

Prevalence and Correlates of Disruptive Behaviour Disorders in Youths in a Juvenile Borstal Institution.

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ABSTRACT

Background: Health care in juvenile justice system has been considered inadequate. Youths with disruptive behaviour disorder have an increased risk of causing problems within families, schools and communities. This poses a challenge for the juvenile system and after release, the public mental health system.

Aim: The aim of the study was to determine the prevalence and correlates of disruptive behaviour disorder in a Borstal institution.

Method: The study was a cross-sectional, descriptive report of 53 youths at the Borstal Institution in Ilorin, Kwara State. They were interviewed using MINI-KID.

Results: The mean age was 17.3 ± 2.1 years, 52.8% were between 11-14 years of age and 15.1%, 64.2% and 60.4% had ADHD, CD and oppositional defiant behaviour disorder respectively. Age and parents' marital status were significant correlates.

Conclusion: This study showed that juvenile detainees were likely to have psychiatric disorders, among which are the disruptive behaviour disorders. Recommended is collaboration between mental health professionals and the Juvenile system.

Keywords:- Disruptive Behavioural disorder, Correlates Juvenile offenders, Inmates, Borstal institution.

INTRODUCTION

A great proportion of youths is involved in the Juvenile justice

system (Snyder, 2000; News & Notes, 2004) and in the past few years, there has been increasing attention paid to the prevalence of psychiatric disorders in young offenders (Coccoza & Skowrya, 2000). The implication of this is that many detained youths may have psychiatric disorders (Aaron et al, 2001; Garland et al, 2001; Teplin et al, 2002; Wasserman et al, 2002).

The incarcerated youths are mostly in adult prisons and many may not have psychiatric services designed for juveniles (News & Notes, 2004; Teplin et al, 2002). Also this detention centres may have become a placement of last resort for youths with complex treatment needs, which such facilities might be ill equipped to handle, or may be used as a dumping ground for youths with mental health problems that no one else can control (News & Notes, 2004).

Given the great proportion of youths involved in the juvenile justice system, epidemiologic data on their psychiatric disorders are becoming increasingly important (Aaron, 2001), as providing psychiatric services for juvenile detainees may improve their quality of life and reduce recidivating (Gosden et al, 2003). However to date, health care (mental health inclusive) facility for youths in the juvenile justice system is generally considered inadequate (News & Notes, 2004; Gupta et al, 2005).

Juvenile detainees may pose a challenge for psychiatrists working closely with juvenile courts as well as the larger mental health system after their release due to the wide range of developmental capabilities, psychological sophistication, social and family background, socio-

economic status and education of the presenting youths (Teplin et al, 2002; O'Shaughnessy, 2004). A large proportion of youths already incarcerated is afflicted with chronic illnesses (mental illness inclusive) that require continuous medical attention. The consequence of inaction or a delay in receiving treatment, may, apart from ethical issues, lead to increased morbidity and mortality, as well as continuation of anti-social behaviours and criminal recidivating (repeated offences) (Gupta et al, 2004).

In the last two decades, the American Academy of Pediatrics and a few others, have issued policy statements stressing the need for better health care for juvenile offenders in correctional institutions (AMA, 1990; American Academy of Paediatrics, 2001; Joseph-DiCaprio, 2001) and the need for continuing treatment after parole (Teplin, 2002; Snyder, 2004). Despite this, there is a dearth of adequate research on the prevalence of mental disorders among juvenile offenders. The few studies only made vague identification of mental health problems (Ryan & Redding, 2004), without making specific diagnoses and finding out the possible correlates involved.

In Nigeria, psychiatric disorders have been investigated among young offenders in adult prisons and among adult offenders (Adamson & Malomo, 1991; Otakpor & Askhia, 2002; Fatoye, et al, 2006). It can be said that at the moment studies on young offenders in Nigeria are quite few and many aspects yet not researched into (Ajiboye et al, 2009), destructive behaviour disorder included.

The aim of the study was to

find the prevalence of disruptive behaviour disorders [Attention Deficit Hyperactivity Disorder (ADHD), Conduct Disorder (CD) and Oppositional Defiant Disorder (ODD)] as well as the correlates of these disorders among youths in a borstal institution. A Borstal institution is a training and rehabilitation centre for young offenders and youths with disruptive behaviours within the juvenile justice system. It is hoped that this would contribute to the available data on the prevalence of psychiatric disorders among this group of youths.

METHOD

The present study was a cross-sectional, descriptive one on 53 youths, aged 14-21 years, remanded at the Juvenile Borstal Institution in Ilorin, the Kwara state capital. It is a purposely-built institution equipped with crafts, sporting and academic materials for the training of youth offenders. It is under the management of the Nigeria Prison Service.

The details of the methodology have been described elsewhere. (Ajiboye et al, 2009) The study involved a 2-staged procedure. In the 1st stage, every inmate was given a questionnaire booklet consisting of socio-demographic questionnaire and the General Health Questionnaire-12 (GHQ-12) (Goldberg, 1972), an instrument that has been validated among prison populations (Black et al, 2004) and in this environment (Gureje & Obikoya, 1990; Amoran et al, 2007). The 2nd stage involved interviewing with Mini International Neuropsychiatric Interview (MINI-KID) (Sheehan et al, 1998). The inmates of the Borstal were 70, all males. Fifty three (75.7%) of them were eligible for the study; 17 (24.3%) were ineligible because they were too cognitively impaired to be interviewed (they were only brought into Borstal for vocational training). All the eligible 53 inmates (total sampling) were made to go through MINI-KID interview (regardless of their GHQ-12 scores). On the average, the assessment took 50 minute per inmate.

Statistical analysis: The inmates were stratified by age, ethnicity, religion and MINI diagnoses. The frequency distributions of these variables, mean and standard deviations were calculated using SPSS for Window, version 11.0.

RESULTS

Sample characteristic: Table 1 presents the socio-demographic characteristics of the sample. It was composed of 53 male inmates and there was a predominance of people aged 18-21 years (about 52.8%). Majority (62.3%), were Christians, more of the inmates occupied the middle position in their family. Eight (15%) did not indicate their ethnicity.

Table 1. Socio-demographic variables of Borstal inmates (n = 53)

Variables	n(%)
Age group (years):	
11	5(9.4)
11-14	28(52.8)
15-18	16 (30.2)
18-21	28 (52.8)
Mean age (years)	17.3± 2.1
Religion:	
Christianity	33 (62.3)
Islam	20 (37.7)
Ethnicity:	
Hausa	17 (32.1)
Ibo	15 (28.3)
Yoruba	13 (24.5)
Others	8(15.1)
Not indicated	8(15.1%)
Position in family:	
Firstborn	14 (26.4)
Middle position	19 (35.8)
Lastborn	12 (22.6)
Only child	8(15.1)
Parents' marital status:	
Living together	34 (64.2)
Not living together	19 (35.8)
Source of referral:	
Parents	43 (81.1)
School authority	1 (1.9)
Government agencies	3 (5.7)
NGOs/Concerned citizens	6(11.3)
Mean duration of stay (weeks)	64.9±41.6
Duration of stay (weeks):	
<8	8(15.1)
8-24	14 (26.4)
>24	31(58.5)

Table 2. Prevalence of current psychiatric diagnoses among Borstal inmates (n = 53)

Psychiatric disorders	n (%)
Panic disorder	3(5.7)
Separation anxiety disorder	1 (1.9)
Obsessive-compulsive disorder	1(1.9)
Post traumatic stress disorder	4(7.5)
Depression	9(17.0)
Dysthymia	4(7.5)
Hypomania	6(11.3)
Attention deficit hyperactivity disorder	8 (15.1)

Table 3. Prevalence of lifetime psychiatric diagnoses among Borstal inmates (n = 53)

Disorders	n (%)
Panic disorder	2 (3.8)
Depression	19 (35.8)
Suicidality	11 (20.8)
Alcohol dependence/abuse	14 (26.4)
Marijuana dependence/abuse	21 (39.6)
Cocaine dependence/abuse	5 (9.4)
Conduct disorder	34 (64.2)
Oppositional defiant behaviour	32 (60.4)
Psychotic disorders	2(3.8)

Over 80% of them were brought to the borstal institution by their parents. The major ethnic groups Nigeria were represented (Hausa (32.1%), Ibo (28.3%) and Yoruba (24.5%)).

Current psychiatric diagnoses:

Table 2 shows that 67.9% of the sample had one current psychiatric disorder or another. Depression was the most common current psychiatric diagnosis occurring in 17% of the subjects and was closely followed by hypomania which occurred in 11.3% of the subjects.

Lifetime psychiatric diagnoses:

Table 3 shows that 64.2% had lifetime psychiatric diagnoses excluding conduct disorders and Substance Use Disorders (SUD). Depression was also the most common (35.8%) and suicidality which occurred in 20.8% of

the subjects was next to depression.

Table 4 shows factors which might have contributed to the aetiology of disruptive behaviour disorders in the inmates.

Age was significant in conduct disorder and oppositional defiant behaviour disorder (Pearson chi-square 25.668, $df = 3$ $P = .000$) and (Pearson chi-square 22.396, $df = 3$, $P = .000$) respectively. Also there is a

possible significance in parents living apart and the development of oppositional defiant disorder in the inmates (Pearson chi-square = 4.133; $df = 1$; $P = .42$ and fisher's exact test = 0.041).

Table 4. Factors contributing to disruptive behaviour disorders

Variables	ADHD n (%)					Diagnoses					OPD n (%)				
	p	a	df	χ^2	P	p	a	df	χ^2	P	p	a	df	χ^2	P
Age															
< 11	2	12	3	2.8	.417	10	4	3	25.7	.000	9	5	3	22.4	.000
11-14	6	22				24	4				23	5			
15-18	-	5				-	5				-	5			
> 18	-	6				-	6				-	6			
Ethnicity*															
Hausa	3	14	3	.996	.810	9	8	3	1.634	.652	8	9	3	1.95	
.583	lbo		3	12				11	4				10	5	
Yoruba	1	12				9	4				9	4			
Position in family															
First born	2	12	3	.079	.994	11	3	3	2.405	.493	11	3	3	3.317	.345
Middle position	3	16				10	9				9	10			
Last born	2	10				8	4				7	5			
Only male	1	7				5	3				5	3			
Marital status															
Parents living together	4	30	1	.820	.365	25	9	1	3.62	0.057	24	10	1	4.133	.042
Parents not living together	4	15				9	10				8	11			
Source of referral															
Parents	6	37	3	2.312	.510	29	14	3	3.247	.355	27	16	3	2.645	.450
School authority	-	1				1	-				1	-			
Government	-	3				2	1				2	-			
NGO/citizens	2	4				2	4				2	4			
Duration of stay in weeks															
< 8 weeks	1	7	2	.075	.963	4	4	2	1.021	.600	4	4	2	.460	.794
8-24 weeks	2	12				10	4				9	5			
> 24 weeks	5	26				20	11				19	13			

Key: a- absent
p- present
df – degree of freedom
 χ^2 - Chi-square
P – probability value
* - missing data present here

ADHD = Attention Deficit hyperactivity Disorder
CD = Conduct Disorder
OPD = Oppositional Defiant Disorder

DISCUSSION

Psychiatric disorders are a major health problem among detained youths and may be complicated with high rates of comorbidity and making it difficult to have a precise estimate (Teplin, 2002; Abram et al, 2003).

Our study shows that 64.2% of the inmates had Conduct Disorder

(CD), 60.4% Oppositional Defiant Disorder (ODD) and 15.1% Attention Deficit hyperactivity Disorder (ADHD). The socio-demographic factors found to have some level of significance as possible correlates were: (a) Age in conduct disorder ($\chi^2 = 25.668$; $df = 3$; $P = 0.000$) and (b) Parents living apart in the development of oppositional defiant disorder ($\chi^2 = 4.133$; $df = 1$; P

= 0.42 and fisher's exact test = 0.041). These findings seem to support a previous report that risk factors were demonstrated to have different effects at different ages of development and at adolescence each factor had only a small individual effect, but cumulative effect may be substantial (O'Shaughnessy, 2004).

Of much importance is the

Disruptive Behaviour Disorder also known as Behaviour Disorder, an umbrella term that includes more specific disorders such as conduct disorders (CD), oppositional defiant disorder (ODD) and in some cases Attention Deficit Hyperactivity Disorder (ADHD). Some researchers believe that ODD and CD lie in a continuum, often with developmental progression from oppositional defiant disorder to conduct disorder with increasing age (Loeber, 1991). So there is a need for further researches into the aetiology of these disorders in order to prevent such a progression.

A large body of research suggests that children with behavioural disorders are significantly impaired in their social relationships, with difficulties in parent-child, sibling and peer relationships (Costin & Chambers, 2007; Mikami & Pfiffner, 2008; Wymbs *et al*, 2008). Also parents of these children experience more parenting stress (Fischer, 1990) as well as inter-parental discord (Loeber, 1991), and lower marital satisfaction (Wymbs *et al*, 2008). These factors may account for the finding that 81.1% of the inmates were brought in by their parents and this may also account for the finding of 35.8% of the inmates parents not living together, though this should be interpreted with caution because in present day Nigeria economic factors may account for couples living far apart.

It is interesting to note that government agencies were responsible for the referral of only 5.7% of the inmates. This may be a reflection of the fact that despite the promulgation of an act establishing Borstal Institutions and Remand Centres, in April, 1962 (Borstal Institution and Remand Centre Act, 1962), there has been no functional juvenile justice system. The public outcry against committing children and young persons to prison led to the need for the establishment of functional Borstal institutions in the country. Hence, in 1995 in an attempt to actualize establishment of a borstal institution, the child welfare centre in Ilorin was transferred to Nigerian Prisons Services to be used as a borstal

facility.

The economic cost of disruptive behaviour disorders has received relatively little attention (Johnston & Mash, 2001; Foster *et al*, 2005) though the treatment needs does not change because of involvement with Juvenile justice system, but meeting them require changes in the way both the mental health and juvenile justice systems operate. Treatment and sanctions should be combined with services not only limited to psychiatric assessment, psychotherapy and medication, but home-based treatment with case management services which should also be provided. Parent management training and family support services with crisis intervention should be included, as well as, respite care when necessary (Shelton, 2001; Costin & Chambers, 2007; Wymbs *et al*, 2008). Both the Government and Non-Governmental Organisations (NGOs) should be encouraged to take more active parts in the funding of health related programmes and services in these institutions. Parents and guardians could also be encouraged to be more proactive in their ward's health management.

The resulting cost of disruptive disorders, not just financial, to the society is potentially enormous and extends over many years. Particularly salient to policy makers are the cost tax-payers incur in the short term. This may stem from the youths' involvement in a variety of child-serving sectors, in which early identification and a intervention of the psychopathology could have a profound impact and may even ameliorate recidivism (Thompson *et al*, 1996; Buckstein, 2000; O'Shaughnessy, 2004; Foster *et al*, 2005).

This study has shown findings, similar to previous reports, that among juvenile detainees, inmates were likely to have psychiatric disorders among which is the disruptive behaviour disorder.

Recommendations

Following this study we recommend that there should be a

collaboration between mental health professionals and the juvenile justice system in developing better ways to screen for psychiatric morbidity among youths involved in the juvenile justice system (Teplin *et al*, 2002; Abram *et al*, 2003), as well as their management strategies. As most juveniles do not remain in detention for long, so on release, follow-up care should be the responsibility of the public health system and it is only sustained partnership between the mental health and juvenile justice system that can ensure this (Synder, 2004; Abram *et al*, 2003).

Limitations

In considering the findings of this study, it is important to note that caution should be taken because of the small sample size and its predominantly male population. Results may not be generalised to other juvenile justice facilities as our sample included only detainees; it excluded youths who were not detained (their charges were less serious), or were referred immediately into the mental health system. Secondly, it was not feasible to interview parents/care takers so our data were subject to the reliability and validity of the youths' self report and under reporting of symptoms by youth may be endemic, especially for disruptive behaviour disorders (Abram *et al*, 2003). Thirdly, errors might have occurred as a result of missing data. Despite these limitations, it is our belief that our findings may have implications for mental health among detained youths as well as redirect mental health policy especially as it affects the juvenile offenders.

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