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PSYCHOLOGICAL CHARACTERISTICS AS CORRELATES OF EMOTIONAL BURDEN IN INCARCERATED OFFENDERS IN NIGERIA
F.O. Fatoye, BSc, MBChB, FMCPsych, Senior Lecturer / Hon. Consultant Psychiatrist, Department of Mental Health, College of Health Sciences, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria, G.K. Fatoye, RN, RM, RNT, Senior Nurse Tutor, School of Nursing, Obafemi Awolowo University, Teaching Hospitals Complex, Ile-Ife, Osun State, Nigeria, A.O. Oyebanji, BSc, MBChB, MPH, Principal Medical Officer and A.S. Ogunro, RN, RPN, Principal Nursing Officer, Nigeria Prisons Hospital Service, P.M.B. 5019, Ilesa, Osun State, Nigeria

Request for reprints to: Dr. F.O. Fatoye, Department of Mental Health, College of Health Sciences, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria

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F.O. FATOYE, G.K. FATOYE, A.O. OYEBANJI and A.S. OGUNRO

ABSTRACT

Objectives: **To evaluate the demographic and psychosocial characteristics of incarcerated offenders in a Nigerian prison and investigate their relationship with psychiatric morbidity.**

Design: **A cross-sectional study employing the 30 – item version of the General Health Questionnaire (GHQ-30) and the depression sub-scale of the Hospital Anxiety and Depression scale (HADS-Depression).**

Setting: **A medium security prison located in Ilesa, a semi-urban community in Southwestern Nigeria.**

Subjects: **Three hundred and three prison inmates.**

Results: **Out of the 352 inmates, 49 (13.9%) refused to participate in the study. There was a preponderance of male offenders (96.4%), and majority (59.3%) was awaiting trial. Thirteen inmates (4.3%) had been imprisoned before (i.e., before current imprisonment). Less than half (34%) reported enjoying good mental health in prison while 11 (3.7%) gave history of previous mental disorder before imprisonment. Majority reported the level of visitation and financial assistance by relatives and friends as poor. Also, majority reported prison accommodation and feeding as poor while less than a half of the sample were satisfied with the level of available health care. Majority of the inmates scored above the cut-off points on the measures of psychopathology. These were 87.8% and 85.3% on the GHQ - 30 and the HADS - Depression Sub-scale respectively. Significant relationship was observed between GHQ-30 'caseness' and awaiting trial status, and also with reporting current mental health; prison accommodation and prison feeding as poor. In addition, significant depressive symptoms were associated with being a Muslim or traditional religion worshipper; lower education; single, divorced or separated marital status, and appraisal of current mental health as poor.**

Conclusion: **The results are largely similar to findings from the developed world. Improving living condition and provision of basic needs of the prisoners appear essential for the promotion of their mental health.**

INTRODUCTION

Going by previous observations in the developed world, mental disorder is the most significant source of morbidity among prisoners. Mental health problems have been observed to be higher among incarcerated inmates compared to the general population (1,2). Common mental health problems amongst them include substance misuse, personality disorders and minor (neurotic) symptoms (3-9). With these disorders estimated to be present in 25 to 75% of prisoners, they are more common than the psychotic disorders, which have been estimated to account for 2 to 10% of psychiatric morbidity amongst them (2,4,5,10,11). However, the psychotic disorders have also been observed to be more common among inmates compared to the general population. In addition, the frequency of psychosis tends to be higher in hospital-based studies and the prison condition has been identified as a potential source of rapid deterioration in those with pre-existing psychosis and decompensation in vulnerable inmates (2,8,12).

Although, in many countries, prison establishments are struggling to provide minimal mental health services to prisoners, and only a few have exposure to psychiatrists (9,13), prisons are replacing mental hospitals as the preferred place for mentally disordered persons (11). Consequently, prisoners don't enjoy equal rights to quality services compared to community residents. In most countries, prison systems shoulder the burden of providing health care services - a responsibility, which they are ill-equipped to perform due to limited resources and the ever-increasing number of inmates. In England for instance, this situation persisted for up to 50 years after the establishment of the National Health Service (NHS) before prisoners health care service was eventually integrated into the NHS. Even with the integration, its provisions for mentally disordered prisoners have been observed to be inadequate (8,14).

These observations, mostly from the developed world, have far - reaching implications for the mental health of prisoners in developing countries. Compared to the health systems in industrialised countries, the health systems in developing countries is poorly organised and poorly funded. Going by the experience of the authors at a medium security prison in Nigeria, these shortcomings are more pronounced in the prison system. In many developing countries, health insurance scheme is either non-existent or at its infancy. Where such schemes exist, one may assume that integration of prison health care services would take several years to materialise. In this context, developing countries ought to take remedial steps which there economies can accommodate at the moment. Formulation of preventive strategies based on data obtained on imprisoned persons would be helpful and cheap on the short run, and could sensitise policy makers to start planning culturally appropriate psychotherapeutic programmes on the long run.

The present study was conducted to identify inmates factors, cultural and interpersonal factors, and factors within the prison system which are possible determinants of psychiatric morbidity among prisoners in Nigeria.

MATERIALS AND METHODS

The study was conducted among inmates of a medium security prison in Ilesa, a semi-urban community in southwestern, Nigeria. The study took place between January and March 2006.

Procedure: Permission of the prison authority was obtained. In addition, co-operation of medical and paramedical staff of the prison was obtained. The research assistants (post-graduate doctors and prison paramedical staff) were trained on the survey inventories and on their administration. All the inmates residing at the particular wing of the prison to be evaluated on each day were approached for consent. All inmates who gave consent to participate in the study were evaluated individually in their 'cells'. The objectives of the study were explained and each respondent was assured that the information supplied would not be used against him / her. Apart from the information obtained through the inventories, additional information was obtained on each respondent from the prison register.

The questionnaire consisted of a section detailing socio-demographic characteristics of the respondents (sex, age, marital status, religion, employment, education and state of origin) . Another section elicited information on imprisonment and prison condition (i.e., nature of offence, imprisonment status - awaiting tria

l or sentenced, duration of incarceration, previous imprisonment, respondents' assessment of prison accommodation, food and available health care). Other items included support variables (visitation by relatives and friends and level of financial support to meet minimal needs), and respondents' mental health variables, which included self-reported current mental health status and previous history of mental disorder.

The mental health status of the respondents was evaluated by two standardised instruments - the 30 - item General Health Questionnaire (15) and the Depression Subscale of the Hospital Anxiety and Depression Scale (16). The 30-Item General Health Questionnaire (GHQ - 30) is a self - rated screening instrument for psychiatric morbidity. It has been widely used in Nigeria, with scores of 5 and above denoting probable presence of psychiatric morbidity on the instrument, which has a possible total score of 30 (17). The Hospital Anxiety and Depression Scale (HADS) is also a self -administered screening questionnaire for anxiety and depressive symptoms. The depression subscale (HADS-Depression) consists of seven items, each rated on a 4-point scale, with maximum score of 21, and with higher scores denoting higher disturbance. The HADS has also been widely used in Nigeria. On the depression subscale, a minimum score of 8 is required to indicate presence of significant depressive symptoms (18).

Data analysis: The proportions of the inmates identified as 'cases' on the GHQ -30 and the HADS'– Depression were estimated. The relationships between symptoms and socio-demographic variables, confinement variable, support and self-reported mental health status (current and previous) were determined.

RESULTS

Three hundred and three out of a total of 352 inmates comprising 292 (96.4%) males and 11(3.6%) females completed the questionnaire. The youngest was 15 years old while the oldest was 70 years old with a mean of 31.2 ± 9.7 years. Other demographic, clinical and prison - related variables are shown in Table 1. There was a preponderance of subjects belonging to the age-group 30 years and below (59.3%) compared with older age groups. There was also a preponderance of Christians over Muslims, and of subjects belonging to the Yoruba ethnic group (80.9%). Almost all the respondents (99.7%) were Nigerians. Majority of the respondents were awaiting trial (81.3%); reported negative previous history of mental disorder (96.3%); assessed their feeding in the prison as poor (78.3%), and assessed prison accommodation as poor (79.3%). Also, majority rated visitation by family members and friends as poor (52.5%) while more respondents rated the level of available financial assistance as nil (34.7%) and poor (39.7%). Most of the respondents were first offenders (95.7%). The respondents were almost evenly distributed between single (43.5%) and married (49.5%) status, and with respect to their self – reported current mental health status, which was rated as poor by 33%, fair by 33% and good by 34%. Most of the respondents attained primary (34.3%) and secondary (44.7%) school levels of education, with only a few attaining tertiary education (i.e., higher education at institutions such as polytechnics and universities) or receiving no formal education. In addition, the highest proportion of respondents (47%) reported the level of health care available to them since confinement as poor, followed by 44.4% of the respondents who rated it as fair. Only a small proportion (8.7%) reported the level of health care as good.

The mean GHQ – 30 score was 12.95 ± 7.13, with minimum score of 0 and maximum score of 30. Also, the mean HADS - Depression subscale score was 11.56+4.13 with minimum score of 0 and maximum score of 21. Table 2 shows the distribution of the respondents based on the cut-off points on the GHQ-30 and the HADS -Depression subscale. The GHQ-30 picked 260 (87.8%) respondents with possible psychiatric morbidity while 36 (12.2%) were negative. The HADS – Depression subscale picked 256 (85.3%) inmates with clinically significant depressive symptoms with only 44 (14.7%) inmates not falling within this range.

The relationships between psychiatric morbidity and sixteen variables (demographic, clinical and prison – related) are shown in Table 3. Significant associations were observed between being a 'GHQ-30 case' and four variables. These include prisoners' assessment of prison accommodation as poor ($p<0.001$), awaiting trial as opposed to being a sentenced prisoner ($p<0.001$)' prisoners' perception

of level of available health care as low (p<0.009) and prisoners' self-reported current mental health functioning as poor (p<0.39). All demographic variables and others investigated variables were not significantly related to GHQ-30 'caseness'.

Self-reported poor mental health status (P<0.040) and three demographic variables were observed to be significantly related to depressive symptoms. The three demographic variables include religion, marital status and level of education. Prisoners who belong to other religions (traditional religions) and Muslims had significantly higher proportions with significant depressive symptoms than Christians (P<0.019). Also, prisoners who were divorced / separated and those who were single had higher proportions with significant depressive symptoms than those who were married. In addition, the lower the level of educational attainment, the higher the proportion of respondents with significant depressive symptoms (p<0.049).

Table 1

Socio-demographic and some imprisonment -related variables among the prison inmates

Variable	No.	(%)
Sex (n = 303)		
Male	292	96.4
Female	11	3.6
Age group (years) (n = 285)		
≤30	169	59.3
31–40	78	27.4
41–50	20	7.0
>50	18	6.3
Marital status (n = 299)		
Single	130	43.5
Married	148	49.5
Divorced / Separated	21	7.0
Religion (n = 303)		
Christianity	215	71.0
Islam	84	27.7
Others	4	1.3
Education (n = 303)		
Nil	18	6.0
Primary	103	34.3
Secondary	134	44.7
Tertiary	45	15.0
Tribe (n = 303)		
Yoruba	245	80.9
Igbo	21	6.9
Others	37	12.2
Nationality (n = 303)		
Nigerian	302	99.7
Togolese	1	0.3
Imprisonment status(n = 300)		
Awaiting trial	244	81.3
Sentenced	56	18.7

Table 1 (*continued*)

Variable	No.	(%)
Previous mental disorder (n = 300)		
No	289	96.3
Yes	11	3.7
Self-reported mental health (n = 291)		
Poor	96	33.0
Fair	96	33.0
Good	99	34.0
Prison feeding (n = 299)		
Poor	234	78.3
Fair	53	17.7
Good	12	4.0
Prison accommodation (n = 299)		
Poor	53	17.7
Good	9	3.0
Prison health care (n = 285)		
Low	140	47.0
Average	132	44.3
Good	26	8.7
Visit by family / friends (n = 299)		
Nil / Low	157	52.5
Average	114	38.1
Adequate	28	9.4
Financial support (n = 300)		
Nil	104	34.7
Poor	119	39.7
Average	51	17.0
Adequate	26	8.6
Previous imprisonment (n = 285)		
No	288	95.7
Yes	13	4.3

Table 2

Distribution of the prison inmates by GHQ–30 and HADS–Depression subscale scores

GHQ–3 / HADS-Depression (n = 296)	No.	(%)
Negative (≤4)	36	12.2
Positive (≥5)	260	87.8
HADS–Depression score (n = 300)		
Negative (≤7)	44	14.7
Positive (≥8)	256	85.3

Table 3

Relationship between psychiatric morbidity (GHQ-30 and HADS-Depression Subscale 'caseness') and demographic, clinical and some imprisonment-related variables

Variable	df	GHQ-30 'caseness'		HADS–Depression 'caseness'	
		X^2	P	X^2	p
Sex	1	1.43	0.231	0.28	0.594
Age group	3	1.69	0.640	0.34	0.953
Marital status	2	0.16	0.921	6.27	0.044
Religion	2	4.48	0.106	7.90	0.019
Education	3	4.90	0.180	7.87	0.049
Type of offence	1	0.14	0.712	1.23	0.267
Imprisonment status	1	24.43	<0.001	2.94	0.087
Duration of imprisonment	3	0.67	0.887	6.39	0.094
Visits by family / friends	2	2.42	0.299	4.44	0.108
Financial support	3	2.51	0.473	1.91	0.591
Previous imprisonment	1	1.91	0.167	0.53	0.467
Previous mental disorder	1	0.38	0.540	0.11	0.741
Prison accommodation	2	16.01	<0.001	5.63	0.060
Prison feeding	2	1.08	0.582	3.44	0.179
Prison health care	2	9.33	0.009	0.03	0.986
Self-reported mental health	2	6.46	0.039	6.42	0.040

DISCUSSION

Out of a total of 352 inmates of the prison at the time of the study, 49 inmates (13.9%) did not participate in the study. This refusal rate is similar to previous rate of 18% from studies in Western cultures (1,5). In addition, the preponderance of male offenders (96.4%) conforms with previous reports from the West (2,3) and with the finding of Udofia (19) among offenders referred from the courts to a psychiatric hospital in Eastern Nigeria. Over a half of the offenders belonged to the group aged 30 years and below. In a review of 62 surveys from 12 European countries, Fazel and Danesh (2) observed that majority of the 22790 prisoners belonged to lower age groups. A similar observation was reported among Nigerian subjects (19). The relationship between criminality and mental disorders is a subject that is currently a major focus of researchers in developed countries. This relationship is being evaluated by estimating the proportions of offenders with prior contact with psychiatric facilities before imprisonment. Proportions ranging from 34–61% have been reported (3,20). In the present study, this relationship was indirectly evaluated through estimating the proportion of the prisoners who had suffered from a psychiatric disorder before imprisonment, by self- disclosure. The observed rate (3.7%) is much lower than the previous reports from these cited studies. Possible reasons include the fact that these previous estimates were derived from case register linkage owing to the availability of reliable mental health services database, and not through self-disclosure. Also, most of the cases had previous contact with psychiatric facilities on account of drug problems, which the Nigerian subjects may not report as psychiatric problems, and for which majority would not have sought or received medical help.

The proportions of the prisoners with possible clinically diagnosable psychiatric morbidity (87.8%) and with significant depressive symptoms (85.3%) were quite high (Table 2), and this observation is in keeping with the observed high rates of mental

health problems among prisoners in the developed world (2,4,5,8). In our sample, majority of the respondents (96.3%) reported never experiencing a mental disorder before confinement and yet, only 34% rated their current mental health as good during imprisonment. This observation requires urgent attention, including an assessment of the factors, which may be responsible for the prisoners' appraisal of their current mental health status as poorer. Although, the two indices of mental health status (history of previous mental disorder and self-reported current mental health functioning) are based on self-disclosure and it is only assumed that negative history of mental disorder before imprisonment would correlate with good mental health status at that time, the observed significant relationship between measures of psychopathology (GHQ-30 and HADS Depression subscale) and self-reported current mental health functioning in the sample somehow supports the assumption.

Apart from self- reported mental health status, the other variables with significant relationships with symptoms include low education, being a Muslim or traditional worshipper and being unmarried, divorced or separated. All these variables were associated with higher depressive symptoms in the sample. Also, awaiting trial status; appraisal of prison accommodation and of available health care as poor, were significantly associated with GHQ-30 'caseness'. The finding on marital status may derive from support, which could be higher among married subjects. Also, the observation on education could have resulted from poorer adjustment to prison environment among the less educated inmates. The higher level of symptoms among the Muslims and worshippers of traditional religions will require further investigation. In a review of previous observations in the United Kingdom (8), certain factors, which predispose prisoners to developing a mental disorder, were highlighted. One of these is awaiting trial status, which induces emotional stress due to the stressful nature of court proceedings. One factor which may induce stress, among our sample, based on the experience of the authors, is the usual inability to attend court sessions owing to inadequate number of prison vehicles, particularly when courts located in different towns are to be attended on the same day by different prisoners, and relatives are not around to make alternative travelling arrangements. Another identified factor include the inability of prison establishments to provide basic essential needs of the patients, including health care and average accommodation.

These shortcomings are largely due to poor funding of prison services. At the Ilesa prison, there is a health clinic, staffed with doctors and nurses, but the amount of available health care depends on inputs from the inmates' relatives with respect to procurement of drugs, which are usually not available or in short supply at the clinic.

From the foregoing, support provided by relatives, improving the state of the legal process and of essential needs could go along way in reducing psychiatric morbidity among Nigerian prisoners.

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