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Relationship between spirituality and socio-demographic factors in an African population.

Anifat B. Ibraheem¹, Waheed A. Ibraheem²

¹Department of Family Medicine, University College Hospital, Ibadan, Oyo State, Nigeria ²Department of Ophthalmology, Ladoke Akintola University Teaching Hospital,Ogbomoso,Oyo State, Nigeria.

ABSTRACT

Background: Spirituality is an important aspect of life that is not often addressed in modern day medical practice. This is related to the lack of clarity about the nature of the concept. However, its role in research is being revisited because of its ever greater importance. Purpose: To determine the relationship between spirituality and social demographic characteristics of the adult patients. Methods: In a hospital-based descriptive cross sectional study, 422 randomly selected eligible and consenting adult patient were recruited using interviewer administered questionnaire. Results: Four hundred and twenty-two respondents were studied consisting 270 (64.0%) females and 152 (36.0%) males. Their age ranged from 19 to 85 years with a mean \pm SD of 42.8 \pm 15.9 years. The mean spirituality score \pm SD was 125.7 \pm 12.1. The mean spirituality score \pm SD was significantly higher in the females, married, and older (\geq 40 years) respondents compared with their respective counterparts (126.5 \pm 10.2 versus 124.0 \pm 15.2, t=2.032, p=0.043, 127.1 \pm 11.6 versus 124.1 \pm 15.2 p= 0.014 and 125.4 \pm 13.3 versus 124.6 \pm 10.6, p= 0.160 respectively).For every one year increase in age, there is an attendant 0.087 unit increment in the spirituality score of the respondents (95% Cl=0.013 to 0.161, p=0.022). Conclusion: The study revealed that social demographic factors are independent predictors of spirituality.

Key words: Age, Gender, Social class, Spirituality.

INTRODUCTION

Spirituality can be defined as a belief in a higher being, the search for meaning, and a sense of purpose and connectedness.¹ It entails the ways people fulfill what they hold to be the purpose of their lives.¹ The importance of spirituality on the health of an individual has been exemplified by the expansion of traditional bio-psycho-social model of health to include spirituality. Hence, the new model of health recognizes spiritual well-being as an important component of a healthy person.² According to World Health Organization (WHO), health is defined as a dynamic state of complete physical, mental, spiritual and social well-being and not merely the absence of infirmity.³ However, various authors had made attempts to unravel the relationship between spirituality and socio-demographic characteristics of an individual.

Although, the relationship between age and spirituality had been previously studied, there is no common summation.⁴⁻⁶ Miller reported

For Correspondence Mr. Seyed Younes Hosseini (MSc) School of Public Health, Shahid Beheshti University of Medical Sciences, Tehran, Iran E-mail: hoseiniyo@ymail.com

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high spiritual level among young people and a strong spiritual orientation with a personal connection to the Creator.⁴ The reason given for this was that young people in their developmental stage exhibit higher interest and understanding around issues of life which make them highly spiritual. Similarly, Kyriaki and co-researchers⁵ reported that younger age was a predictor of spirituality because younger people do struggle more with questions about the meaning and the purpose of life.In contradiction to this, Daaleman et al⁷ in 2004 reported that spirituality was an important and necessary part of elderly daily life, and this did agree with the result of gallup poll conducted in 2003 in the U.S.A which also revealed that spiritual commitments increase with aging. It was explained that, younger people are less likely to be spiritually committed than older people because older people have undergone a number of stages of life issues.⁶ Also, older individuals are much likely to be inclined than younger ones to think about mortality; because younger people are more focused on material success than older people.

Opinions varied on the relationship between gender and spirituality.⁸⁻¹⁰ While Stark⁸ posited that gender had no influence on spirituality, Smith et al⁹ reported that women are more spiritual than their men counterparts. They attributed the higher level of spirituality among females to the fact that they are significantly more likely to attend religious services, to regard religious faith as important in shaping daily life, to have made a personal commitment to live life for God, to be involved in a religious youth group, to pray, and to feel close to God.¹⁰ In another related study done by Buchko et al,¹⁰ it was reported that women tend to participate in spiritual practice more often than their male counterpart. In the opinion of Kanis¹¹, the woman's bodily experiences and natural rhythms viz menstruation, pregnancy, birth, and breastfeeding are responsible for the deepened understanding of the theological and spiritual realms of life usually noted.

The relationship between religion and spirituality is complex.^{12,13} Some authors reported that religiosity enhances spirituality, others reported^{14, 15} D'Souza¹⁶ reported that patients that are involved in one form of religion or others tend to have higher level of spirituality with attendant higher coping tendency.

Marital status has been previously reported to have effect on spirituality and spirituality had also been reported to have effect on marital satisfaction.^{6, 17}According to the report of the study done by Oluwole,¹⁷ it was observed that spirituality has positive influence on marital satisfaction and stability. In contradistinction to this, Albeit and Winseman⁶ reported that spirituality is highest among the separated, divorcee and widow and lowest among the single. whereas, Reginald¹⁸ posited that marital status has little or no influence on the level of individual's spirituality.

According to a Gallup poll conducted by Albert and Winseman⁶ in November and December 2003 to gauge the spiritual commitment levels of Americans, it was noted that the level of spiritual commitment tends to drop off as the income of an individual increases. He further explained that, this lower level of spirituality among higher income categories was attributed to the fact that as material conditions of an individual improves, the perceived need for spiritual resources as a coping mechanism tend to decline.

The role of education on spirituality had also been previously investigates. Albert and Winseman⁶ reported a lower level of spiritual commitment among people of higher educational status compared with their counterparts with lower educational status. He noted that the higher the level of education of an individual the higher the likelihood that such an individual will have low level of spirituality.⁶

MATERIALS AND METHODS

This was a descriptive cross-sectional hospital-based study. All consenting adult patients aged 18 years and above were included while non-consenting and acutely ill adult patients were excluded. Recruitment was by simple random sampling technique using computer generated random numbers.

Ethical clearance for the study was obtained from the Hospital Ethical Review Board. Permission was also granted by the Head of Department. Informed and written consent was obtained from each participant prior to data collection. The study was conducted in line with the guidelines outlined by the Helsinki's declaration on human research. Data collection was by means of an interviewer-administered questionnaire.

Personal information which includes the socio-demographic characteristics like age, sex, occupation, educational background and ethnicity. Level of spirituality of the respondents was assessed using spirituality scale questionnaire which is a validated holistic assessment instrument with cronbach alpha coefficient of 0.94, Pearson coefficient of 0.84 and internal consistency of 0.59-0.97. Its psychometric analysis provided strong evidence of its reliability and validity.¹⁹ Spirituality scale is used in this study because it measures all the domains of spirituality, that is, beliefs, intuitions, lifestyle choices, practices, and rituals that represent all human spiritual dimensions. It can also be used for individual with or without religious affiliations unlike the other instruments which deal mainly with the religious aspect of spirituality.¹⁹The scale contains 23- items and it is scored based on Likert scale of 1-6, ranging from strongly disagree to strongly agree. The highest possible score that can be obtained on the 23-item Spirituality scale is 138 and the lowest, 23. It was theorized that scores between 23-60 indicated very low levels of spirituality, 61-91 indicated low spirituality, 92- 117 moderate spirituality, and 118-138 suggested high levels of spirituality.⁷⁶ However, for this study with(N=422) the calculated Cronbach's alpha was 0.871 which is similar to a previously reported value.¹⁹ The respondents were allocated into social classes (I-V) according to their occupation using the classification described by British registrar general.²⁰

Data Management

The administered questionnaires were sorted out and coded serially on a daily basis and analyzed using statistical package for social sciences) software version 17. Frequency tables were generated for relevant variables after cleaning the data. Continuous variables were summarized using mean and standard deviation while categorical variables were summarized with proportions. The highest possible score obtainable on the 23-item spirituality scale was 138 and the lowest was 23. The mean spirituality score was obtained and the association between the score and other variables were determined using student t-test and Analysis of variance (F-test) where applicable. The mean spiritual score was compared across categories of socio-demographic variables. Multiple linear regression was used to model spirituality scores on variables that were significant on t-test and F-test. Regression coefficients and their 95% confidence interval (CI) were reported. Data were presented in tables, figures and charts. The level of statistical significance (p) was set at 5%.

RESULTS

In this study a total of 422 adults patients aged 18 years and above who satisfied the inclusion criteria were recruited. There were 270 (64.0%) females and 152 (36.0%) males in the studied population, with a female to male ratio of 1.8: 1.The age range of the respondents was 19 to 85 years with a mean age of 42.8 \pm 15.9 years. However, a higher proportion (51.0%) of the respondents was aged 40 years and above.

Majority 287(68%) of the respondents were married. Of this, 210 (73.2%) was of monogamous family setting and the remaining 77 (26.8%) belonged to polygamous family setting. The least proportion 4 (0.9%) of the respondents was divorced. Majority 353 (83.7%) of the respondents were of Yoruba descendant. The remaining respondents belonged to Igbo 35 (8.3%), Hausa 17 (4.0%) and other minority ethnic groups 17 (4.0%).

Majority 284 (67.3%) of the respondents had formal education while 138 (32.7%) had no formal education. However, of the 284 (67.3%) with formal education, the highest proportion 119 (41.9%) had secondary school education.

The social classification of the respondents revealed that the highest proportion 147 (34.8%), belonged to social class V while the least proportion 27 (6.0%) was in social class IV.

The respondents' monthly income ranged from N 1,000 to N 480,000 (\$ 6.58 to \$ 3157.89) with median income of N14,000 (\$ 92.11). During the period of this study a dollar was N152.00, however, using the World bank poverty line of \$1.25 a day (\$37.5 in a month=N5, 700) being used as poverty line for developing countries, majority 226(53.6%) of the respondents were above poverty level.⁸³ The detailed socio-demographic characteristics of the respondents are as shown in Table 1.

The spirituality level of the respondents was assessed using spirituality scale questionnaire. Based on the total score by each respondents majority 389 (83.9%) of the respondents had a high level of spirituality followed by moderate 28 (14.9%), while 3 (0.7%) had low level and only few 2 (0.5%) had very low spirituality level.

Although, the mean spirituality score was marginally higher in the respondents aged 40 years and above when compared with their counterparts who were less than 40 years of age (127.1 \pm 11.6 versus 124.1 \pm 12.8 respectively). This difference was statistically significant (p= 0.014). The female respondents had a higher mean spirituality score when compared to their male counterparts (126.5 \pm 10.2 versus 124.0 \pm 15.2). The difference was statistically significant (p=

Table 1: Socio-demog respondents	groups	Table 2: Spirituality scores of various socio-demograp groups					
Variable	(N= 422) n	%	Variable	Mean ±SD	N=422 N	Statistical value	p va
Age (years)			Age (years)	•		
< 30	104	24.6	< 40	124.1±12.8	207	t=2.480	0.0
30-39	103	24.4	≥40	127.1±11.6	215		
40-49	74	17.5	Sex				
50-59	63	15.0	Male	124.0±15.2	152	t=2.032	0.0
≥ 60	78	18.5	Female	126.5±10.2	270		
Sex			Education				
Female	270	64.0	None	125.9±15.1	65	F=0.418	0.
Male	152	36.0	Primary	126.0±11.1	46		
Education			Secondary	126.4±9.9	122		
None	138	32.7	Tertiary	124.9±12.9	189		
Primary	100	23.7	Marital statu	IS			
Secondary	119	28.2	Single	124.6±10.6	94	F=1.840	0.
Tertiary	65	15.4	Married	125.4±13.3	287		
Social class			Others	129.0±7.0	41		
I	81	19.2	Ethnicity				
II	121	29.0	Hausa	125.9±13.3	17	F=0.104	0.
ш	46	11.0	lbo	125.1±10.7	35		
IV	27	6.0	Yoruba	125.7±12.6	353		
V	147	34.8	Others	124.2±7.9	17		
Marital status			Religion				
Single	94	22.3	Christianity	124.7±12.5	254	t=1.838	0.
Currently Married	287	68.0	Islam	126.9±11.8	168		
Divorced	4	0.9	Monthly inc	ome			
Separated	7	1.7	≥ 5,700	125.2±12.1	226	t=0.819	0.4
Widowed	30	7.1	< 5,700	126.2±12.2	196		
Ethnicity			*p=statistically si	gnificant at 5% lev	/el of significance	2	
Yoruba	353	83.7					
lbo	35	8.3	Table 3: Mu	ıltiple linear ı	rearession of	spirituality	score
Hausa	17	4.0	significant v				
Others	17	4.0	Variable		Standard	95% CI	p va
Religion				coefficient (β)	error for β	for β	
Christianity	254	60.2	Age last	0.087	0.038	0.013 -	0.02
Islam	168	39.8	birthday			0.161	
Monthly Income(Naira	-	52.6	Sex (Female)	2.720	1.225	0.313 -	0.02
≥ 5,700	226	53.6			evel of significan	5.128	

0.043). For the educational status of the respondents, there was an initial increasing trend in the mean spirituality score as the educational status of the respondents increased from no formal education through primary to secondary educational level. However, there was a sharp decline in the spirituality score with further education with the respondents with tertiary educational status having the lowest mean spirituality score. However, this was not statistically significant (p=0.740). Furthermore, the mean spirituality score was found to be marginally higher for married respondents compared to their counterparts who were single (125.4 \pm 13.3 versus 124.6 \pm 10.6). The difference was not statistically significant (p=0.160). Although, the mean spirituality score of the respondents with lower income

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was slightly higher than that of the respondents with higher income (126.2 \pm 12.2 versus 125.2 \pm 12.1), this difference was also not statistically significant (p =0.413). The other details are as described below:

Table 10 shows regression coefficients and 95% confidence intervals from multiple linear regressions of spirituality scores on significant variables from the previous analysis such as the age,. For every one year increase in age, there was a statistically significant attendant increment in the spirituality score of the respondents by about 0.087 units (95% CI=0.013 to 0.161, p=0.022). Females had a significantly higher spirituality score compared to males (mean difference=2.72, 95% CI for mean difference = 0.313-5.128, p=0.027).

DISCUSSION

Clinical and scientific communities are continually trying to improve the quality of care offered to individuals seeking medical attention. These efforts include improving the existing and developing new interventions vis-a-vis medical equipment, therapeutic and surgical interventions. However, with all of the sophisticated technological advances in medicine today, a relatively overlooked factor has been shown to have a profound impact on health and healing: the strength of an individual's spirituality.¹⁵

There was a female preponderance (64%) with a female to male ratio of 1.8: 1. This is in consistent with a previous finding where women were reported to attend health care services more frequently than men.²¹ The finding also concurred with the report of World Health Organization which stated that men had less inclination to engaging in help-seeking behaviours.²¹ Some of the explanations offered for this finding include the reproductive and other conditions that are specific to female gender, including higher rates of morbidity in women, differences in health perceptions and the reporting of symptoms and illnesses.²²⁻²³ This finding could be due to the fact that women generally have a better health exposure and awareness through attendance of various health programs like antenatal clinic services, immunization and other preventive programs than their male counterparts.

A significant proportion 138 (32.7%) of the respondents had no formal education which may not be unrelated to the dominance of women in the study population. This may be a reflection of gender discrimination that was common in the olden days wherein little attention is paid to female education.

All (100%) the respondents belonged to one form of organized religion or the other in agreement with the finding of Okoh²⁴ who earlier reported that Nigeria is the most religious country in the world with 90% of the population believing in God, praying regularly and affirming their readiness to die on behalf of their belief. However, there was no statistically significant difference in the spirituality of the respondents across the religion affiliations in consonance with the finding of Albert⁸ who reported that Nigerians were spiritual irrespective of the religion affiliations. This high level of religious activity among the respondents may not be unrelated to the poor economic state of the country which makes most of the populace seek for God's assistance and social support through religious activity or for

Among the studied population, majority (83.9%) of the respondents were found to be highly spiritual in consonance with a previous report of a poll among the Nigerians in America where 100% of the respondents were found to be spiritual.²⁴ This finding also agreed with the summatin of Jeri and Lynda that spirituality is inherent in every human being and that everybody is born as a spiritual being.²⁰ This finding may be a true reflection that spirituality is inherent and that majority of Nigerians are spiritual.²⁵

Spirituality was found to be significantly higher among the respondents who were older than 40 years of age compared with those who were younger in keeping with the reports of Albert who stated that spiritual commitments increase as the age increases.⁶The reasons given for this was that elderly people have passed through various challenges of life which made them to be more attuned to the higher power for assistance. Furthermore, the questions of ultimate meaning are more prevalent among older adults compared with the younger people because the latter are more concerned with making their way in the world and are more focused on material success than older adult.⁷ Similarly, in another study by Koenig et al²⁶ it was also noted that, as people age, aspects of spirituality increases and become more important in their lives. However, Kyriaki et al⁵ reported in the contrary and argued that younger age was an independent predictor of spirituality. The finding in this study could be due to the fact that the older respondents had undergone different stages in life, less concerned with mundane things and more conscious about finding meaning to their here after.

Opinions differed as regards the relationship between gender and spirituality. In this study, female respondents were found to have statistically significant higher mean spirituality score compared with their male in contradistinction to the finding of Kyriaki et al⁵ who posited that males are more spiritual than females and LeBron et al²² who also summated that there was no association between level of spirituality and gender. Our finding could be due to the fact that women usually face more natural challenges at home, during monthly menstruation, child birth and during breast feeding exercises. These challenges may make them to be more attuned with the supernatural being.

In this study, although, the respondents who had tertiary education had the lowest spirituality score (124.9 \pm 12.9) compared to other categories of education, there was no significant difference statistically (p=0.740). This result agreed with the report of an earlier author on the effect of education on spirituality.⁸ This finding could be due to the fact that the more educated people tend to find scientific rationale for events that happen to them while the less educated tend to refer every event to God. The latterare less exposed to scientific imaginations and discoveries which make them to rely absolutely on a divine power.

Higher spirituality score was found among the respondents with lower monthly income (\leq N5,700) compared with their counterparts with higher monthly income (>N5,700). Though, the difference was not statistically significant it is in concordance with the finding of Albert who also reported that people of low socio economic class tend to be more spiritual and that the prevalence of spiritual commitment tends to drop off among higher income categories, suggesting that as material conditions improve, the perceived need for spiritual resources as a coping mechanism declines.⁸ Our finding may be a true reflection that people of lower socioeconomic class are more likely to seek for a higher and external supports in the face of challenges because that is the cheapest option they could easily afford.

Although, the spirituality score was higher among the male respondents when compared with the respondents who were single, the difference was not statistically significant. This observed pattern agreed with the finding of Oluwole¹⁷ who earlier reported a higher spirituality level among married people compared with those who were not married. However, this finding contradicts the summation of Albert⁶ who reported a higher spiritual commitment in the singles.⁶ The higher spirituality score obtained among the married respondents in this study could be due to the emotional stress and instability that is often associated with marital challenges such as raising of children which may be instrumental for seeking divine interventions and meaning to life from a higher God. It may also be due to the fact that those who are married are less likely to be inclined to mundane activities and acquisition of worldly.

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