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PSYCHIATRIC MORBIDITY AND SUBSTANCE ABUSE AMONG MALE JUVENILE OFFENDERS IN BANGLADESH

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Abstract

Juvenile offenders are generally vulnerable to psychiatric illness. The objectives of the study were to determine the types of psychiatric disorders among male juvenile offenders in Bangladesh and to find out their socio-demographic correlation and relation with substance abuse. This was a cross sectional study conducted in Juvenile Development Center (Boys'), Bangladesh. All the male offenders of 9-18 years were included in the study during January - June 2011. Total respondents were 138. Validated Bangla version of the Development and Well-

Being Assessment (DAWBA) was used to determine psychiatric disorders which were assigned based on ICD-10 diagnostic criteria. Information regarding socio-demography and substance abuse were collected through face-to-face interview using a semi-structured questionnaire and from the case-notes. Data analysis was done by SPSS for windows 15 version. The mean (\pm SD) age of the respondents was 14.2 (\pm 1.7) years. Psychiatric disorders were diagnosed in 57.2% of the respondents. Rate of emotional disorders (48.1%) was higher than behavioral disorders (38.4%). Regarding specific disorders, conduct disorder (46.8%) and major depressive disorder (43.0%) were the most common diagnoses. Statistically significant association of psychiatric disorders was found with urban background (57.6%), primary level of education (63.5%), and employment (75.5%). Among the respondents, 38.4% had history of substance abuse. Among the substance abusers, 77.4% had psychiatric disorders. It can be concluded that there was considerable rate of psychiatric disorders and substance abuse among the male juvenile offenders in the development centre. Broad-based replication study could confirm these findings.

Keywords

Bangladesh, Juvenile Development Centre, Male Juvenile Offender, Substance Abuse

1. Introduction

The term juvenile delinquent is defined by the legal system as a youth who has violated the law in some way, but the term does not imply that the youth meets criteria for a mental disorder. Juvenile delinquency continues to be a major worldwide social problem. A series of new findings in epidemiology, developmental psychiatry, and neuroscience offers the opportunity to recast the problems of this recalcitrant and difficult-to-access population and bring to bear the insights of modern psychiatry in the treatment and successful rehabilitation of juvenile offenders (Steiner & Redlich, 2002).

The crude psychiatric morbidity (CPM) rate was 44.4% in a point prevalence survey among children and young persons appearing in the Nairobi juvenile court, Kenya. Common psychiatric disorders were conduct disorders, mixed disorders of conduct and emotion, emotional disorders with onset specific to childhood, mood disorders and hyperkinetic disorders (Maru et al., 2003). In Templin's Study, largest study till date, substantial rates of psychiatric morbidity were found in juvenile detainees in Chicago, Division of Juvenile Justice (DJJ). Even after excluding for the diagnosis of conduct disorder, 60% of males and 67% of females met diagnostic criteria for one or more psychiatric disorders (Tippling et al., 2002). Many justice-

involved youths use substances on a “regular” basis some of whom have also demonstrated heavy usage levels and substance use disorders (Maru et al., 2003; Crowe, 1998; Dembo et al., 1999; Atkins et al., 1999).

There are very few studies regarding psychiatric morbidity among juvenile offenders in Bangladesh. In the country, there is a government-operated development center at Tongi, Gazipur for male juvenile offenders in which they are provided with security, care, and education, services for corrections, rehabilitation and reintegration in the society. A study carried out there (known as ‘National Institute for Correctional Services’ then) in 1999 revealed a high psychiatric morbidity among the inmates (Haq, 1999). It was the first study conducted in Bangladesh about the psychiatric morbidity in juvenile offenders.

Current study was aimed not only to obtain credible baseline data to estimate a prevalence of psychiatric disorders among male juvenile offenders, but also to find out their socio-demographic correlation and relation with substance abuse disorder.

2. Methods

It was a descriptive cross-sectional study. This study was conducted during January - June 2011. All the male inmates in National Juvenile Development Center (Boys’), Tongi, Gazipur, within the age range of 9-18 years were included in the study. Participants of the study were identified from registrar books of the developmental center. A total of 141 inmates were approached. Three of them did not give consent. So, the respondents were 138 in number. Informed consent (in Bangla) was taken from the respondents’ house parents and the respondents aged above 11 years. All the ethical issues have been considered throughout the study. After taking consent, they were interviewed by the researchers by using a semi-structured questionnaire (in Bangla) for socio-demographic variables. House parents were interviewed by using the parent version of DAWBA (Development and Well-Being Assessment). DAWBA is an internationally well accepted research instrument and a novel package of questionnaires, interviews, and rating techniques designed to generate ICD-10 psychiatric diagnoses among children and adolescents of 5 to 16 years (extended upto 18 years) (Goodman et al., 2000). This instrument has been translated in Bangla and standardized and validated by Mullica & Goodman (2005). DAWBA has three versions- parent version, self-version and teacher version. Children of 11 or more years of age were interviewed by using self-version of DAWBA. Teacher version of DAWBA was given to the class teachers to fill up the questionnaire. The researchers also

recorded verbatim accounts of any reported problem. Information regarding substance abuse was collected through face-to-face interview using a separate semi-structured questionnaire and from the case-notes. Data analysis was performed by Statistical Package for Social Sciences (SPSS), for windows version-15 and chi-square test was done to show the association.

3. Results

Among 141 approached, total 138 inmates participated in the study; therefore the respondents' rate was 97.9%. The mean (\pm SD) age of the respondents was 14.2 (\pm 1.7) years. Most (42.8%) of the respondents belonged to the age group of 15-16 years. Majority of them were from urban area (73.9%), were Muslims (94.2%), unmarried (97.1%), completed primary level of education (45.7%), lived in nuclear family (77.5%) having monthly family income of less than 10,000 Tk (89.1%). Before entering the development centre, 38.4% were in service and 38.4% were students.

Psychiatric disorders were diagnosed in 79 respondents (57.2%). Rate of emotional disorders (48.1%) was higher than behavioral disorders (38.4%) and some (16.5%) suffered from both categories of the disorders. Regarding specific disorders, conduct disorder (46.8%) and major depressive disorder (43.0%) were the most common diagnoses (Table 1).

Table 1: Psychiatric disorders (N=79)

Psychiatric disorders	No. of respondents*	%
<i>Emotional disorder</i>		
Major depressive disorder	34	43.0
Generalized anxiety disorder	6	7.6
Separation anxiety disorder	2	2.5
Specific phobia	1	1.3
Social phobia	3	3.8
Post traumatic stress disorder	9	11.4
<i>Behavioral disorder</i>		
Conduct disorder	37	46.8
Oppositional defiant disorder	4	5.1
Hyperkinetic disorder	1	1.3

* Multiple responses

No association was found between age and psychiatric disorders of the respondents ($p>0.05$). Higher percentage of psychiatric disorders was found in the inmates from urban background (57.6%), having primary level of education (63.5%), and who were in service (75.5%). The difference was statistically significant ($p<0.05$). Psychiatric disorders were not significantly associated with marital status, family pattern or monthly family income (Table 2).

Table 2: Association between socio-demographic characteristics and psychiatric disorders of respondents (N=138)

Socio-demography	Psychiatric disorder present		No psychiatric disorder		p-value
	No. of respondents	%	No. of respondents	%	
Age (in years)					
9-10	2	100.0	0	0	0.142
11-12	13	52.0	12	48.0	
13-14	25	48.1	27	51.9	
15-16	39	66.1	20	33.9	
Habitat					
Urban	49	57.6	36	42.4	0.004
Rural	26	72.2	10	27.8	
Semi urban	4	23.5	13	76.5	
Religion					
Islam	73	56.2	57	43.8	0.412
Hindu	4	66.7	2	33.3	
Christianity	2	100.0	0	0	
Education					
Illiterate	31	63.3	18	36.7	0.020
Primary	40	63.5	23	36.5	
Secondary	6	27.3	16	72.7	
SSC	2	50.0	2	50.0	
Occupation					

Unemployed	5	38.5	8	61.5	0.002
Labor	6	31.6	13	68.4	
Student	28	52.8	25	47.2	
Service	40	75.5	13	24.5	
Marital status					
Married	1	33.3	2	66.7	0.484
Unmarried	77	57.5	57	42.5	
Divorced	1	100.0	0	0	
Family pattern					
Nuclear	61	57.0	46	43.0	0.917
Joint	18	58.1	13	41.9	
Monthly income (Tk)					
< 10,000	73	59.3	50	40.7	0.360
10,001-20,000	4	40.0	6	60.0	
20,001-30,000	2	40.0	3	60.0	

Among the respondents, 53 (38.4%) had history of substance abuse. Among the substance abusers, 77.4% had psychiatric disorders (Table 3).

Table 3: *Substance Abuse and Psychiatric Disorders (N=138)*

Substance abuse	Psychiatric disorder present		No psychiatric disorder	
	<i>No. of respondents</i>	<i>%</i>	<i>No. of respondents</i>	<i>%</i>
Present	41	77.4	12	22.6
Absent	38	44.7	47	55.3

4. Discussion

The present study observed a total psychiatric morbidity of 57.2% among the inmates of National Juvenile Developmental Center (Boys'), Bangladesh. In a study applying DAWBA among 5-10 years old children in Bangladesh, Mullica & Goodman (2005) found that the overall prevalence of psychiatric disorders was 15%. Rabbani et al. (2009) estimated that prevalence of

psychiatric disorders was 18.4% among children of 5-17 years with higher prevalence among children of 12 years and above. In Isle of Wight study, prevalence rate of psychiatric disorder was 6.8% in 10-11-year-olds, with the rate in boys being twice that in girls (Rutter et al., 1976). These findings suggest that psychiatric disorder of the inmates living in National Juvenile Developmental Center, Bangladesh is clearly higher than the general paediatric population. The prevalence found in the current study is almost consistent with a previous study carried out at the same institution (Haq, 1999).

In the present study, the rate of emotional disorders (48.1%) was higher than behavioral disorders (38.4%). Mullica et al., (1995) found emotional disorders among 32.5% of the children attending at the outpatient department of the Institute of Mental Health and Research, Dhaka. Among the emotional disorders, major depressive disorder (43.0%) and post-traumatic stress disorder (11.4%) were found in a relatively higher proportion. This may be because the inmates experienced, witnessed or confronted with an event that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others. Most of which was related to their participation in criminal activities. Regarding behavioral disorders, almost half (46.8%) of the disordered respondents had conduct disorders. It is probably due to more experience of childhood adversity as more inmates were street children. These findings are consistent with the findings of the study conducted in the California Department of Corrections and Rehabilitation, Division of Juvenile Justice (DJJ) (Karnik et al., 2009).

Cohn and Tronick (1989) concluded that positive family environment is very important in children's development. Most of the boys of National Juvenile Developmental Center, Bangladesh were homeless and destitute. So they lack proper affection and care. This deficit becomes apparent later by aggression or other conduct problem.

The mean (\pm SD) age of the inmates was 14.2 (\pm 1.7), which is almost consistent with the age around 14 years where juvenile offending is highest (World UNICEF report, 2003).

The present study explored a significant association between psychiatric morbidity and the low educational attainment among juvenile offenders. The Isle of Wight study also found an important relationship between delinquency and somewhat below average IQ as well as educational and reading difficulties (Rutter et al., 1976). The possible explanation is that temperament and social factor may predispose to delinquency or reading failure. Alternatively reading difficulties may result in frustration which in turn predispose to aggression.

In the current study, psychiatric morbidity was significantly associated with the urban living. Geographical analysis suggests that countries with more urbanized populations have higher registered crime rates than do those with strong rural lifestyles and communities. This may be attributable to the differences in social control and social cohesion. Rural groupings rely mainly on family and community control as a means of dealing with antisocial behavior and exhibit markedly lower crime rates. Urban industrialized societies tend to resort to formal legal and judicial measures, an impersonal approach that appears to be linked to higher crime rates. The basic features of the urban environment foster the development of new forms of social behavior deriving mainly from the weakening of primary social relations and control, increasing reliance on the media at the expense of informal communication, and the tendency towards anonymity. These patterns are generated by the higher population density, degree of heterogeneity, and numbers of people found in urban contexts (World YOUTH Report, 2003). Rate of psychiatric disorder was also higher among the respondents who were involved in some kind of service. Here 'service' meant working as a tea boy in tea stall, sales boy of local stationary, garments worker, auto-tempo helper, bus conductor, and auto-mobile garage worker etc.

Substance abuse disorders act as an important predictor for juvenile offending. Among the respondents of the present study, 38.4% had a history of substance abuse. The rate is lower than the findings (46%) of the previous study in the same centre (Haq, 1999). McClelland et al., (2004) found a high prevalence rate of multiple substance use disorders (SUDs) among Cook County juvenile detainees. Nearly half the detainees were found to have one or more SUDs, with 21% having two or more. Data from the Arrestee Drug Abuse Monitoring Program (ADAM) indicate high rates of alcohol and drug use among juvenile arrestees; across 9 jurisdictions, from 42% to 55% of male arrestees were drug positive (Zhang, 2004). Among the substance abusers, more than three-fourth (77.4%) had psychiatric disorders whereas among the non-abusers the rate was 44.7%. The other studies also confirmed that the rate of psychiatric disorder is higher in substance abusers (Regier et al., 1990).

The study explored the psychiatric morbidities using standardized assessment instrument. However, the study had several limitations. Information was taken from the inmates and it was not cross-checked. So there may be some inconsistencies. Parent version of DAWBA was given to their House Parents who were not their real parents. So there was possibility of bias. The researchers were aware that the reality of incarceration may be a factor in this analysis. It was

expected that the rates of anxiety and mood symptoms could be affected by being held in an institutional setting.

5. Conclusions

Psychiatric morbidity was found in a considerable rate among the inmates of juvenile developmental center, Bangladesh. There was also a high rate of substance abuse among them. In spite of several limitations, the study provides baseline information on this issue. These findings need to be addressed carefully and evaluated extensively before drawing any conclusion. This study may help to implement new standards of practice and treatment in incarcerated inmates. The findings of this study should serve as a call for all juvenile justice systems to expand services for young offenders, especially given to the limitations and obstacles to care after release. Mental health and juvenile developmental center's authority should allocate more resource and design programs to reach inmates who need treatment in correctional unit and remand home. Awareness on mental health problem among inmate population of correctional facilities should be build up. There should be provision of early assessment and appropriate management of the psychiatric disorders among inmates of juvenile centres and these should be done by specialist mental health professionals.

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