalence and correlates of suicidal ideation among pregnant women attending antenatal clinic at a tertiary hospital in south-western Nigeria (Ekiti state university teaching hospital (EKSUTH)).

2. MATERIAL AND METHODS

2.1 Study setting /subjects
The study was conducted at the antenatal clinics of EKSUTH among pregnant women attending the clinics. All pregnant women attending antenatal clinic at EKSUTH who gave their consent were included in the study.

2.2 Study design

This research was a cross sectional descriptive study among pregnant women.

2.3 INSTRUMENTS

2.3.1 SOCIODEMOGRAPHIC QUESTIONNAIRE; This comprised of the sociodemographic details of the participants and other clinical details including obstetric history of the participants.

2.3.2 Patient Health Questionnaire (PHQ-9) ;This is a 9-item instrument for detecting depression in clinical settings. The PHQ-9 had good concurrent validity with the BDI ($r=0.67$, $P<0.001$). It also had a good ($r=0.894$, $P<0.001$) one month test-retest reliability.[19].

2.3.3 Suicidal ideation: This was assessed using Question 9 of thePHQ-9 which states that 'Over the past 2 weeks, how often have you been bothered with the thought that you would be better off dead or of hurting yourself in some way'. The responses include 0=not at all, 1=several days, 2=more than half the days and 3=nearly every day. All the responses apart from 'not at all' is considered as having suicidal ideation. This aspect of the PHQ 9 was also used to assess for suicidal ideation in the Lagos state mental health survey. [7]

2.3.4 The Social Support Inventory (SSI): This is a a Brief Scale used to Assess Perceived Adequacy of Social Support. The instrument contains 20 items and four subscales; 'Social Companionship', 'Emotional Support', 'Instrumental Support' and 'Informative Support'.

2.4 ETHICAL CONSIDERATIONS:

Ethical approval was obtained from EKSUTH ethics and research committees. All participant data were kept confidential and accessible only to the researchers. No harm was done to study participants beyond the inconvenience of time spent in answering the questionnaires.

2.5 Data Analysis

All the data collected were collated and checked for error and analyzed using the statistical package for social sciences (SPSS) version 25.0. Various statistical tools were used as appropriate.

2.6 Duration of study

The study was conducted over a 2 months period.

3. RESULTS AND DISCUSSION

A total of 187 respondents agreed to participate in the study. The average age of the respondents was 31.29yrs ±4.54. Most (77.8%) of them were married with a high proportion (82.7%) of them with post-secondary education. More than a third (36.4%) of the participants were unemployed and only 8.2% of them earned more than 150 dollars equivalent per month. About a quarter (24.4%) was nulliparous while slightly more than a quarter (25.9%) of them had no child alive. Most (87.7%) of the respondents confirmed that the pregnancy was planned. (Table 1)

The prevalence of suicidal ideation among the respondents was 2.8% while prevalence of severe depression was 5.0%.The factors significantly associated with suicidal ideation were; lower age of respondents (t= 3.06, *P*=.002, CI = 2.225 – 10.244), lower educational achievement (χ^2 = 10.317,*P* = .006),fewer number of previous deliveries (t= 2.304, *P* = .04, CI = .026 – 1.877), fewer Children alive (t= 1.986, *P* = .03,CI = .004 – 1.766), depression (t= -5.986, *P* = .004, CI = -12.35 – -6.23), Poor emotional support (t= .677, *P* = .003, CI = .471 – 2.16). (Table 2).

This study observed that the prevalence of suicidal ideation was 2.8%. This prevalence rate is similar to that observed by Gavin et al. in the United States. They found a prevalence rate of 2.7% of suicidal ideation using PHQ-9 in a sample of 2159 pregnant women.[4] Several other studies have reported similar prevalence rates of between 2.3% and 2.7%.[10,11]

One of the factors associated with suicidal ideation observed in this study was having depression. Similar findings were reported by Gavin et al, who reported a high prevalence of co morbidity with major depression.[4] According to Nock et al, major depressive disorder conveys one of the highest risks for suicidal ideation.[20] Findings from other studies also reveal a strong association between depression and suicidal ideation.[8,15,21]

Younger age of pregnant women was also found to be associated with suicidal ideation in this study. Previous studies have also reported that younger pregnant women experienced a higher prevalence of suicidal ideation than the older ones.[22,23]

This study observed that there was an association between poor educational attainment and suicidal ideation. Other studies had also reported that lower educational attainment is associated with an increased risk of suicidal ideation among pregnant women.[12,13,23–26]. Mauri et al, in a prospective cohort study of pregnant women in Italy observed that low educational attainment (<12 years education) was associated with 2.90-fold increased odds of suicidality during pregnancy.[26]

Poor emotional support from spouse was another factor found to be associated with suicidal ideation in our study. Similar findings were reported by other researchers in their study.[27]

Our study reported an association between having fewer children and suicidal ideation. This is contrary to the findings of other authors who found suicidal ideation to be more common in multiparous women. For instance, Farias et al, in their cross-sectional analysis of data from a cohort of pregnant women in Brazil, reported a higher prevalence of suicide risk among multiparous women compared with primiparas.[28] Also, Gandhi et al. found that women with 2 children and those with 3+ children had increased risk of attempted suicide compared with nulliparas.[23]

We however observed some limitations in our study. First of such is the cross-sectional nature of the study which may limit our ability to establish the causal nature of the association between suicidal ideation and the various factors. Another limitation may be the use of a single question to evaluate for

suicidal ideation. Perhaps a more comprehensive questionnaire could reveal other dimensions of suicidal ideation. The small sample size of this study also limits the extent to which our findings can be generalised to other populations

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Table 1: sociodemographic and clinical variables.

VARIABLE	FREQUENCY	PERCENTAGE (%)
Marital status		
Single	41	22.2
Married	144	77.8
Education		
Primary completed	5	2.8
Secondary completed	26	14.5
Post secondary	148	82.7
Religion		
Islam	20	10.7
Christianity	167	89.3
Employment		
Employed	119	63.6
Unemployed	68	36.4
Monthly Income		
None	50	29.2
<$150	106	59.7
$150- $250	10	5.3
>$250	5	2.9
Previous deliveries		
None	39	24.4
1-2	107	66.9
>2	14	8.8
Children alive		
None	41	25.9
1-2	107	67.7
>2	10	6.3

Planned pregnancy		
Yes	164	87.7
No	23	12.3

Table 2: factors associated with suicidal ideation.

VARIABLE	TEST	*P value*	CI
AGE	t= 3.06	.002	2.225 – 10.244
Marital status	χ^2 = .016	.898	
Education	χ^2 = 10.317	.006	
Planned pregnancy	χ^2 = 3.566	.168	
Religion	χ^2 = 1.264	.531	
Gestational age	t= .928	.355	-4.239 – 11.759
Previous deliveries	t= 2.304	.044	.026 – 1.877
Children alive	t= 1.986	.033	.004 –1.766
PHQ score	t= -5.986	.004	-12.35–6.23
Emotional support	t= .677	.003	.471– 2.16
Informative support	t=-.746	.457	-5.15– 2.32
Social support	t= -.44	.658	-4.71– 2.98

4. CONCLUSION

This study observed a prevalence of 2.8% for suicidal ideation among pregnant women attending antenatal clinic in EKSUTH. The major factors associated with suicidal ideation were younger age, depression, lower educational attainment, having fewer children and lack of emotional support from spouse. Screening pregnant women for thoughts of self harm using a short screening tool like the question 9 of PHQ -9 may aid in early detection of those at risk of physical self harm.

CONSENT

Written informed consent of the patients was obtained before they were included in the study. Those who declined consent were not victimized in any way.

REFERENCES

1. Anbesaw T, Negash A, Mamaru A, Abebe H, Belete A, Ayano G. Suicidal ideation and associated factors among pregnant women attending antenatal care in Jimma medical center, Ethiopia. PLOS ONE. 2021 Aug 25;16(8):e0255746.

2. Usman DM, Akintayo A, Peter AO, Olutoyin OL, Adetunji O. Prevalence and Correlates of Psychological Morbidity among Pregnant Women in South Western Nigeria. International Journal of Health Sciences. 2018;(6):5.

3. Mobolaji Usman D, Aduloju Olusola Peter, Akintayo Akinyemi, Obadeji Adetunji, Oluwole Lateef Olutoyin. Insomnia in Pregnancy: Prevalence and Predisposing Factors in a Developing Country. CAJPH. 2018;4(3):65.

4. Gavin AR, Tabb KM, Melville JL, Guo Y, Katon W. Prevalence and correlates of suicidal ideation during pregnancy. Arch Womens Ment Health. 2011 Jun 1;14(3):239–46.

5. Lindahl V, Pearson JL, Colpe L. Prevalence of suicidality during pregnancy and the postpartum. Arch Womens Ment Health. 2005 Jun 1;8(2):77–87.

6. Suicide [Internet]. [cited 2022 Jan 23]. Available from: https://www.who.int/news-room/fact-sheets/detail/suicide

7. Adewuya AO, Ola BA, Coker OA, Atilola O, Zachariah MP, Olugbile O, et al. Prevalence and associated factors for suicidal ideation in the Lagos State Mental Health Survey, Nigeria. BJPsych open. 2016 Nov;2(6):385–9.

8. Gelaye B, Kajeepeta S, Williams MA. Suicidal ideation in pregnancy: an epidemiologic review. Arch Womens Ment Health. 2016 Oct 1;19(5):741–51.

9. Orsolini L, Valchera A, Vecchiotti R, Tomasetti C, Iasevoli F, Fornaro M, et al. Suicide during Perinatal Period: Epidemiology, Risk Factors, and Clinical Correlates. Frontiers in Psychiatry [Internet]. 2016 [cited 2022 Jan 23];7. Available from: https://www.frontiersin.org/article/10.3389/fpsyt.2016.00138

10. Arachchi NSM, Ganegama R, Husna AWF, Chandima DL, Hettigama N, Premadasa J, et al. Suicidal ideation and intentional self-harm in pregnancy as a neglected agenda in maternal health; an experience from rural Sri Lanka. Reprod Health. 2019 Nov 15;16:166.

11. Melville JL, Gavin A, Guo Y, Fan M-Y, Katon WJ. Depressive Disorders During Pregnancy. Obstet Gynecol. 2010 Nov;116(5):1064–70.

12. Alhusen JL, Frohman N, Purcell G. Intimate partner violence and suicidal ideation in pregnant women. Arch Womens Ment Health. 2015 Aug 1;18(4):573–8.

13. Newport DJ, Levey LC, Pennell PB, Ragan K, Stowe ZN. Suicidal ideation in pregnancy: assessment and clinical implications. Arch Womens Ment Health. 2007 Oct 1;10(5):181–7.

14. Gentile S. Suicidal mothers. J Inj Violence Res. 2011 Jul;3(2):90–7.

15. Onah MN, Field S, Bantjes J, Honikman S. Perinatal suicidal ideation and behaviour: psychiatry and adversity. Arch Womens Ment Health. 2017 Apr;20(2):321–31.

16. Gelaye B, Rondon MB, Araya R, Williams MA. Epidemiology of maternal depression, risk factors, and child outcomes in low-income and middle-income countries. The Lancet Psychiatry. 2016 Oct;3(10):973–82.

17. Hodgkinson SC, Colantuoni E, Roberts D, Berg-Cross L, Belcher HME. Depressive Symptoms and Birth Outcomes among Pregnant Teenagers. Journal of Pediatric and Adolescent Gynecology. 2010 Feb 1;23(1):16–22.

18. Paris R, Bolton RE, Weinberg MK. Postpartum depression, suicidality, and mother-infant interactions. Arch Womens Ment Health. 2009 Aug 29;12(5):309.

19. Adewuya AO, Ola BA, Afolabi OO. Validity of the patient health questionnaire (PHQ-9) as a screening tool for depression amongst Nigerian university students. Journal of Affective Disorders. 2006 Nov;96(1–2):89–93.

20. Nock MK, Borges G, Bromet EJ, Alonso J, Angermeyer M, Beautrais A, et al. Cross-national prevalence and risk factors for suicidal ideation, plans and attempts. Br J Psychiatry. 2008 Feb;192(2):98–105.

21. Howard LM, Flach C, Mehay A, Sharp D, Tylee A. The prevalence of suicidal ideation identified by the Edinburgh Postnatal Depression Scale in postpartum women in primary care: findings from the RESPOND trial. BMC Pregnancy and Childbirth. 2011 Aug 3;11(1):57.

22. Kessler RC, Berglund P, Borges G, Nock M, Wang PS. Trends in suicide ideation, plans, gestures, and attempts in the United States, 1990-1992 to 2001-2003. JAMA. 293(20):9.

23. Gandhi SG, Gilbert WM, McElvy SS, Kady DE, Danielson B, Xing G, et al. Maternal and Neonatal Outcomes After Attempted Suicide: Obstetrics & Gynecology. 2006 May;107(5):984–90.

24. Asad N, Karmaliani R, Sullaiman N, Bann CM, McClure EM, Pasha O, et al. Prevalence of suicidal thoughts and attempts among pregnant Pakistani women. Acta Obstet Gynecol Scand. 2010 Dec;89(12):1545–51.

25. Silva D dos SD, Tavares NV da S, Alexandre ARG, Freitas DA, Brêda MZ, Albuquerque MC dos S de, et al. Depression and suicide risk among nursing professionals: an integrative review. Rev esc enferm USP. 2015 Dec;49(6):1023–31.

26. Mauri M, Oppo A, Borri C, Banti S. SUICIDALITY in the perinatal period: comparison of two self-report instruments. Results from PND-ReScU. Arch Womens Ment Health. 2012 Feb 1;15(1):39–47.

27. Supraja TA, Thennarasu K, Satyanarayana VA, Seena TK, Desai G, Jangam KV, et al. Suicidality in early pregnancy among antepartum mothers in urban India. Arch Womens Ment Health. 2016 Dec;19(6):1101–8.

28. Farias DR, Pinto T de JP, Teofilo MMA, Vilela AAF, Vaz J dos S, Nardi AE, et al. Prevalence of psychiatric disorders in the first trimester of pregnancy and factors associated with current suicide risk. Psychiatry Research. 2013 Dec;210(3):962–8.