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Full Length Research Article

THE IMPACT OF SPIRITUALITY AND RESILIENCE ON MENTAL DISTRESS AMONG INMATES IN A NORTHERN STATE, NIGERIA

[1]Adepoju O.A., [2]Yakasai B.A., [3]*Abiola T., [4] Raji A., and [5]Udofia O.

[1]Department of Psychiatry, Lagos University Teaching Hospital, Idi-araba, Lagos.
[2]Department of Psychiatry, Barau Dikko Teaching Hospital, Kaduna, Kaduna-State
[3]Department of Medical Services, Federal Neuropsychiatric Hospital, Barnawa, Kaduna-State
[4]Department of Clinical Services, Federal Neuro-Psychiatric Hospital, Yaba, Lagos.
[5]Department of Psychiatry, University of Calabar and University of Calabar Teaching Hospital, Calabar, Cross River-State.

*Corresponding Author's Email Address: abiolatob@yahoo.com +2348036262803

ABSTRACT
The burden of mental illness of inmates in low and middle income countries (LMICs) prisons was higher than in the developed ones. Positive interventions common in reversing the increasing prevalence of inmates' mental distress in developed countries are rare in Nigeria, a LMICs. This study contributed to initiate mental health promotion in Nigerian prisons through studying mediating effect of positive interventions, specifically spirituality and resilience on inmates' mental wellbeing. Mental distress of 63 male inmates of Bida prison, North-centre Nigeria was assessed with GHQ-12. The impact of resilience and spirituality on mental distress was measured by Resilience Scale and brief Spirituality Involvement and Beliefs Scale respectively. The mean age of participants was 27.27years (SD = 1.43years) and 70% of them had mental distress. Variables with statistically significant experience of mental distress were being single and having high mean resilience score. The study demonstrated the impact of marital status, resilience and spirituality on the mental wellness of the participants. This will aid mental health promotion of inmates in Nigeria prisons.

Keywords: Nigerian inmates, Resilience, Spirituality, Mental Distress; Positive Intervention; Mental Health Promotion.

INTRODUCTION

Worldwide review of psychiatric morbidity among inmates of correctional facilities reported increasing prevalence of mental illness. The rate of increase was higher in low and middle income countries (LMICs) than in developed ones (Fazel & Seewald, 2012) thereby suggesting more mental health burden in LMICs correctional facilities. This also pointed to the poor availability of general medical health services not to mention specialized ones like psychiatry. The afore picture is particularly true in a LMIC like Nigeria, with more prison inmates than its' official prisons capacity (Institute for Criminal Research; 2016; Awopetu, 2014). The overpopulation of the prison facilities in Nigeria and its relatedness like proneness to bullying/violence, deprivation of privacy/autonomy, poor social support, less meaningful engagement and fear of present/future security (WHO/ICRC, 2005) when coupled with the dearth of mental health services and specifically forensic professionals (WHO-AIMS, 2006; Ogunlesi *et al.*, 2012) painted a gory observation of the living conditions and overall wellbeing of the inmates. Gorier was the finding all the legislation governing forensic issues are obsolete and that 0.08 beds existed for forensic patients, whose median mental hospital stay was typically 10 years, hereby widening the forensic services availability gap (WHO-AIMS, 2006). All these corroborated findings from previous studies in Nigeria reporting quite a higher mental unwellness among prison inmates (range of 34 % to 67.9 %) (Agbahowe *et al.*, 1998; Ajiboye *et al.*, 2006) compared to general population rate of 5.6 % reported in the Nigerian nation-wide survey of mental health and wellbeing (Gurege *et al.*, 2006).

The reported high prevalence of psychiatric distress in Nigerian prison inmates and the contributory low availability of forensic services both seemed to have demonstrated the inmates' adaptation failure to the three modern interlaced roles of imprisonment – punishment, deterrence and rehabilitation (Tomar, 2013). Such imprisonment adaptation failure had been studied at two levels. First level of study was the prisoners 'imported' variables that make or mar good adaptation to imprisonment (Dhami *et al.*, 2007). These pre-imprisonment characteristics were inmates' pre-prison sociodemographics like age, level of academic achievement, employment status, degree of social support, and drug abusing habit etc. The second level of study for maladaptation to imprisonment purpose was the degree of deprivation from the 'indigenous' security of the correctional facilities' accommodation and the duration of stay in prison. A descriptive grading of imprisonment's deprivation characteristics was minimum, medium and maximum security prisons. Reform to both levels are through interventions specifically integrated into the inmates' imprisonment programs and accommodation that will promote their positive psychiatric assets (Martin *et al.*, 2015; Vailant, 2015; Blazer & Kinghorn, 2015), and consequently boost and sustain the prisoners overall wellbeing and post-release reintegration into the community. Intervention efforts reversing the trend of poor mental wellbeing of inmates in developed countries are a rarity in Nigeria.

Most of the interventions reported in above studies were targeted toward the first level of imprisonment adaptation i.e. inmates' imported variables. However, studies on such interventions that will help to reverse the high rates of psychiatric distress in Nigerian inmates' while also building inmates' characteristic psychiatric assets that will boost and nurture wellbeing in Nigeria inmates are still being awaited. This study contributed to such positive intervening activities by specifically looking at the associative role of spirituality and resilience in mediating mental wellbeing among Nigerian prison inmates.

MATERIAL AND METHODS

Study participants and procedure

This study took place among male inmates of a medium security correctional facility located in Bida, Niger State, North Central

Nigeria. It has a 200 population capacity. The inclusion criteria include inmates who are within 18 and 65years of age, who had been sentenced by the court and who consented to participate in the study. Exclusion criteria were inmates with current diagnosis of a mental disorder, who are outside the ages of 18 and 65 years, and who are awaiting trial. Before the commencement of data collection, ethical clearance to carry out the study was obtained from the Federal Neuro-Psychiatric Hospital, Kaduna Institutional Ethical Review Board. Participants were recruited serially until all those who meet the study's criteria were included. Informed consent was obtained from 63 participants fulfilling the study's criteria, before they were given the study instruments to fill. These consisted of a sociodemographic questionnaire, the 12-item General Health Questionnaire (GHQ), the 25-item Resilience Scale (RS), and the Spiritual Involvement and Beliefs Scale-Revised (SIBS-R). They filled the study instruments at one sitting.

Instruments of Study

Sociodemographic questionnaire

This self-developed questionnaire collects information on the participants' current age, gender, education-year received before imprisonment, marital status during imprisonment, current religious affiliation and duration of imprisonment as at the time of data collection. All these variables apart from the last (i.e. duration of imprisonment) represented some of the inmates 'imported' characteristics that can facilitate or mar good adaptation to the imprisonment. The duration of imprisonment contributed to part of the 'indigenous' characteristics of the effect of the prison environment. The other part of the prison's characteristics which is its' security level was registered in this study as a medium security correctional facility.

General Health Questionnaire 12 (GHQ-12)

The 12-item General Health Questionnaire (i.e. GHQ-12) is a simple, easily understood and the shortest version of the original GHQ 60 developed by David Goldberg (Goldberg, 1972). All the versions of GHQ can distinguish between psychological ill-health and well-being. They specifically measured this by identifying impairments in normal functioning and/or presence of mental distress. In other words, the GHQ can aid in the assessment of the symptoms of anxiety, depression and social dysfunction. The GHQ was initially for use in general medical practices, but has also found application in community surveys. The GHQ-12 has been translated into more than 10 languages and has internal reliability range from 0.78 to 0.95 (Goldberg *et al.*, 1997). In Nigeria, the GHQ-12 has been used in both academic and field studies (Goldberg *et al.*, 1997). In the present study, the GHQ-12 was scored on a bimodal scale with cut-off point of 3 used as the norm. All the respondents with scores less than 3 will be regarded as having no psychological morbidity while those that will score 3 and above will be considered as having psychological/psychiatric morbidity. In the present study, the GHQ was used to measure the inmates' current psychological distress which was expected to be the mental fallout of their imprisonment adaptation.

Resilience Scale (RS)

The Resilience Scale (RS) is a measure of psychological resilience, that is, the capacity to withstand life stressors, and to thrive and make meaning from life challenges. Resilience as construed by Wagnild comprises of 5 essential characteristics of meaningful life (i.e. appreciating and fulfilling the purpose that one lives for), perseverance (i.e. ability to keep going despites adversities), self-reliance (i.e. appreciation of ones strengths and their applicability to support and guide ones actions), equanimity (i.e. capacity to moderate extreme responses to setbacks) and existential aloneness (i.e. coming to term with one's uniqueness that help one to face challenges alone often without support from others) (Wagnild, 2010). The first of these characteristics (i.e. living a meaningful life) was identified as the most important that lays foundation for the other four.

The RS is 25-item scale developed by Wagnild and Young (Wagnild & Young, 1993) and consisted of a factorially defined 17-item "Personal Competence" subscale and an 8-item "Acceptance of Self and Life" subscale for a total of 25 items. The internal consistency of RS fell into the acceptable and moderate-high range of 0.73 to 0.91 (Wagnild & Young, 1993; Wagnild, 2009a; Wagnild 2009b). RS also had fairly good concurrent and discriminant validity with mental health measures of depression, anxiety, morale and life satisfaction (Wagnild & Young, 1993; Wagnild, 2009a; Wagnild 2009b; Abiola & Udofia, 2011). The RS has also been used and validated in Nigeria as well: Cronbach's alpha was 0.87; Pearson's moment correlation coefficient with depression and anxiety were respectively 0.284 and 0.263 and significant; also significant was the discriminant validity of resilience between cases with mental distress and those without (t-test = 2.007; $p<0.05$) (Abiola & Udofia, 2011). The RS is scored on a 7-point likert scale from strongly disagree (1) to strongly agree (7) and neither agree/disagree (4) as the mid score. The possible total outcome score ranged from 25-175 grouping respondents into high, moderate or low resilience. The groupings' outcome interpretations have been applied in both research and clinical settings. In this study, resilience was measured as a modifiable psychological characteristic whose availability should increase inmates' resistance to the consequence of imprisonment maladaptation and at the same time to boost their overall wellbeing. The Cronbach's alpha for this study was 0.77.

Spiritual Involvement and Beliefs Scale-Revised (SIBS-R)

The Spiritual Involvement and Beliefs Scale-Revised (SIBS-R), is a 22-item instrument that was an offshoot of the original 39-item scale (Hatch *et al.*, 1998). It measures various areas of spirituality like meaning, beliefs, acceptance, values, hope, fulfillment, gratitude, meditation, prayer, joy, love, relationship (health-wise and interpersonally), connection to nature, service, spiritual experiences and writings, serenity and spiritual growth. Furthermore, SIBS-R had four factorially described subscales of core spirituality (i.e. the experience of connectedness to one's life purpose), spiritual perspective (i.e. existential depth), spiritual humility (i.e. personal application of spirituality) and spiritual insight (i.e. reflective acceptance of what cannot be changed). SIBS-R has been used by other researchers and found to have good reliability (alpha = 0.83-0.92) (Hyland *et al.*, 2007; Litwinczuk & Groh, 2007, Arevalo *et al.*, 2007). The SIBS-R sum scale concurrent validity with the five religiosity portions of Duke Religiosity Scale (DUREL) from a pooled group ranged from 0.66 to 0.80 (Hatch, 2014). Spirituality as measured in this study should be an adaptive coping variable that when integrated into the imprisonment condition should promote the inmates' overall wellbeing through modifying the following three issues: dealing with guilt, finding a new way in

life and dealing with the loss of freedom (Jiang & Winfree, 2006). The Cronbach's alpha for this study was 0.35.

Data analysis

Data were analysed using IBM-SPSS version 21. Frequency distribution was used to describe the sociodemographic variables of age, gender, marital status, level of education, etc. Measures of central tendency were used to determine the level of spirituality and resilience based on their level of psychological distress. Cronbach's alphas were used to determine the internal consistency of the SIBS-R and RS. Independent t-tests (two-tailed) were used to identify psychological differences by SIB-R and RS with psychological distress. A p-value of less than 0.05, two tailed was set as statistical significance level.

RESULTS

Sociodemographic variables

All the participants were male with an age range of 18 to 49 years and a mean age of 27.27 years (SD = 1.43 years). One third of them (i.e. 33.3 %) had no form of formal education and close to this (i.e. 27.0 %) had formal education of less than 6 years. Close to half of the participants were not married (47.6) and 46 % had spent more than a year in prison (Table 1)

Table 1: Sociodemographics of the Participants (N=63)

Characteristics	Frequency (n)	Percentage (%)
Age		
<20 years	5	7.9
<29 years	36	57.1
<39 years	17	27.0
>39 years	5	7.9
Mean age (SD)	27.27 years (1.43)	
Age range	18 to 49 years	
Years of Formal Education		
Nil	21	33.3
<6 years	17	27.0
>6 years	25	39.7
Marital Status		
Single	30	47.6
Married	33	52.4
Religion		
Christianity	10	15.9
Islam	53	84.1
Duration of imprisonment so far		
<1 year	34	54.0
>1 year	29	46.0

Mental distress

The 12-item General Health Questionnaire screened about 7 out of every 10 participants (i.e. 70 %) as having mental distress (Figure 1 and Table 2). Table 2 also shows that, the participants who were not married experienced more mental distress than those who were married. This observation is statistically significant. Other observations with higher experience of mental distress that were not statistically significant included: being less than 29 years of age, having some years of formal education and having spent more than a year in prison.

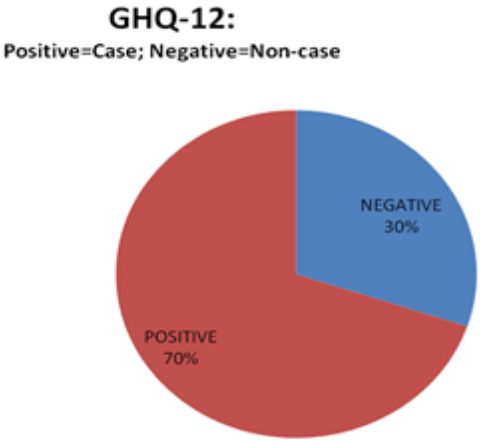

Fig. 1: Prevalence of mental distress among participants

Table 2: Cross-tabulation of Mental Distress with Participants' Sociodemographics

Variables	GHQ-12 Caseness		Test Statistics	
	Negative [n=19 (30.2%)]	Positive [n=44 (69.8%)]	Chi-square	p-value
Age (years)				
<29 years	9 (22.0)	32 (78.0)	3.755	0.053
29 years and above	10 (45.5)	12 (54.5)		
Formal Education in years				
Nil	9 (42.9)	12 (57.1)	2.411	0.120
Some	10 (23.8)	32(76.2)		
Marital Status				
Single	5 (16.7)	25 (83.3)	4.950	0.026
Married	14 (42.4)	19 (57.6)		
Religion				
Christianity	1 (10.0)	9 (90.0)	1.297	0.130*
Islam	18 (34.0)	35 (66.0)		
Imprisonment duration				
<1year	13 (38.2)	21 (61.8)	2.287	0.130
1 year and above	6 (20.7)	23 (79.3)		

*= Yates correction

Group differences in psychological variables

As shown in Table 3, the mean resilience score of the participants was 133.98 (SD=16.14). Surprisingly those with mental distress (RS=136.96) had significantly higher resilience scores (t=2.299; p=0.025) than those without (RS=127.11). Mean spirituality score is 54.30 (SD=9.21). Spirituality is expectedly higher among those without mental distress (SIBS-R=55.95) compared to those with it (SIBS-R=53.59). This observation was however not statistically significant.

Table 3: GHQ-12 caseness with mean scores on resilience and spirituality

Variables	GHQ-12 Caseness		Test Statistics	
	Negative [n=19 (30.2%)]	Positive [n=44 (69.8%)]	t-test	p-value
RS* [mean (SD)]	127.11 (18.07)	136.95 (14.45)	2.299	0.025
Overall mean (SD)	133.98 (16.14)			
Cronbach's alpha	0.77			
SIBS-R** [mean (SD)]	55.95 (10.17)	53.59 (8.80)	0.930	0.356
Overall mean (SD)	54.30 (9.21)			
Cronbach's alpha	0.35			

*=Resilience Scale; **=Spiritual Involvement and Belief Scale-Revised

Conflict of interest: The authors have no conflict of interest to declare, and the work was not supported or funded by any drug company.

DISCUSSION

This study was aimed at looking at the associative role of spirituality and resilience in mediating mental wellbeing among Nigerian prison inmates. The present study found high screen prevalence of mental distress among prison inmates in Northern Nigeria which much higher than in the general population (Gureje *et al*., 2006). This finding was consistent with previous Nigerian studies outcome (Agbahowe *et al*., 1998; Ajiboye *et al*., 2009).[7,8] Furthermore, the finding may also be supporting how Nigerian correctional facilities was far from attaining the third modern main mandate of imprisonment i.e. reformative positive emotional and productive mindset conditioning that prisons should promote and nurture (Tomar, 2013).

Inmates adjustment to imprisonment can be influenced by either their 'indigenous' and/or 'imported' conditioning (Dhami *et al*., 2007). The latter was implied in this study's significant helpful status of being married as a good mental health variable. In other words, this finding might be supporting the purposeful social support role marriage played in the wellbeing of men (Jiang & Winfree, 2006). Furthermore, this 'pre-prison characteristics' as identified by Dhami and colleagues (2007) pointed to the good role marital support played in shaping imprisonment experience toward positive adjustment for the male inmates and purportedly towards their good mental health.

The overall mean resilience of the prison inmates in this study (133.98) was slightly higher than the total mean in a clinical students' study (130.23) (Abiola & Udoifa, 2011) from similar region of Nigeria (i.e. northern Nigeria). But, when mean resilience was compared for specific gender (i.e. males only), there was no difference among the inmates (133.98) and clinical students (132.04). This was probably unexpected. A speculation for this might be that medical training was comparably as stressful as imprisonment in Nigeria. Also, considering that resilience is expected to increase with rise in age (Portzky *et al*., 2010), this comparability appeared faulty as the mean age of the clinical students' study (22.50 years) (Abiola & Udoifa, 2011) was much lower than in this study population (27.27 years). This suggested that resilience might likely be lower among inmates when compared with the non-prison population of similar age group. However, we speculated the most likely interpretation to be that inmates' resilience decreased with aging which was the reverse among the general population (Portzky *et al*., 2010).

Another observation in support of the above will be in the screen prevalence of mental distress which in this study was quite higher than in the medical students' study (Abiola & Udofia, 2011). This further pointed out that the similar resilience mean scores from these two studies were not indicating the same interpretation. Hence, the 'moderate' mean resilience score of these inmates deserves another interpretation from the typical experience of ups and down to that of 'low' resilience reporting more of mental distress and life dissatisfaction. However, because different screening instruments were utilized in assessing the mental distress (i.e. GHQ in this study and HADS [hospital anxiety depression scale] in the comparison clinical students' study) might make to some extent this assertion challenging.

The significant high resilience of inmates with mental unwellness compared to the low resilience of those without mental distress appeared disturbing. It first suggested resilience as having a non-health promoting benefit. But observing that majority of the inmates who had some level of formal education that should promote wellbeing were not enjoying this may offer some explanation. This is because, the resilience and hope that education should bring appeared to have been shattered with imprisonment and may lead to maladaptive coping (Zamble & Porporino, 1998) and possibly consequent mental unwellness. Hence, the high resilience of educated inmates appeared unhelpful when compared to the low resilience of uneducated inmates. However, that the mean difference of mental unwellness difference between those with formal education and those without was not significant make this observation not plausible. Hence, future research should explore this further.

Another variable that might explain the low resilience among inmates without mental distress might be the current imprisonment duration. This was because most of the inmates who were more than a year stay in the prison reported more psychopathology than those who were less than a year-old in the Bida correctional facility. An observation that might be adding more support to the earlier speculation that resilience decreases with increased aging among the prison population and that this might likely be in term of their imprisonment stay so far. But that the duration of stay was also not a significant variable made this assertion similarly not plausible.

The overall mean score of spirituality (54.30) among the study participants was quite smaller when compared to that of the pilot testing among recovering alcoholics (124.80) (Hatch, 2014). This suggested that all our study participants were probably going through spiritual struggles. Such struggles were expected to affect the two components of spirituality (i.e. distant healing and self-care) (Syed, 2003) and often related to challenges in inmates' spiritual values (American Psychiatric Association, 2013), with/without consequent distress (North American Nursing Diagnosis Association. 1999) A distress like this had been described as 'breaking the web of life' (Smucker, 1996) and often understood as any or all of the following: spiritual pain, spiritual alienation, spiritual anxiety, spiritual guilt, spiritual loss and spiritual despair (Kimes, undated). Hence, our study participants might be said not to be well

involved in the intentional mental effort coupled with self-care rituals to improve their wellbeing.

The spirituality mean scores among those without mental distress were higher than in those with distress. Hence, the former group of inmates can be said to have better spiritual involvement that make them to cope with the three spiritual issues of guilt, self-reformation and loss of peace of mind (Clear *et al*., 1992) better than the latter group. However, that the observation was not significant further demonstrated the limited role spirituality played in all the inmates' mental wellbeing as at the time of study.

The present study does have some limitations and these include relatively small sample size, inability to identify the nature of crime being sentenced for, criminogenic characteristics of the participants, 'indigenous' conditioning of the prison environment and the available religious practices that can boost spirituality. Despite these limitations, this study provided the first Nigerian research to attempt to identify positive variables that can reduce mental distress related to imprisonment and perhaps recidivism.

Conclusion

The study identified being unmarried, relatively high resilience and low spirituality among inmates with mental distress. The support of marriage, resilience and spirituality are three phenomena that offer potential for planning and designing positive intervention that would promote and boost the mental health of inmates in Nigerian prisons. It is also hoped that such interventions when implemented will reduce recidivism.

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