

ORIGINAL ARTICLE

Prevalence of psychiatric morbidity among inmates of a borstal institution in Nigeria

B. A. ISSA¹, A. D. YUSSUF¹, P. O. AJIBOYE¹ & O. I. N. BUHARI²

¹Department of Behavioural Sciences, College of Health Sciences, University of Ilorin, and ²Department of Behavioural Sciences, University of Ilorin Teaching Hospital, Ilorin, Nigeria

Abstract

Studies have reported increased psychiatric morbidity among young detainees, with as many as three-quarters reported to have one or more psychiatric disorders. Despite this, however, there is a dearth of published work among young inmates of prisons, remand homes or borstal institutions in Nigeria. The aim of this study was to assess possible psychiatric morbidity among young inmates of a borstal institution in Nigeria and to determine the factors that may be associated with this morbidity. Fifty-three inmates of one of the two existing borstal institutions in Nigeria were assessed for psychiatric morbidity using the 12-item General Health Questionnaire (GHQ-12). The GHQ-12 scores were compared with the socio-demographic factors of the respondents. Twenty-eight (52.8%) of the inmates were over 18 years old, 35.8% were in the middle position within the family, 62.3% were of Christian faith, and 64.2% had their parents still living together. Seventeen (32.1%) of the inmates were from Hausa ethnic extraction, 58.5% stayed for more than 6 months at the borstal institution, and 81.1% were brought to the institution by their parents. The mean age of the inmates was 17.3 years (range, 14-23 years) and 26 (49.1%) of them were GHQ-positive. There was no statistically significant difference between the mean age of GHQ-positive and GHQ-negative inmates ($F=1.73$, $p=0.19$), and none of the socio-demographic variables were significantly associated with psychiatric morbidity (i.e. GHQ-12 positivity). The study observed a high prevalence of undetected psychiatric morbidity among inmates at the borstal institution. Efforts should be intensified by the authority responsible for managing the Nigerian prison services (including the borstal institutions) to improve mental health services.

Keywords: Nigeria, psychiatric morbidity, young inmates

Introduction

Despite Nigeria being a signatory to the major international agreements relevant to the administration of juvenile justice, many adolescent offenders are often detained in adult prisons and remand homes (Ogunlesi, 1990; Agbahowe et al, 1998; Otakpo & Askia, 2000; Penal Reform International, 2003). Studies have indicated that psychiatric morbidity and

Correspondence: Email: issababa2002@yahoo.com

ISSN 1744-9200 print/ISSN 1744-9219 online © 2009 Taylor & Francis
DOI: 10.1080/17449200902880409

disorders are common in prison populations resulting in increased mental healthcare needs among inmates (Ogunlesi, 1990; Agbahowe, Ogunlesi, Osahon, & Ohaeri, 1998; Otakpo & Askia, 2000; Fazel & Danesh, 2002; Manderscheid, Gravesande, & Goldstrom, 2004). According to Fazel and Danesh (2002), several million prisoners probably have serious mental disorders worldwide, but how well prison services are addressing these problems is not known. Similarly, epidemiological studies have estimated that between two-thirds and three-quarters of detained youths have one or more psychiatric disorders, with rates of major mental disorders (e.g. affective disorder, psychosis) being put between 15 and 79% (Desai, Goulet, Robins, Chapman, Migdole, & Hoge, 2006; Otakpo & Askia, 2000; Teplin et al, 2002). Screening young inmates for mental illness therefore needs to form part of the integrated health services for mentally disordered offenders (Birmingham, 2000). Similar to other laws that protect the rights of adult detainees (Teplin, Abram, McClelland, Dulcan, & Mericle, 2002), the Nigeria's Borstal Institutions and Remand Centers Act (1962), the Borstal Training Law (1968), and the Children and Young Persons Law of Kwara State (1968) protect the rights of young inmates with serious mental disorders, and stipulate the establishment of borstal institutions to ensure adequate provision of a conducive training of young inmates and enhancement of juvenile justice administration.

Although many studies have investigated psychiatric disorders among inmates of Nigerian prisons (Adamson & Malomo, 1991; Ogunlesi, 1991; Adesanya, Ohaeri, Ogunlesi, Adamson, & Odejide, 1997; Agbahowe et al., 1998; Otakpo & Asikhia, 2000; Fatoye, Fatoye, Oyebanji, & Ogunro, 2006), none has focused on young populations in borstal institutions. Thus, there is a dearth of published work among young population in prisons, remand homes, or borstal institutions in Nigeria. Ogunlesi (1991) and Agbahowe et al. (1998) studied the characteristics of juvenile offenders in a remand home in Nigeria, and identified some risk factors for juvenile delinquency as the death of biological mother, parental marital failure, growing up with relatives, rather than parents, drug abuse, and ordinal position in the family.

A borstal institution was established in Ilorin, a North-central town of Nigeria, in 2005 to serve as a juvenile correctional facility to cater for juvenile offenders and children with difficult behaviours. Since its inception, no study has been carried out in this institution to assess the mental health of the inmates. We believe such a study may give an insight into the mental health status of these inmates. To the best of our knowledge, no other study has documented psychiatric morbidity among inmates of a borstal institution in Nigeria. The aim of this study was to assess the psychiatric morbidity among inmates of a borstal institution in Nigeria and to determine the factors that may be associated with it.

Methods

The study is a cross-sectional descriptive one that reports exclusively on the 53 youths, aged 14–23 years, remanded at the juvenile borstal institution in Ilorin, the Kwara state Capital. The Institution was the second such in Nigeria, the other being in Kaduna, North-western zone; both are exclusively for male young offenders (or children with difficult behaviours). The borstal is a purpose-built institution equipped with crafts, sporting, and academic materials for the training of youth offenders, and those in need of correctional intervention. Inmates are in classes similar to those in a conventional regular school in the country and those at the senior classes are registered for the final Secondary School Leaving Certificate [i.e. West African Examination Council (WAEC) and National Examination Council examinations (NECO) examinations]. Inmates who are learning disabled are allocated to a

vocational training unit to learn craftwork. Most inmates of the institution were referred by their respective parents. This is probably due to the country's dysfunctional juvenile justice system, the easy access to alternative correctional centres (i.e. the borstal institutions), their greater social acceptability, and the fear that appearance before the juvenile courts may result in conviction. Only a minority were there on the advice of security operatives (e.g. the Police). Therefore, most of the inmates did not go through the legal proceedings ordinarily expected in a country with a functional juvenile justice system.

The inclusion criteria for the study were the ability to read and write, and to understand simple instructions. Cognitive impairment was an exclusion criterion and was determined by a simple cognitive function test assessing capacities in the following areas: orientation, memory (immediate-, short-, and long-term), judgment, verbal/non-verbal communication, general information, simple arithmetic calculations, similarity/differences, and abstraction. The sample was stratified by ethnicity (Ibo, Yoruba, Hausa; the major ethnic groups in Nigeria; and others), age and religion, sources of referral to the borstal institution, duration of stay at the borstal institution, parents' marital status, and the inmates' position in the family.

Studying young people in prisons or remand homes have been reported to require special procedures because of potential participants being detained minors without a parent or guardian who can provide appropriate consent. Joint approvals to conduct the study were granted by the Kwara State Controller of Prisons and the Principal of the institution (a Chief Superintendent of Prisons). The study protocol was granted approval by the University of Ilorin Teaching Hospital (UIH) Ethical Review Committee. We approached potential participants, explained the project, and assured them that their responses would be kept confidential, except where necessary immediate intervention was required (e.g. acute severe mental disorder). Participants signed an assent form (if they were younger than 18 years) or consent form (if they were aged 18 years and above). We also attempted to contact parents to provide them with information and an opportunity to decline participation of their wards. Where parents were not available, the senior officials of the Institution (Principal, Vice-principal, or senior teachers who were all Nigerian Prisons Services staff), were requested to give consent on their behalf.

Every participant was given a questionnaire booklet consisting of a socio-demographic questionnaire and the General Health Questionnaire-12 (GHQ-12; Goldberg, 1972; Goldberg et al., 1997). The GHQ has been validated among prison populations (Andersen, Sestoff, Lillebak, Gabrielsen, & Hemmingsen, 2002), children and adolescents (Tait, French, & Hulse, 2003; French & Tait, 2004; Berra, Borrell, Rajmil, Estrada, Rodriguez, Riley, Forrest, & Starfield, 2006; Sleskova, Tuinstra, Madarasova, Dijk, Salonna, Groothoff, & Reijneveld, 2006) and in this environment (using a cut-off point of 3; Gureje & Obikoya, 1990; Amoran, Lawoyin, & Lasebikan, 2007). The GHQ-12 classifies patients as cases or non cases of psychiatric morbidity. It has been used extensively in studies within and outside Nigeria as a screening tool for psychiatric morbidity, and has been translated into more than 30 languages throughout the world. GHQ-12 is the shortest form of the GHQ-60, which was developed to screen for non-psychotic psychiatric disorders in general settings. The GHQ is rated on a classical Likert format scale. Scoring of the GHQ can be performed either between '0 and 3' (0123 scoring), or scores '0' and '1' can be rerated as absent, and '2' and '3' as present (0011 scoring). We used this second type of scoring named 'GHQ type scoring'. Institution officials and researchers were on hand to give necessary explanations where expedient.

The inmates of the borstal institution were 70 young males, 53 of whom were eligible for the study; 17 (24.3%) were ineligible because they were too cognitively impaired to be

interviewed (i.e. they had poor verbal/non-verbal communication skills, as well as writing dyslexia and so were unable to write or comprehend simple instructions).

Statistical analysis

The Statistical Package for the Social Sciences 11 (SPSS Technical Support, 2000) program was used for statistical analysis. Results were calculated as frequencies (%), means, and standard deviations. Chi-square test and Student's *t*-test were used to calculate the differences between groups at 5% significance.

Results

As shown in Table 1, of the 53 eligible inmates, 52.8% were in the age group 'greater than 18 years', 35.8% were in the middle position within the family, 62.3% were Christians, and 64.2% had their parents still living together. Seventeen (32.1%) of the inmates were from

Table 1. GHQ status and socio-demographic variables.

Variables	Frequency <i>n</i> (%)	GHQ-negative (<i>n</i> =27)	GHQ-positive (<i>n</i> =26)	χ^2	df	<i>p</i> -value
Age group (years):				1.75	3	0.62
<11	5 (9.4)	3	2			
11-14	4 (7.5)	2	2			
15-18	16 (30.2)	10	6			
>18	28 (52.8)	12	16			
Mean age $\pm$ SD		16.96 $\pm$ 2.47	17.73 $\pm$ 1.69	<i>F</i> value = 1.731, <i>p</i> = 0.19		
Position among siblings:				6.29	4	0.18
First child	14 (26.4)	7	7			
Middle position	19 (35.8)	12	7			
Last child	12 (22.6)	7	5			
Only child	2 (3.8)	0	2			
Only male	6 (11.3)	1	5			
Religion:				0.01	1	0.92
Christianity	33 (62.3)	17	16			
Islam	20 (37.7)	10	10			
Parents living together:				3.62	1	0.06
Yes	34 (64.2)	14	20			
No	19 (35.8)	13	6			
Ethnicity of inmates:				2.90	3	0.41
Hausa	17 (32.1)	9	8			
Ibo	15 (28.3)	10	5			
Yoruba	13 (24.5)	5	8			
Others	8 (15.1)	3	5			
Duration of stay (months):				0.01	2	0.99
<2	8 (15.1)	4	4			
2-6	14 (26.4)	7	7			
>6	31 (58.5)	16	15			
Sources of referral:				2.01	3	0.57
Parents	43 (81.1)	21	22			
School authority	1 (1.9)	1	0			
Government	3 (5.7)	1	2			
NGO/Concerned citizens	6 (11.3)	4	2			

Hausa ethnic extraction, 58.5% stayed for more than 6 months at the borstal, and 81.1% of them were brought to the borstal by their parents. The mean age and standard deviation of the inmates was $17.3 (\pm 2.14)$ years (range = 14–23 years).

Table 1 shows that 26 (49.1%) inmates scored more than 3 on the GHQ-12 and were regarded as GHQ-positives (i.e. cases with probable psychiatric morbidities). On the other hand, 27 (50.9%) were GHQ-negative (i.e. cases without psychiatric morbidities). The mean age $\pm$ SD of GHQ-positive inmates was 17.73 ± 1.69 , and for GHQ-negative inmates was 16.96 ± 2.47 . There was no statistically significant difference between the mean age of GHQ-positive and GHQ-negative inmates ($F = 1.731$, $p = 0.19$). Similarly, no socio-demographic variable was significantly associated with psychiatric morbidity among the inmates, but there was a trend between GHQ status and whether the parents of the inmates were living together or not ($p = 0.06$). Twenty (76.9%) inmates whose parents were living together had psychiatric morbidity compared with 6 (23.1%) whose parents were not living together.

Discussion

Almost half of our study population had probable psychiatric morbidity. This finding is comparable with other studies that have reported a high rate of psychiatric disorders among inmates (Agbahowe et al., 1998; Otakpo & Asikhia, 2000; Teplin et al., 2002; Abram, Teplin, McClelland, & Dulcan, 2003; Kjelsberg, Hartvig, Bowitz, Kuisma, Norbeck, Rustad, Seem, & Vik, 2006; Trestman, Ford, Zhang, & Wiesbrock, 2007). This prevalence was however higher than the previously reported rate of 34% by Agbahowe et al. (1998) in a study among inmates in Benin, Nigeria but lower than the rate (78.7%) obtained by Otakpo and Asikhia (2000). Non-functioning of juvenile justice administration system and poor prison mental health services in this country may be responsible for these high findings. Better services could enhance early detection and ensure immediate correctional intervention, and further reduce prevalence of morbidity.

Unlike previous studies (Ogunlesi, 1991; Agbahowe et al., 1998; Conklin, Lincoln, & Tuthill, 2000; Fatoye et al., 2006) that have reported association of socio-demographic/clinical factors and juvenile offending (e.g. ethnicity, female gender, older inmates (≥ 13 years), high prevalence of health issues at admission, limited access to health care, and high rates of physical illnesses, as well as poor feeding and poor prison accommodation), none of the socio-demographic variables tested in this study showed a significant association with psychiatric morbidity among our cohorts. Several factors might be responsible for this finding. The fact that our cohorts were only males precluded the possibility of knowing the contribution of gender. In addition, the physical health and conditions at the institution were outside the scope of present study hence, definitive comparisons might not be possible. Further studies may be necessary to unravel this.

However, like studies (Ogunlesi, 1991; Otakpo & Asikhia, 2000) that have reported higher morbidity among older inmates, this study showed that the higher the age of the inmates, the more the likelihood of having psychiatric morbidity. It was, however, contrary to the finding of Ozen, Ece, Oto, Tirasci, & Goren (2005), which reported increased morbidity among younger inmates.

Anecdotal evidence would tend to link being an inmate with disrupted family relationships in which parents live apart. This study, however, did not find an association between parents living apart and psychiatric morbidity. This was similar to the finding of Ozen et al. (2005) that 95% of juvenile offending occurred in those who were staying with their

parents, 81% of whom kept the family united. Future studies would be required to elucidate this finding. Ethnic affiliation was also not found to be associated with morbidity in this study. It is possible that the cosmopolitan nature of Ilorin (the town where the borstal is located) has diluted the effect of ethnic differences. Thus, the idea of majority and minority ethnic groups may not be helpful.

Although surprising, we did not find any significant association between psychiatric morbidity and the length of stay of inmates in the borstal; a finding that was different from previous reports (Tarolla, Wagner, Rabinowitz, & Tubman, 2002). It would be expected that morbidity, especially in the absence of adequate and appropriate intervention, are not likely to resolve quickly and may persist, causing the afflicted protracted suffering. Such inmates may be unlikely to complete their reformation within the stipulated time frame. Perhaps, the boarding-like living of the students, akin to a conventional regular school and different from a typical Nigerian prison, where inmates are more likely to be subjected to de-humanizing conditions, contributed to this finding.

In conclusion, this study has observed a high prevalence of undetected psychiatric morbidity among inmates of the borstal institution. Policy makers should therefore ensure provision of a more functional juvenile justice administration system and establishment of an effective prisons mental health service in the country for early detection, immediate correctional intervention, and improvement in the quality of life of our young inmates.

Limitations of this study include the fact that the study findings cannot be generalized to the entire nation because it described the experience of one correctional centre. The absence of a female centre (or population) that could have allowed evaluation of gender influence was also a limitation. In addition, having to rely solely on self-reported information of the respondents might also make definitive conclusions difficult in this study. However, this might also be the study's strength, because it could imply that the respondents had expressed themselves freely without any coercion. Thus, the high rate of morbidity reported could be a reflection of the extensive problems inherent in the institution. Non-inclusion of respondents' factors (e.g. physical illness) and institution's factors (e.g. institution's environment and administrative style) as possible variables could also be limitations of this study. However, we believe a foundation that could generate further studies has been established.

Lastly, as noted by Anderson et al. (2002), being in a prison (or a borstal home in this case) represents an interruption of normal living and functioning, and this may seriously invalidate the use of the GHQ as a screening measure, because such populations contain high prevalence rates of psychopathic features, which may disturb the validity of questionnaires including the GHQ.

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