

## 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 clinics at Ekiti state university teaching hospital.

**Study design:** This research was a ~~cross-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~~State, Nigeria over ~~a 2-month period~~2 months.

**Methodology:** A total of 187 pregnant women agreed to participate in the study. ~~The~~ ~~g~~ Question 9 of the Patient ~~health-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  $\pm$ 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 ( $\chi^2 = 10.317, P = .006$ ), 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 ~~a~~ 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.<sup>1-3</sup> It has been reported that suicide is one of the leading causes of death during the perinatal period.<sup>4,5</sup> Suicidal ideation in pregnancy is worrisome as it is considered a precursor and distal predictor of later suicide.<sup>5</sup>

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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.<sup>6</sup> A recent mental health survey done in Nigeria reported a prevalence of 7.28% for suicidal ideation among Lagos state residents.<sup>7</sup>

It was generally believed that pregnancy has a protective effect against suicide,<sup>7</sup> however, a recent study- showed that pregnant women are more likely to harbour suicidal ideations.<sup>8</sup> 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.<sup>5,8</sup> 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.<sup>5,9</sup> Various prevalence rates of suicidal ideation in pregnancy have been reported and this ranges from between 2.3% and 2.7%.<sup>4,10,11</sup> Higher prevalence rates ranging from 23-33% were also reported by other authors.<sup>12,13</sup>

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Several studies have reported various- risk factors for suicidal ideation during pregnancy and these include; lower educational attainment, depression-, younger age-, multipareousity-, and being unmarried<sup>5,8,9,14,15</sup>. Others have observed other risk factors and these include the 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<sup>8,16</sup>

Consequences of suicidal ideation during pregnancy are diverse and include foetal consequences and many non-fatal adverse outcomes for both mothers and infants<sup>4,5</sup>. such negative outcomes- may include poorer mother-infant relationship-relationships and lower birth weight.<sup>17,18</sup>

The aim of the study was a study aimed to determine the prevalence and correlates of suicidal ideation among pregnant women attending antenatal clinics 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 the 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-one-month test-retest reliability.<sup>19</sup>

2.3.3 Suicidal ideation: This was assessed using Question 9 of the PHQ-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 being 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.<sup>7</sup>

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**Comment [V5]:** Explain the questions

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

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#### 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.

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#### 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.

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#### 2.6 Duration of study

The study was conducted over a 2-months period 2 months.

### 3. RESULTS AND DISCUSSION

A total of 187 respondents agreed to participate in the study. The average age of the respondents was 31.29yrs  $\pm$ 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)

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And how did you decide for this number to start your trial?

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 ( $\chi^2 = 10.317, P = .006$ ), 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.<sup>4</sup> Several other studies have reported similar prevalence rates of between 2.3% and 2.7%.<sup>10,11</sup>

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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.<sup>4</sup> According to Nock et al, major depressive disorder conveys one of the highest risks for suicidal ideation.<sup>20</sup> Findings from other studies also reveal a strong association between depression and suicidal ideation.<sup>8,15,21</sup>

Younger-The 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.<sup>22,23</sup>

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.<sup>12,13,23-26</sup>

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.<sup>26</sup>

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

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.<sup>28</sup> Also, Gandhi et al. found that women with 2 children and those with 3+ children had an increased risk of attempted suicide compared with nulliparas.<sup>23</sup>

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-generalized to other populations

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              | <i>P value</i> | CI              |
|---------------------|-------------------|----------------|-----------------|
| AGE                 | t= 3.06           | .002           | 2.225 – 10.244  |
| Marital status      | $\chi^2 = .016$   | .898           |                 |
| Education           | $\chi^2 = 10.317$ | .006           |                 |
| Planned pregnancy   | $\chi^2 = 3.566$  | .168           |                 |
| Religion            | $\chi^2 = 1.264$  | .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 clinics 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 a 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.

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