



## Original Work

### Self-reported psychological distress and its relationship with religiousness of Nigerian physicians: a multicenter study

Oluyemi O. Akanni<sup>\*1</sup>, Adeagbo F. Osundina<sup>1</sup>, Imafidon O. Agbonile<sup>1</sup>, Sunday O. Olotu<sup>1</sup>, Olaniyi O. Ayilaraa<sup>1</sup>, Kingsley O. Akhigbeb<sup>2</sup>

<sup>1</sup>Federal Neuropsychiatric Hospital, Benin-City, Edo State, Nigeria

<sup>2</sup>University of Benin Teaching Hospital, Benin-City, Edo State, Nigeria

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**ABSTRACT:** Physicians are prone to psychological distress, and this has been poorly studied in association with religiousness. As a result, the prevalence of psychological distress among physicians and its relationship with religiousness was investigated. The study was conducted at two neuropsychiatric centers, and two teaching hospitals in the South-South and South-West regions of Nigeria. Demographics and practice-related characteristics of 231 physicians were collected in addition to report on psychological distress using the 12-item General Health Questionnaire, and a religiousness measuring scale, Ironson–Woods Spirituality/Religiosity Index. Chi-square and t-test analyses were done using SPSS version 19. The prevalence rate of significant psychological distress among physicians was 19.05%. The physicians' specialty of practice fell short of statistically significant association with religiousness ( $X^2=9.02$ ,  $p=0.06$ ). There was no significant association between physicians' state of health and religiousness. Psychological distress is fairly common among physicians and shows no relationship with religiousness.

**KEY WORDS:** *Physician; Psychological distress; Religiousness; Religious affiliation*

#### INTRODUCTION

Although physicians have a superior state of health with a lower rate of physical illnesses when compared with the general population<sup>1</sup>, this may not be absolutely true with regards to their mental health. Physicians are known to have a higher likelihood of committing suicide, engaging in alcohol use, being depressed and having marital conflict<sup>2,3</sup>. Survey has found high, and wide variation in the prevalence rate of psychological distress among physicians<sup>4</sup>.

A meta-analysis of 17,940 medical doctors in training revealed the prevalence of depression or depressive symptoms ranging from 20.6 to 40.3%<sup>5</sup>. Across the world, this figure differs from one country to the other and higher results have been reported. For example, a study investigated psychological distress in 172 hospital doctors in

Auckland, New Zealand, using the 12 item- General Health Questionnaire (GHQ-12), and found that 29.1% of the doctors had cases of psychological distress<sup>6</sup>. Elsewhere in the Asian continent, in a national survey carried out among 242 doctors working in the critical unit in Indian hospital, the prevalence of moderate to severe stress level was 40% on GHQ-12 scale (with a mean score of 2) in which the Likert scoring of 0 to 3 (0-1-2-3) was adopted<sup>7</sup>. In another study conducted in Ngaka Modiri Molema, South Africa, it was reported that 51% of the 67 doctors working in different hospitals were subjectively stressed<sup>8</sup>. The Likert scoring format of the same instrument was used in the study, and a score greater than 20 was applied as a cut-off point for distress. In Ibadan, Nigeria, a similarly high rate of psychiatric morbidity (48.4%) was reported among 128 resident doctors when the bimodal scoring style (0-0-1-1) was applied for the four responses in the GHQ-12<sup>9</sup>.

<sup>\*</sup>Correspondence at: Federal Neuropsychiatric Hospital, Benin-City, Edo State, Nigeria. Email: [poppaul2002@gmail.com](mailto:poppaul2002@gmail.com)

A number of factors have been adduced for physicians' poor mental health some of which are as a direct result of the job such as long and busy hours of work, lack of support with increasing expectations, and exposure to traumatic events<sup>2</sup>. Other factors are related to the individual such as an obsessive-compulsive (perfectionist) personality, excessive sense of responsibility and desire to please others, which are commonly identified among physicians<sup>2,3</sup>. It is also salient to note that the risk of mental illness varies with different specialties of practice<sup>10</sup>.

It is important to examine this subject because of the likely deleterious impact poor mental health functioning of doctors may have on patient care<sup>11</sup>. It is therefore not surprising that empirical literature from high-income countries abounds on physicians' mental health. This is not the case in low-income countries like Nigeria. In Nigeria, research of this nature is relevant, considering the heavy burden placed on physicians who are overlabored by the large load of patients as the doctor-patient ratio is abysmally low<sup>12</sup>.

Religiousness is a dimension of religion which measures adherence to traditional religious beliefs and practices, often expressed around a specific community of faith<sup>13</sup>. Religiousness has been repeatedly and substantially shown to be linked with improved psychological health, and lower incidence of psychological distress in non-doctor populations<sup>14-16</sup>. Little data, however, exist on the relationship between physicians' mental health and their religiousness.

Similar findings have been observed in Nigeria among non-doctor population with respect to the positive effect of religiousness on mental health<sup>17,18</sup>. Even though most Nigerians are believed to be religious, one cannot generalize this finding to physicians, who are less likely to be religious compared to most other populations<sup>19</sup>. It is therefore pertinent to study the relationship between physicians' mental health and their religiousness.

In view of the above stated problem, this study was conducted with the aim of screening for psychological distress among physicians from various specialties in Nigeria. Also, the relationship between psychological distress and religiousness was assessed. The result is expected to identify physicians at risk of mental health problems and determine the relevance of religiousness to reported psychological distress. The outcome of this study would ultimately be useful in formulating policy applicable to the care of physicians.

## METHODOLOGY

### Study design, setting and population

This was a cross-sectional multicenter study conducted in two (out of six) geopolitical zones in Nigeria, namely, South-South and South-West. A neuropsychiatric center and a teaching (tertiary) hospital were selected by convenience sampling from each of the two regional zones; thus, a total of four centers were involved in the study. The centers from the South-South region were the Federal Neuropsychiatric Hospital, Benin-City and the University of Benin Teaching Hospital, while the University College Hospital, Ibadan and the Federal Neuropsychiatric Hospital, Abeokuta were selected from the South-West zone.

A purposive sampling was adopted in recruiting participants from these study centers to include participants from the fields of psychiatry, internal medicine, surgery, pediatrics, and obstetrics/gynecology. Participants were made up of both specialists and doctors in training.

### Ethical consideration

Ethical approval was obtained from the Ethics and Review Boards of the Federal Neuropsychiatric Hospital, and University of Benin Teaching Hospital, Benin-City. Informed consent was duly obtained from the medical doctors who participated in the survey, and anonymity was observed in questionnaire administration.

### Collection tools

1. **Demographic/practice-related characteristics data sheet:** This was designed to inquire about details such as age, gender, marital status, religious affiliation, years, region, and specialty/field of practice.
2. **Religiousness:** This was derived from the Religious Behavior sub-scale of the Ironson-Woods Spirituality/Religiosity Index<sup>20</sup>. It has five items and it assesses participation in religious rituals and services. The scale has been validated for use in Nigeria<sup>21</sup> and was found to have an alpha coefficient of 0.94 in this present study. Items are self-rated on a five-point Likert scale ranging from one (strongly disagree) to five (strongly agree). The scores on each item of the questionnaire are summed, and higher scores indicate higher religiousness.
3. **Psychological Distress:** The 12-item general health questionnaire scale developed by Goldberg<sup>22</sup> was used to measure this. The scale enquires whether the respondent has experienced symptoms of depression, anxiety, social dysfunction and loss of self-esteem,

which are indicative of psychological distress. It is a well-validated instrument for detecting current psychological distress in both clinical and community settings in Nigeria<sup>23</sup>. Each item is rated on a four-point scale [less than usual (0), no more than usual (0), rather more than usual (1), or much more than usual (1)].

### Statistical analysis

The data collected were analyzed using the Statistical Package for Social Sciences (SPSS) version 19, with p-value set at <0.05. Prevalence of psychological distress was calculated in percentage. Age was dichotomized using the median score of 34 years. The bimodal scoring style (0-0-1-1) was used for the four responses in the GHQ-12, and a cut-off point of three was adopted to determine cases with psychological distress. Chi-square was used to test the association between psychological distress (GHQ cases) and demographics/practice-related variables. Independent t-test was used (on the other hand), to compare the religiousness level between

physicians with psychological distress and those with none.

### RESULT

One hundred and forty-five of the 231 medical doctors that completed the questionnaires were male (62.8%). The majority (96.4%) were Christians; 139 were married (60.4%); and 191 practiced in the South-South region (83.0%). About one-third (72) of doctors who participated in the study were psychiatrists, while the remaining two-thirds (159) doctors were from the other fields of practice (**Table 1**).

The prevalence of psychological distress (using GHQ cut-off of 3) was 19.05% (44/231). There was no association of the doctors with psychological distress with the socio-demographic and practice-related questions examined. There was no significant difference in the religiosity of physicians who had psychological distress and those without (**Table 2**).

**Table 1: Association between demographic/practice-related characteristics and GHQ cases**

Characteristics	Variables	Psychological distress			Test of association
		Non-cases (n=187)	Cases (n=44)	Total (n=231)	
Gender	Male	115 (79.3)	30 (20.7)	145 (100.0)	$X^2 = 0.68$ P = 0.41
	Female	72 (83.7)	14 (16.3)	86 (100.0)	
Age	<=34	88 (78.6)	24 (21.4)	112 (100.0)	$X^2 = 0.80$ P = 0.37
	>34	99 (83.2)	20 (16.8)	119(100.0)	
Marital status*	Married	116 (83.5)	23 (16.5)	139 (100.0)	$X^2 = 1.52$ P = 0.22
	others	70 (76.9)	21 (23.1)	91 (100.0)	
Religion*	Christianity	175 (82.2)	38 (17.8)	213 (100.0)	$X^2 = 3.10$ P = 0.08
	Others	11 (64.7)	6 (35.3)	17 (100.0)	
Subspecialty	Psychiatry	58 (80.6)	14 (19.4)	72 (100.0)	$X^2 = 9.02$ P = 0.06
	Medicine	28 (77.8)	8 (22.2)	36 (100.0)	
	Surgery	30 (68.2)	14 (31.8)	44 (100.0)	
	Paediatrics	32 (88.9)	4 (11.1)	36 (100.0)	
	O & G	39 (90.7)	4 (9.3)	43 (100.0)	
Region*	South-south	154 (80.6)	37 (19.4)	191 (100.0)	$X^2 = 0.04$ P = 0.84
	South-west	32(82.1)	7(17.9)	39 (100.0)	
Years of practice*	<= 10 years	152 (80.0)	38 (20.0)	190 (100.0)	$X^2 = 0.44$ P = 0.51
	> 10 years	33 (84.6)	6 (15.4)	39 (100.0)	

\*Some data missing

**Table 2: Comparison of physician religiousness between GHQ cases and non-cases**

	GHQ	Mean	SD	t	P
Religiousness	Non-cases	21.41	5.11	1.64	0.10
	Cases	19.93	6.08		

## DISCUSSION

This is the first multi-center study to investigate the prevalence of psychological distress among physicians, which was found to be 19.05%. This figure is higher than the prevalence rate of mental disorders in the general Nigerian population as reported in a large-scale community survey<sup>24</sup>. A standardized assessment scale, Composite International Diagnostic Interview (CIDI), was utilized in that community and lifetime prevalence rates of 3.3% for major depression, and 5.7% for anxiety disorders were found<sup>24</sup>. The higher prevalence rate obtained in this study is understandable because the GHQ instrument is a screening tool which identifies probable cases and not definitive cases of mental disorders. A comparable study among doctors in which a similar instrument was used found a higher rate of 48.4%<sup>9</sup>, though the study was a single-center study, carried out among resident doctors, and adopted a GHQ cut-off point of two, whereas in this study a cutoff point of three was adopted.

The implication of the rate of psychological distress found in the present study is that one out of every five physicians has, probably, psychological distress. It is not surprising because in Nigeria where the ratio of doctor-patient falls heavily short of WHO recommendations, doctors are often overwhelmed with work. This is worrisome because doctors are poor help seekers for treatment. This is, among other things, due to the fear of stigma, difficulty with disclosure, and sometimes possible implications on practice such as fear of losing license<sup>2,25</sup>. These concerns may lead to delay in treatment, which may ultimately negatively affect performance and patient care. It is therefore imperative for physicians to monitor their mental health with great consciousness just as they carefully watch out for their patients' well-being.

The results of this study did not reveal a statistically significant association between psychological distress and any of the variables explored thus indicating that factors such as gender, age, marital status, religious affiliation, region, year, and specialty of practice were not central in determining the psychological distress among physicians. Although there was no significant relationship between psychological distress and area of specialty, it is however noteworthy that doctors in surgery recorded the highest prevalence of distress, while doctors in O&G recorded the least. The order of prevalence of psychological distress across specialty have been inconsistent in research findings. In one study, pediatricians reported the highest distress while doctors in internal medicine reported the least<sup>7</sup>. Another study that shows dissimilarity to the present one was conducted by Yi *et al*, and they

found lower health rating linked to internal medicine and that depressive symptoms among house officers were related to rotation status<sup>10</sup>. However, participants in their study included only house-officers and specialties surveyed were only in general medicine; psychiatry, surgery and O&G were excluded<sup>10</sup>. Religious affiliation and religiousness were not significantly different between physicians with psychological distress and those without. These findings support the reports of Yi and his colleagues, who extensively researched the associations between psychological distress and multiple dimensions of religion such as affiliation, religiousness, religious coping, and spiritual well-being<sup>10</sup>. Only the spirituality index, a construct which is conceptually different from religiousness correlated with higher mental health rating. Spirituality describes the feeling of connectedness that one has with a higher power or consciousness<sup>26</sup>, and because it imbues everyday life with a sense of deeper meaning, it is associated with psychological well-being. Spirituality was however not a focus of present study.

Despite the numerous findings of the positive impact of religiousness on psychological distress in the literature, results of lack of association have also been reported<sup>27</sup>. One aspect of religion, religious orientation, which was not measured in this study, could explain the lack of association. Religious orientation measures one's commitment to religion, and it could be intrinsic or extrinsic<sup>28</sup>. The extrinsic religious orientation, which implies that religious creed is held lightly, or shaped selectively to fit in with other primary needs, is commoner of the two groups in the Nigerian population<sup>29</sup>. This orientation is known to be associated with a spectrum of psychological distress<sup>15</sup> and recommended for research in future.

The study had limitations which should be noted. The GHQ identifies non-psychotic cases with probable psychological distress; hence a diagnostic tool is recommended in future studies. One of the strengths of the study is that it is a multi-center study, but generalizing findings to other regions of the country may be inapplicable, because a convenience sampling method was adopted. Also, physical illness which may increase psychiatric morbidity was not ruled out among the doctors.

Considering the relatively high prevalence of psychological distress identified in the study and the possible attendant inefficiency in clinicians' practice, it is suggested that physicians should constantly and keenly look-out for their mental health and that of their colleagues. At institutional level, hospital administrators should modify the working environment of doctors so that occupationally related stress is minimized, patient

load and work hours are within reasonable and acceptable limits. The reason for this is because uncondusive environment, overtime work and over-labor have been reported to contribute to distress<sup>2</sup>. Moreover, hospital authorities should formulate policies for regular psychological screening of doctors for early detection and appropriate referral of cases identified. Since, it has been noted that stigma, negative career implications and confidentiality serve as barriers to accessing care<sup>2,30</sup>; there should be an avenue where physicians can be made to report psychological issues in confidence and receive treatment with minimal difficulty. Unfortunately, such special services where doctors can be attended to in privacy do not exist in Nigeria. In other climes where it has been implemented, high success in engagement and treatment outcome has been recorded<sup>31</sup>. Instituting a similar program at a national scale will be of help to physicians whose responsibility is to care for others.

## CONCLUSION

The conclusion of the current study is that the prevalence of psychological distress among physicians is 19.05%. Demographics, practice-related variables, and religious factors were not associated with psychological distress among them. Other dimensions of religion may need to be investigated in connection with psychological problems experienced by physicians. Appropriate steps to prevent and treat psychologically distressed physicians were recommended at individual, institutional, and national levels.

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