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## Original Research

### Does Religiosity Influence Attitude to Mental Illness? – A survey of Medical students in a Nigerian University.

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#### Abstract

**Background:** The benefits of religiosity in mental health has been documented in extant literature. However the relationship between religiosity and medical students' attitude to mental illness has not been explored by previous studies. This study aimed to determine the relationship between religiosity and the attitude of medical students in a Nigerian university to mental illness.

**Methods:** Fifth year medical students completed a sociodemographic and career choice questionnaire, Duke University religiosity index (DUREL) and Mental Illness: Clinician Attitude (MICA, medical student version) questionnaires.

**Results:** Fifty four consenting medical students (male=36, female=18) completed the questionnaires. The frequency of religious service attendance (organized religious activity) had a significant negative correlation with the students' attitude to mental illness ( $p=0.021$ ). Female medical students had significantly lower MICA scores, indicating a less stigmatizing attitude to mental illness compared to male students ( $p=0.035$ ).

**Conclusions:** This study suggests that frequency of religious service attendance is an important variable to consider among factors influencing medical students' attitude to mental illness. Findings from this study may be used by future interventions targeted at reducing stigma to mental illness among medical students.

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## INTRODUCTION

Medical students often have negative attitude towards psychiatry as a career and mental illness [1-3]. This attitude may among other factors reflect the widespread negative attitude to mental illness common in their community [4-5].

In Nigeria for example, religious-magical beliefs about the causation of mental illness are common and have been associated with negative and stigmatizing attitudes to the mentally ill [6-7]. It is possible for these highly entrenched sociocultural and religious beliefs in the community to "rub off" on medical students and influence their attitude to mental illness. Even among medical doctors in Nigeria, culturally enshrined beliefs in supernatural causes of mental illness is prevalent [8],

emphasizing the enduring role of sociocultural and religious beliefs in determining attitude to mental illness.

Despite a troubled history between psychiatry and religion [9], a growing body of research have reported the positive impact of religiosity on treatment outcomes among those with mental and even physical health problems [10-14]. While extant research have documented the impact of factors such as personality type, psychiatric clerkship, year of study and gender on the attitude of medical students to psychiatry [1-2, 15], it is not known if religiosity influences attitude to mental illness, at least among medical students.

An investigation into factors that may influence medical students' attitude to psychiatry is important

because they may have implications for recruitment into the specialty. Educational interventions to reduce mental illness stigma targeted at medical students may be more effective than those targeted at doctors who have completed their training because attitudes harden and become more resistant to change as doctors carry on through their career [16-17]. In addition, medical students' attitude to mental illness may influence their roles as future doctors as they provide supervision and guidance to other healthcare professionals through referrals and multidisciplinary teams [16].

Therefore, this study aimed to examine the relationship between religiosity and attitude to mental illness among a sample of medical students in a Nigerian University. The relationships of selected sociodemographic factors with attitude to mental illness were also examined.

## **METHODS**

### *Participants*

Participants were fifth year medical students of Ladoke Akintola University Ogbomoso who had 8 weeks psychiatric clerkship at the department of psychiatry, Ladoke Akintola University Teaching Hospital, from June to July 2012. The psychiatric clerkship consisted of didactic classroom lectures, seminars, bedside teaching and acquisition of practical skills in patient interview as well as case presentations.

### *Instruments*

All consenting medical students completed the following instruments:

1. Sociodemographic and career choice questionnaire: This was designed by the authors to obtain information on respondents' age, gender, religious affiliation and marital status. Respondents also indicated the degree to which they considering a career in psychiatry by choosing one of three options (unlikely, strong possibility, chosen).

2. Mental Illness: Clinicians' Attitudes Scale (MICA, Medical Students' Version) – This is a self-administered questionnaire which assesses the attitude of medical students to mental illness. A person's MICA score is the sum of the scores for the individual items. For items 3, 9, 10, 11, 12, and 16 items are scored as follows: Strongly agree = 1, Agree = 2, Somewhat agree = 3, Somewhat disagree = 4, Disagree = 5, Strongly disagree = 6. All other items (1, 2, 4, 5, 6, 7, 8, 13, 14, 15) are reverse scored as follows: Strongly agree = 6, Agree = 5, Somewhat agree = 4, Somewhat disagree = 3, Disagree = 2, Strongly disagree = 1. The scores for each item are summed to produce a single overall score. A high overall score indicates a more negative (stigmatising) attitude. The

MICA has demonstrated good psychometric properties when used among medical students with an internal consistency (Cronbach's alpha) of 0.79 and test-retest reliability of 0.80 [16]

3. Duke University Religion Index (DUREL) - This is a five-item measure of religious involvement that assesses three major dimensions of religiosity viz organizational religious activity (Question 1), non-organizational religious activity (Question 2), and intrinsic religiosity (Questions 3-5). Each of these dimensions is treated as a separate "subscale" and each subscale assesses a particular aspect of religious practice or religious devotion. Organizational religious activity (ORA) involves public religious activities such as attending religious services or participating in other group-related religious activity (prayer groups, Scripture study groups, etc.). Non-organizational religious activity (NORA) consists of religious activities performed in private, such as prayer, watching religious TV or listening to religious radio. Intrinsic religiosity (IR) assesses the degree of personal religious commitment or motivation [18]. The overall scale has high test-retest reliability (intra-class correlation = 0.91), high internal consistency (Cronbach's alpha's = 0.78–0.91) and high convergent validity with other measures of religiosity ( $r$ 's = 0.71–0.86) [19-20]. In the current study a reliability coefficient (Cronbach's alpha) of 0.726 was obtained.

### *Ethical Considerations*

Approval for the study was given by the Ethics and Review Committee of LAUTECH Teaching Hospital, Ogbomoso, Oyo State, Nigeria. Prior to administering the questionnaires, the students were informed that participation in the survey was voluntary and that their decision to participate or not would not in any way affect their assessment at the end of the clerkship. Anonymity of the responses obtained was ensured by using a special coding rather than names or students' matriculation numbers.

### *Data Analysis*

Data were analysed using SPSS version 17. Proportions are presented using a frequency table. The relationship between total MICA score and gender was examined using student t-test, while the relationship between continuous variables such as age, religiosity subscales and total MICA score was examined using a non-parametric correlation (Spearman's correlation). One-way Analysis of variance was used to examine the relationship between specialty choice and total MICA score. The level of significance for all analyses was set at  $p < 0.05$ .

## RESULTS

Fifty four out of 63 medical students, comprising 36 (66.7%) males and 18 (33.3%) females consented to participate in the study (response rate = 85.7%). The respondents' mean age was 25.26 (SD=1.73), they were all single and were mostly Christians (90.8%). The majority (72.2%) reported that psychiatry was an unlikely career choice. The total MICA scores ranged from 29 – 62, with a mean score of 44.6 (SD= 7.2). Table 1 shows the sociodemographic characteristics of the respondents.

VARIABLE	n(%)
AGE	
Mean (SD) - 25.26 (1.73)	54(100)
GENDER	
Male	36(66.7)
Female	18(33.3)
MARITAL STATUS	
Single	54(100)
RELIGION	
Christianity	49(90.8)
Islam	5(9.3)
PSYCHIATRY AS A CAREER CHOICE	
Unlikely	39(72.2)
Strong Possibility	12(22.2)
Chosen	3(5.6)
MICA Score	
Mean(SD) -	44.6 (7.2)

The frequency of religious service attendance was negatively correlated with stigmatizing attitude to mental illness assessed with the MICA ( $p= 0.021$ ). Female medical students had a significantly more favourable attitude towards mental illness compared to the male students ( $p= 0.035$ ). A subgroup analysis did not show any significant difference in the frequency of religious service attendance between male and female medical students ( $t= -0.972$ ,  $p= 0.335$ ). No significant relationships were found between religiosity and other sociodemographic or career choice variables as shown in Table 2.

## DISCUSSION

The study aimed to examine the relationship between religiosity and attitude to mental illness among undergraduate medical students in Nigeria. The main finding is that of a significant negative correlation between religiosity, specifically frequency of religious service attendance and stigmatizing attitude to mental illness. A number of explanations may be given for this finding.

VARIABLES	Mean MICA Score	test statistic	p-value
Age		$r= 0.03$	0.837
Gender			
Male	46.00	$t = 2.16$	<b>0.035</b>
Female	41.67		
Religion			
Christianity	44.57	$t= 0.05$	0.960
Islam	44.40		
ORA		$r= -0.31$	<b>0.021</b>
NORA		$r= -0.24$	0.084
IR		$r= -0.17$	0.226
Psychiatry as a Career Choice			
Unlikely	44.21	$F = 0.17$	0.853
Strong Possibility	45.33		
Chosen	46.00		

ORA= Organized religious Activity; NORA= Non-Organized Religious Activity; IR= Intrinsic Religiosity; MICA= Mental Illness: Clinician Attitude  
Significant Results are in Bold

First, pathway to care studies in Nigeria have shown that more than half of the patients presenting for psychiatric services had initially contacted spiritual/religious healers [21-22]. Many orthodox religious institutions in Nigeria offer “spiritual treatments” such as fasting and prayer, drinking of holy water, prayer etc. for virtually all ailments including

mental illness [23]. Because they are ubiquitous and easily accessible, such religious institutions are often the first contact for emotionally distraught individuals seeking care. In turn, this may increase the chances of those seeking care in such religious institutions coming in more contact with frequent religious service attenders. As reported by previous studies, this

increased social contact between frequent religious attenders and those with mental illness may engender some degree of empathy and understanding, making them to have a more favourable attitude towards mental illness [24-25]. On the flip side, frequent religious service attendance may actually be a behaviour adopted by very religious people to cope with their own physical or psychological distresses [26-28].

Second, mental illness is often conceptualised by religious individuals in Nigeria as a 'spiritual' phenomenon and like most individuals in the community, they often attribute its cause to a "spiritual attack" [29-30]. Because of their strong belief in the power of spiritual healing, highly religious people are likely to discourage seeking mental health care from a professional [31]. Therefore, like other members of the community, religiously inclined medical students may subscribe more to spiritual treatment than to treatment by a mental health professional [4]. Therefore, their belief in the "spiritual" cause of mental illness may make highly religious individuals more empathic towards a mentally ill person and be less inclined to blame them for their illness, just because they are perceived to be suffering from a spiritual and not a medical problem.

Lastly, the positive attitude of highly religious medical students in this study to mental illness may be a reflection of the basic tenets taught by many religions. Most of the world's major religions encourage their adherents to cultivate qualities such as love, empathy, forbearance, compassion, mercy, care for the sick and needy, which may influence the attitude of religious individuals to mental illness and the mentally ill. For example, religiosity has been found to be positively correlated to display of empathy and has been described as an essential factor that shapes physicians' attitude to their patients [32]. In addition, previous authors have reported that religion encourages the display of compassionate attitudes and behaviours towards others and is an important factor in the religion-health relationship [33].

The significant association between female gender and a favourable attitude to psychiatry obtained in our study corroborates other studies both in Nigeria and elsewhere [1,34]. As suggested by these previous studies, it could be that female medical students have greater empathy towards people with emotional problems than their male colleagues, hence their more favourable attitude. However, further studies would be needed to substantiate this conclusion.

The findings of this study should be interpreted in the light of a number of limitations. The small sample size obtained through a convenience sampling and the conduct of the study in just one medical school raises

the possibility of selection bias and limits the generalization of the results to medical students in other Universities in Nigeria. In addition, the positive attitude to mental illness found among this sample of medical students may not be enduring while other potential confounding factors such as role modelling, personality etc. were not also accounted for in the study. These limitations notwithstanding, investigating the relationship between an under-researched variable (religiosity) and medical students' attitude to mental illness is a strength of this study.

## CONCLUSION.

While further research is needed to identify additional correlates and mediators between religiosity, specifically the frequency of religious service attendance and positive attitude to mental illness, the result of this study shows that religiosity is an important factor to consider when determining factors affecting the attitude of medical students to psychiatry. Highly religious medical students are potential groups that may be included in interventions targeted at reducing the stigma of mental illness.

## REFERENCES

1. Adebawale TO, Adelufosi AO, Ogunwale A, Abayomi O. The impact of a psychiatry clinical rotation on the attitude of Nigeria medical students to psychiatry. *Afr J Psychiatr*. 2012; 15: 185-188.
2. Malhi GS, Coulston CM, Parker GB, Cashman E, Walter G, Lampe LA, Vollmer-Conna U. Who picks psychiatry? Perceptions, preferences and personality of medical students. *Aust N Z J psychiatry* 2011; 45(10): 861-70.
3. Budd S, Kelley R, Day R, Variend H, Dogra N. Student attitudes to psychiatry and their clinical placements. *Med Teaching*. 2011; 33(11): e586-92
4. Adewuya A, Makanjuola R. Preferred treatment for mental illness among Southwestern Nigerians. *Psychiatr Serv*. 2009; 60(1): 121-124.
5. Gureje O, Lasebikan VO, Ephraim-Oluwanuga O, et al. Community study of knowledge of and attitude to mental illness in Nigeria. *Br J Psychiatry*. 2005; 186: 436-441
6. Gureje O, Olley BO, Ephraim-Oluwanuga O, Kola L. Do beliefs about causation influence attitudes to mental illness? *World Psychiatry*. 2006; 5(2): 104-107.
7. Audu IA, Idris SH, Olisah VO, Sheikh TL. Stigmatization of people with mental illness among inhabitants of a rural community in northern Nigeria. *Int J Soc Psychiatry*. 2011 Nov 29. [Epub ahead of print]
8. Adewuya AO, Oguntade AA. Doctors' attitude towards people with mental illness in Western Nigeria. *Soc Psychiatry Psychiatr Epidemiol*. 2007 Nov;42(11):931-6.
9. Pargament KI, Lomax JW. Understanding and addressing

- religion among people with mental illness. *World Psychiatry*. 2013 (12): 26-32.
10. Robinson JA, Bolton JM, Rasic D, Sareen J. Exploring the relationship between religious service attendance, mental Disorders, and suicidality among different ethnic groups: results from a Nationally representative survey. *Depress Anxiety*. 2012; Jul 11. doi: 10.1002/da.21978.
  11. Pitel L, Geckova AM, Kolarcik P, Halama P, Reijneveld SA, van Dijk JP. Gender differences in the relationship between religiosity and health-related behaviour among adolescents. *J Epid Comm Health*. 2012 May 8. [Epub ahead of print]
  12. Kasen S, Wickramaratne P, Gameroff MJ, Weissman MM. Religiosity and resilience in persons at high risk for major depression. *Psychol Med*. 2012; 42(3): 509-19.
  13. Dowshen N, Forke CM, Johnson AK, Kuhns LM, Rubin D, Garofalo R. Religiosity as a protective factor against HIV risk among young transgender women. *J Adol Health*. 2011; 48(4): 10-4.
  14. Schnall E, Wassertheil-Smoller S, Swencionis C, Zemon V, Tinker L, O'Sullivan MJ, Van Horn L, Goodwin M. The relationship between religion and cardiovascular outcomes and all-cause mortality in the Women's Health Initiative Observational Study. *Psychol Health*. 2010; 25(2): 249-63.
  15. Ndeti DM, Khasakhala L, Ongecha-Owuor F, Kuria M, Mutiso V, Syanda BA, et al. Attitudes toward psychiatry: A survey of medical students at the University of Nairobi, Kenya. *Acad Psychiatr*. 2008; 32: 154-59.
  16. Kassam A, Glozier N, Leese M, Henderson C, Thornicroft G. Development and responsiveness of a scale to measure clinicians' attitudes to people with mental illness (Medical student version). *Acta Psychiatr Scand*. 2010; 122: 153-61
  17. Smith JK, Weaver DB. Capturing medical students idealism. *Ann Fam Med* 2006;4(Suppl. 1):S32-S37.
  18. Koenig HG, Bussing A. The Duke University Religion Index (DUREL): A five-item measure for use in epidemiological studies. *Religions*. 2010; 1: 78-85
  19. Plante TG, Vallaey CL, Sherman AC, Wallston KA. The development of a brief version of the Santa Clara Strength of Religious Faith Questionnaire. *Pastoral Psychol*. 2002; 50: 359-68.
  20. Storch EA, Strawser MS, Storch JB. Two-week test-retest reliability of the Duke Religion Index. *Psychol Rep*. 2004; 94: 993-994.
  21. Agara AJ, Makanjuola AB. Pattern and pathway of psychiatric presentation at the outpatient clinic of a neuropsychiatric hospital in Nigeria. *Niger J Psychiatr*. 2006; 4:
  22. Ogun OC, Owofeye OA, Dada MU, Okewole AO. Factors influencing pathway to child and adolescent mental health care in Lagos, Nigeria. *Niger J Psychiatr*. 2009; 7: 16-20.
  23. Agara AJ, Makanjuola AB, Morakinyo O. Management of perceived mental health problems by spiritual healers: a Nigerian study. *Afr J Psychiatr*. 2008; 11: 113-8.
  24. Clement S, van Nieuwenhuizen A, Kassam A, Flach C, Lazarus A, de Castro M, McCrone P, Norman I, Thornicroft G. Filmed v. live social contact interventions to reduce stigma: randomised controlled trial. *Br J Psychiatry*. 2012; 201(1): 57-64.
  25. Corrigan PW, Rowan D, Green A, Lundin R, River P, Uphoff-Wasowski K, et al. Challenging two mental illness stigmas: personal responsibility and dangerousness. *Schizophr Bull*. 2002; 28: 293-309
  26. Winter U, Hauri D, Huber S, Jenewein J, Schnyder U, Kraemer B. The psychological outcome of religious coping with stressful life events in a Swiss sample of church attendees. *Psychother Psychosom*. 2009; 78(4): 240-44.
  27. Rosmarin DH, Krumrei EJ, Andersson G. Religion as a predictor of psychological distress in two religious communities. *Cogn Behav Ther*. 2009; 38(1): 54-64.
  28. Prado G, Feaster DJ, Schwartz SJ, Pratt IA, Smith L, Szapocznik J. Religious involvement, coping, social support, and psychological distress in HIV-seropositive African American mothers. *AIDS Behav*. 2004; 8(3): 221-35.
  29. Eaton J, Agomoh OA. Developing mental health services in Nigeria: The impact of a community-based mental health awareness programme. *Soc Psychiatry Psychiatr Epidemiol* 2008; 43: 552-8.
  30. Uwakwe R. The views of some selected Nigerians about mental disorders. *Niger Postgrad Med J*. 2007;14(4):319-24
  31. Trice PD, Bjorck JP. Pentecostal perspectives on causes and cures of depression. *Professional Psychology: Res Pract*. 2006; 37: 283 - 94
  32. Pawlikowski J, Sak JJ, Marczewski K. Physicians' religiosity and attitudes towards patients. *Ann Agric Environ Med*. 2012. 20; 19(3): 503-7.
  33. Steffen PR, Masters KS. Does compassion mediate the intrinsic religion-health relationship? *Ann Behav Med*. 2005; 30(3):217-24
  34. Reddy JP, Tan SMK, Azmi MT, Shaharom MH, Rosdinom R, Maniam T, et al. The effect of a clinical posting in psychiatry on the attitudes of medical students towards psychiatry and mental illness in a Malaysian medical school. *Ann Acad Med Singapore* 2005;34: 505-510.