

## Psychiatric disorders among male juvenile offenders in Bangladesh

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### Summary

Juvenile offenders are generally vulnerable to psychiatric illness. The objectives of the study were to determine the prevalence and types of psychiatric disorders among male juvenile offenders in Bangladesh. 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 2011 - 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 other factors 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. 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%). Most (26.8%) inmates were charged with murder. Psychiatric disorders were diagnosed in 57.2% of the respondents. Rate of emotional disorders (48.1%) was higher than behavioural disorders (38.4%). Regarding specific disorders, conduct disorder (46.8%) and major depressive disorder (43.0%) were the most common diagnoses. It can be concluded that there was considerable rate of psychiatric disorders among the male juvenile offenders in the development centre. Broad-based replication study could confirm these findings.

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## 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.<sup>1</sup> 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.<sup>2</sup> In Teplin'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.<sup>3</sup> Many justice-involved youths use substances on a "regular" basis,<sup>4,5</sup> some of whom have also demonstrated heavy usage levels and substance use disorders.<sup>2,6</sup> 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.<sup>7</sup> Current study was aimed to obtain credible baseline data to estimate a prevalence and types of psychiatric disorders among male juvenile offenders.

## Materials and 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 developed by Goodman et al. (2000)<sup>8</sup>, 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). This instrument has been translated in Bangla and standardized and validated by Mullick MSI and Goodman R (2005).<sup>9</sup> 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 socio-demography and other factors 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.

## 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 (Table 1). 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. (Table 2).

**Table 1: Age distribution of the respondents (n=138)**

Age (in years)	Frequency	Percentage (%)
9-10	2	1.4
11-12	25	18.1
13-14	52	37.7
15-16	59	42.8
Mean $\pm$ SD	14.17 $\pm$ 1.73	

**Table 2: Socio-demographic characteristics of the respondents (n=138)**

Socio-demographic characteristics	Frequency	Percentage (%)
<b>Habitat</b>		
Urban	102	73.9
Rural	36	26.1
<b>Religion</b>		
Islam	130	94.2
Hindu	6	4.3
Christian	2	1.4
<b>Education</b>		
Illiterate	49	35.5
Primary	63	45.7
Secondary	22	15.9
SSC	4	2.9
<b>Occupation</b>		
Unemployed	13	9.4
Labor	19	13.8
Student	53	38.4
Service	53	38.4
<b>Marital status</b>		
Married	3	2.2
Unmarried	134	97.1
Divorced	1	.7
<b>Family pattern</b>		
Nuclear	107	77.5
Joint	31	22.5

Monthly income (Tk.)		
< 10000	123	89.1
10001-20000	10	7.2
20001-30000	5	3.6

Most (26.8%) inmates were charged with murder, followed by rape (15.9%) and child and women repression (15.9%). (Table 3).

**Table 3: Distribution of the respondents by types of charge (n=138)**

Types of charge	Frequency	Percentage (%)
Murder	37	26.8
Rape	22	15.9
Decoity	11	8.0
Theft	19	13.8
Child and women repression	22	15.9
Illegal possession of narcotics good	20	14.5
Illegal possession of arms & animation	17	12.3
Human trafficking	5	3.6
Others (e.g. hijacking)	6	4.3
Absence of crime	8	5.8

Psychiatric disorders were diagnosed in 79 respondents (57.2%) (Table 4). Rate of emotional disorders (48.1%) was higher than behavioural 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 5).

**Table 4: Distribution of the respondents according to psychiatric disorders (n=138)**

Psychiatric disorders	Frequency	Percentage (%)
Present	79	57.2
Absent	59	42.8

**Table 5: Distribution of the respondents with psychiatric disorders according to type (n=79)\***

Psychiatric disorders	Frequency*	Percentage (%)
<b>Emotional disorders</b>		
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

<b>Behavioral disorders</b>		
Conduct disorder	37	46.8
Oppositional defiant disorder	4	5.1
Hyperkinetic disorder	1	1.3

\* Multiple responses

## **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, Mullick MSI and Goodman R (2005) found that the overall prevalence of psychiatric disorders was 15%.<sup>9</sup> Rabbani MG 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.<sup>10</sup> 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.<sup>11</sup> 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.<sup>7</sup>

In the present study, the rate of emotional disorders (48.1%) was higher than behavioural disorders (38.4%). Mullick MSI 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.<sup>12</sup> 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 behavioural 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).<sup>13</sup> 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.<sup>14</sup> The study found that there was increasing rate of violent offence. In a study in 1999 in National Institute for Correctional Service found that only 7% of male inmates were charged with murder<sup>7</sup> but according to the findings of current study in the same institute, National Juvenile Developmental Center, Bangladesh the charge with murder increased around four times (26.8%).

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.

## **Conclusion**

The present study significantly recognized the mental health problems in the juveniles who are incarcerated. 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.

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