

## Socio-demographic Risk Factors in Depression among the Clergy in Nigeria

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### Authors' contributions

This work was carried out in collaboration among all authors. Author ENS designed the study, wrote the protocol and drafted the manuscript. Author OUM searched the literature and analysed the data. Author AS administered the questionnaire and read through the draft. All authors read and approved the final manuscript.

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### ABSTRACT

**Background:** Depression poses a huge challenge on personal, professional, and social life of individuals. Studies on the prevalence of depression have largely been on the general population, using socio-demographic variables to explain its outcome. The clergy constitutes a special group of trained professionals on the vocation of care-giving, problem solving and spiritual healing. Information is scanty on the prevalence of depression among them and the contribution of socio-demographic risk factors on their mental health.

**Objectives:** This study seeks to determine the prevalence of depression among the clergy and impact of socio-demographic variables on their mental health.

**Methods:** 84 pastors of the Seventh-Day Adventist Church in southern Nigeria, were evaluated for depression using the 9-item patients health questionnaire (PHQ-9), which assesses vulnerability to depression, and a 27 item demographic and risk factor questionnaire which assessed the demographic variables. Using the statistical package for social sciences (SPSS-25.0), cross tabulation of variables of interest were obtained using  $\chi^2$  and t-test. Level of correlation of variables with depression was done by a bivariate correlation analysis.

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**Results:** Out of the 84 pastors who consented to the study, 16 (19%) had depression, mean age of participants was 43.6yr, 72 (85.7%) were currently married, all the participants were educated, the mean year of service was 10 years and 45% had at least 3 children. There was no significant correlation between the socio-demographic variables and depression.

**Conclusion:** The study revealed a 19% prevalence rate for depression among the clergy and that the socio-demographic variables of age, marital status, level of education, number of children and year of service impacted positively on the mental health of the clergy.

*Keywords: Depression; socio-demographic variables; clergy; PHQ-9; seventh-day adventist church correlation.*

## 1. INTRODUCTION

Depression is common, with huge public health implications and ranks remarkably high in its contribution to the overall burden of diseases [1]. Lost productivity, cost of treatment, reduced quality of life [2], disability and negative impact on outcome of medical illnesses [3,4] are some of the adverse effects of depression. Adequate and sound mental health is a necessity for every human being and a prerequisite to a good life. Depression therefore poses a huge challenge on personal, professional and social life of individuals.

Numerous scientific studies across the globe with extensive analysis have been done on prevalence of depression, risk factors and treatment outcomes. Grace et al. [5] did a systematic review and meta-analysis of prevalence of depression on the communities from 30 countries between 1994 and 2014. In a recent study, Debra et al. [6] using the PHQ-9 reported a two -week prevalence rate of depression on adults over 20yr from the National Health Survey. Gureje et al. [7], carried out a National survey in Nigeria and reported on the prevalence in the general population. These studies provide reasonable explanation on the prevalence of depression among the general adult population, using socio-demographic variables such as age, sex, marital status, level of education, employment status, etc.

The clergy constitutes a group of professionals trained in the vocation of care-giving, problem solving and spiritual upliftment of desiring members of the public. Studies have shown that the clergy performs such duties as pastoral, preaching, teaching, ritual cleansing, religious organization and administration [8]. Weaver [9], and Bohnert et al. [10] showed that in times of crisis, the clergy acts as first responders in crisis management and that more than 25% of

mentally ill patients report to the clergy as first line care givers.

Empirical studies on the prevalence of depression among the clergy are terse especially on the African continent and Nigeria in particular. Proeschold-Bell et al. [11], studied the prevalence of depression among united Methodist clergy in the USA, using PHQ-9, Knox s. et al. [12], studied the Roman Catholic secular clergy in the USA using the centre for epidemiological studies for depression (CES-D), highlighting the variables of vocational satisfaction, social support, spiritual life and physical environment. The authors of this study are unaware of any similar studies in Nigeria. This study therefore intends to report on the prevalence of depression in the clergy of the Seventh-day Adventist church in Nigeria.

## 2. METHODS

The study was conducted in Rivers State Southern Nigeria. The participants were pastors of the Seventh-day Adventist church currently serving in the state. As at the time of the study there were over 90 pastors serving in the state. These pastors meet monthly in their conference headquarters with their leadership. The authors met with them during these meetings for the interviews. 90 pastors consented to the study in writing and participated in the study.

### 2.1 Instruments

The study was a cross-sectional study, it used the self-administered interview technique. A 27 item demographic and risk factor questionnaire which assessed demographic variables, risk factors covering career, life style, financial distress, work demands and other variables, was given to each participant. All the participants responded to the 9-item patients health questionnaire (PHQ-9) English version.

The PHQ-9 is a self-administered version of PRIME-MD diagnostic instrument for common mental disorders. PHQ-9 is the depressive model which scores each of the nine DSM-4 criteria as "0" (not at all) to "3" (nearly every day). It has been validated for use in primary care. It has a 61% sensitivity and 94% specificity in adults. Depressive severity 0-4 none, 5-9 mild, 10-14 moderate, 15-19 moderately severe, 20-27 severe. It is validated against Mental Health Professional (MHP) and a PHQ-9 score  $\geq 10$  has a sensitivity of 88% and a specificity of 88%. Each item on the PHQ-9 was rated on a scale of 0, 1, 2, 3, a total cut-off score of 10 or more, was regarded as a positive score for major depression.

Using the Statistical Package for Social Sciences, (SPSS), a base line descriptive analysis was done, cross tabulation of variables of interest were obtained using chi-square ( $\chi^2$ ) and t-test and  $p < 0.05$  was used as level of significance. A bivariate correlation analysis was done to measure the level of correlation  $\rho$  of each of the socio-demographic variables with depression.

### 3. RESULTS

A total of 90 pastors consented to the study. 84 (93.3%) returned their questionnaires giving a 6.7% attrition rate. The mean age of participants was 43.6yr, the result did not show strong association between age of pastors and depression ( $p=0.08$ ), ( $r=0.048$ ).

Table 1 and Fig. 1. show the age distribution and its association with depression. 72 pastors (85.7%), were married, 11 were not married and one was widowed. A very weak association exists between marital status and depression ( $p=0.08$ ), ( $r=0.006$ ). Table 3 and Fig. 3. show the association between marital status and depression. All the pastors were educated, 21.4% had secondary education 47% and 31% had graduate and postgraduate education respectively. Level of education did not show any significant association with depression ( $p=.32$ ), ( $r=0.069$ ). Table 2 and Fig. 2. show level of education and association between it and depression.

The mean year of service is 10yr with 13% serving for more than 20yr and 39.3% for less than 6yr. A weak association exists between year of service and depression ( $p=0.07$ ), ( $r=0.039$ ). 45% of the pastors had 1-3 children, and 14.3% had more than 4 children. A good but not significant association between number of children and depression exists ( $p=0.06$ ), ( $r=0.001$ ).

This study recorded 16 pastors (19%) as having depression, and showed no significant correlation between the socio-demographic variables of age, marital status, level of education, number of children, year of service and depression. However, age, marital status and number of children showed a negative correlation with depression.

**Table 1. Showing age distribution and age association with depression**

S/N	Age range	Frequency	Percentage	Depressive correlates Yes	Depressive correlates no
1	20-29	8	9.5	3	5
2	30-39	21	25	0	21
3	40-49	32	38.1	9	23
4	50-59	23	27.4	4	19
Total		84	100	16	68

$$\chi^2=11.9, df=3, p=0.08, r=0.048$$

**Table 2. Showing level of education and association with depression**

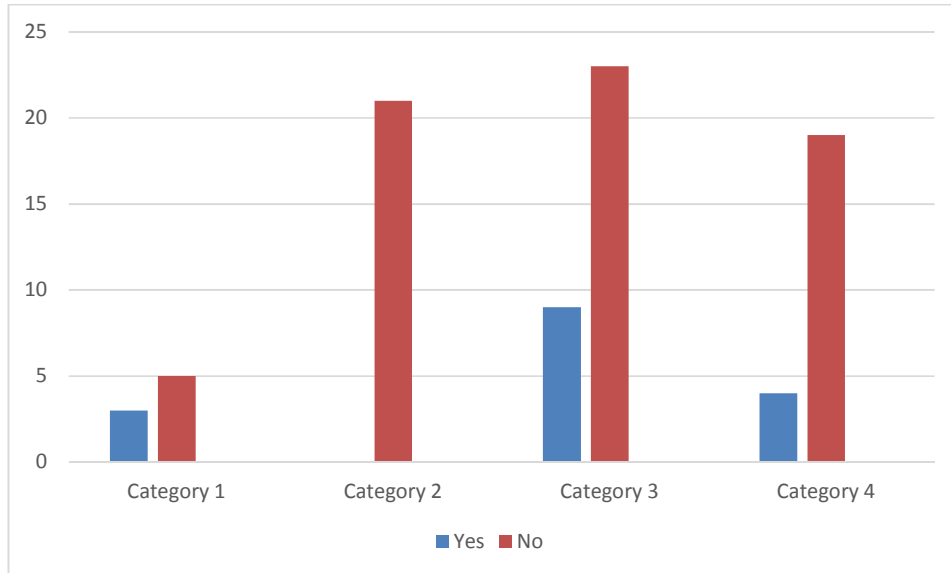
S/N	Education level	Frequency	Percentage	Depressive correlates yes	Depressive correlates no
1	Secondary	18	21.4	4	14
2	Graduate	40	47.6	5	35
3	Postgraduate	26	31	7	19
Total		84	100	16	68

$$\chi^2=2.307, df=2, p=0.32, r=0.069$$

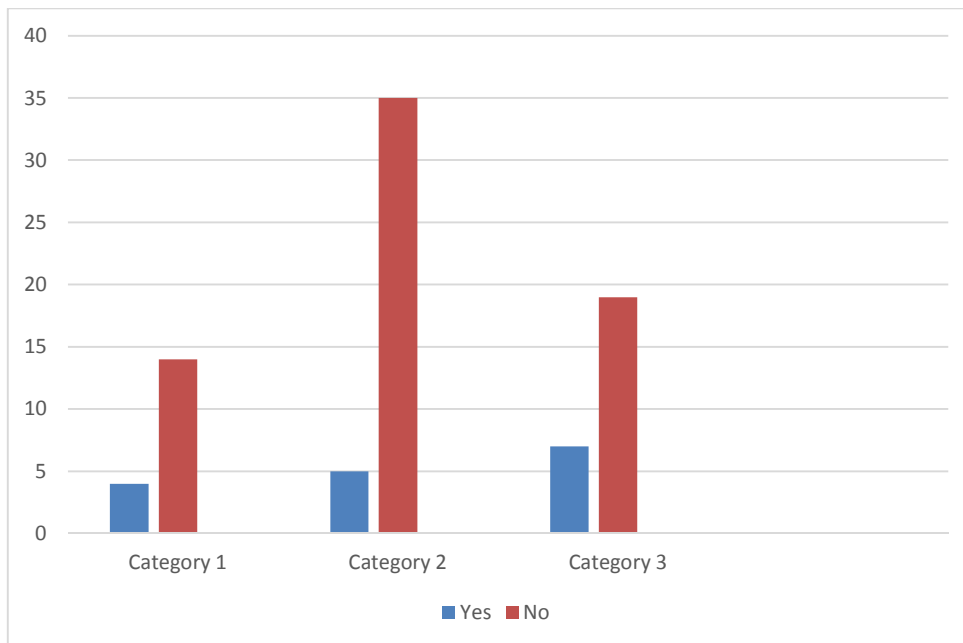
**Table 3. Showing marital status and association with depression**

S/N	Marital status	Frequency	Percentage	Depressive correlate; yes	Depressive correlate; No
1	Single	11	13.1	2	9
2	Married	72	85.7	14	58
3	Widower	1	1.2	-	1
Total		84	100	16	68

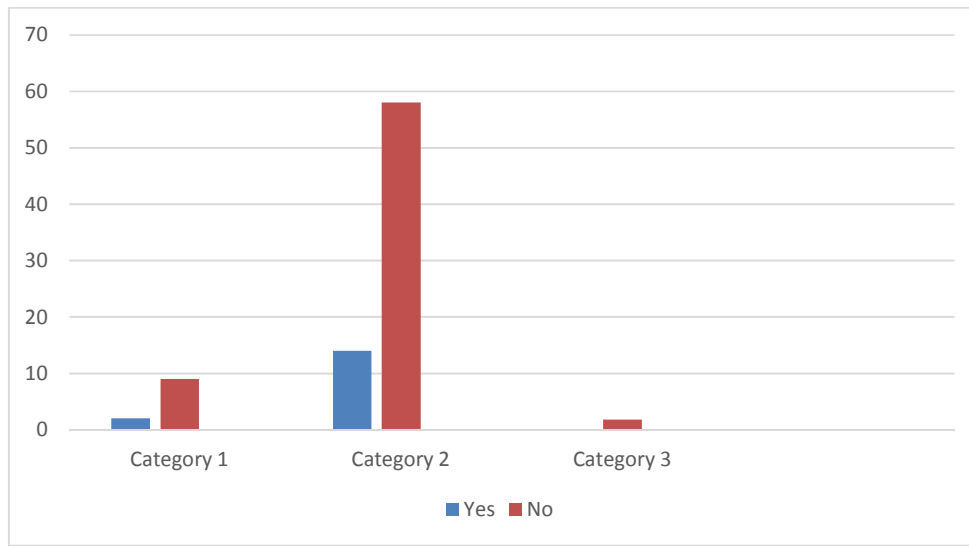
$\chi^2=0.435, df=2, p=0.80, r=0.006$



**Fig. 1. Showing association between age distribution and depression**



**Fig. 2. Showing association between level of education and depression**



**Fig. 3. Showing association between marital status and depression**

#### 4. DISCUSSION

Major depressive disorder is said to have highest life time prevalence rate of all psychiatric disorders at 17%, [13]. This prevalence rate is from recent research reports which also stresses the fact that depression is largely under reported, meaning that a higher prevalence pervades the communities all over the world. The meta analysis of prevalence rates in the communities from 30 countries by Grace et. al. (2018), found the aggregate point prevalence of 12.9% and 14.8% for lifetime prevalence. Among the continents, the study reported the highest rate of 20.6% from South America, and the lowest rate of 7.3% from Australia.

This study reports a prevalence rate of 19% among pastors of Seventh-day Adventist church in Southern Nigeria.

A similar study using PHQ-9 by Debra et. al. (2018) in the USA, reported 8.1% prevalence rate. The National health survey in Nigeria by Gureje et al. (2009) reported a prevalence of 5.6%. The study on United Methodist clergy by Prochold et al. (2013), using PHQ-9 reported a prevalence of 11.1% in the USA.

Knox S, Virginia SG and Lumbardo JP (2002), reported 20% prevalence in their study on Roman Catholic clergy in the USA this may be in keeping with the outcome of this study, but contrary to the findings in this study, they reported a significant correlation between

depression and the sociodemographic variables of vocational satisfaction, social support, spiritual life etc. In a similar study, on church of Nazaree clergy in the USA, Proulx et al. [14] reported a prevalence of 17% while Knox et al. [15] reported 41% prevalence on another clergy group in te USA.

Sociodemographic variables of age, marital status, and level education are known as significant contributors to the variants found in the prevalence of depression in the general population. Proechold-Bell et. al. reported similar interactions of age, gender, marital status and sex with variance in the prevalence of depression among the clergy. This study did not find any strong correlation between these variables and depression in these clergymen. The Adventist clergy turned out with high prevalence rate of 19% for depression, and negative correlation with the sociodemographic variables of age, marital status, level of education and duration of service. These variables which are strong prognostic factors for depression appear to be in good standing with Adventist pastors. Sociodemographic variables of age turned out good for the pastors because the older they are on their jobs the more experienced, the better and stronger they are spiritually. 87.5% of the pastors were married, they are said to be married to the wives of their youths, a happy home surely is a good prognostic factor for depression. Duration of service and number children also played out well for the pastors. They got promoted when due, and their children are trained by the church. In spite of the prognostic

advantages from the sociodemographic variables, the pastors still turned out with a high prevalence rate. There is need therefore for further studies to assess other variables especially those relating directly to their ministerial duties.

## 5. CONCLUSION

The burden of depression, its effect on work, social life, and psychological wellbeing of clergy could be crippling and long lasting. Such disorders can be challenging to cope with when working and are associated with reduced work ability [16] and job performance [17,18]. Bjorn [19] (2020) showed a negative relationship between depression and work engagement in a cross sectional study of Norwegian clergy. The sociodemographic variables of age, marital status, level of education, number of children and duration of service conferred a positive prognosis on variances of depression on Seventh-day Adventist pastors.

The greater the level of individual clergy mental health, the more effective the clergy will be able to serve their congregation and communities with the message of hope, grace and love.

## CONSENT

Consent was given by all the relevant authorities and all the pastors.

## ETHICAL APPROVAL

Ethical approval was given by the hospital ethical committee.

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## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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