

Mental Health Problems among Slum Children

– A Preliminary Survey

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ABSTRACT

Slum children are at risk for serious mental health problems because of their economic and social environments. Little is known about their mental health. This cross sectional study was carried out to know the extent of mental health problems among slum-dweller children in Dhaka city, Bangladesh. One hundred and twenty students of four different primary schools were selected. In the first stage of the study, socio-demographic data as well as information about mental health problems were collected through socio-demographic questionnaire and validated Bengali version of Rutter B2 scale respectively, from the teachers of the schools. In the second stage, all the students were assessed again personally by the both authors with the help of Diagnostic and Statistical Manual of Mental Disorders- fourth edition (DSM-IV). High prevalence of mental health problems was found among slum children (70.8%). Emotional, conduct and undifferentiated disorders were detected in 14.17%, 45.83% and 10.83%, respectively. Conduct disorder was 3.23 times more prevalent in the children than was emotional disorder. It was more prevalent in boys than in girls (57.90% vs 34.90%). Significant relationships were found among gender and emotional disorder ($p < 0.030$), father's employment status and undifferentiated disorder ($p < 0.010$), substance abuse by father and child's emotional disorder ($p < 0.050$) and also, gender and conduct disorder ($p < 0.001$). High prevalence of mental health problems among slum children is alarming. Unrecognized and consecutively untreated mental health problems during childhood may have life-long impact.

Key words: mental health, slum children, conduct disorder, Rutter B2 scale

INTRODUCTION

Mental disorders account for five of the top ten leading causes of disability in the world for children ages five and over¹. Available epidemiological data indicate that 12-51%; with the average around 29% of the world's children suffer from emotional and other mental problems that warrant treatment². The future of any country depends on the health and well-being of children.

Some children in the world are at risk for serious emotional and behavioral disorders because their economic and social environments hinder healthy mental development³. Children from slums are such group of children who are vulnerable to develop emotional and behavior disorders. The slum is operationally defined by United Nation (UN) as having at least one of five characteristics: poor structural quality of accommodation, insecure housing status, overcrowding and inadequate access to safe water, sanitation and other infrastructure⁴. About 30% of the world's population live in slums⁵. Hundreds of millions of children which comprises more than 60% of urban populations in the least developed countries are part of slum population⁵. About 3.4 million out of 12.6 million inhabitants of Dhaka, the capital of Bangladesh were living in slums in 2005⁶. Information about mental health of slum-dweller children is very much inadequate, especially in Bangladesh. The inadequacy of data on the mental health status in slums hinders the effective distribution of health care initiatives and the provision of appropriate disease prevention services⁷.

Recent evidence indicates that emotional and behavioral disorders frequently lead to poor school performance and to dropping-out of school. This wastes educational resources and seriously impairs the economic and social potential of such children⁸. This study was intended to know about mental health status of slum children residing in Dhaka city.

HYPOTHESIS

We hypothesized that slum-dweller children have high prevalence of emotional and behavioral disorder which needs special attention.

MATERIALS AND METHODS

This is a cross-sectional, descriptive study which was carried out from May 2005 to July 2005 in Dhaka city, Bangladesh. Data was collected from four schools run by a Non-Governmental Organization (NGO). Those schools were chosen because they are among the few schools which provide education only to the slum children and have better record keeping system. All of the students totalling 120 in number who attend primary school were selected. Research instruments were: Socio-demographic Questionnaire, Rutter's B2 Scale (translated and validated Bengali version) for teachers and Diagnostic and Statistical Manual-IV (DSM-IV) operational diagnostic criteria for childhood psychiatric disorders. Data were collected in two-phases. In phase I, data were collected from the teachers through Socio-demographic Questionnaire and Bengali version of Rutter's B2 Scale. In phase II, all the students of selected four schools were assessed personally by the both authors using DSM-IV operational diagnostic criteria for childhood psychiatric disorders for in depth assessment. Statistical Package for Social Science (SPSS) software package for Windows was used to analyse the data. Informed consents from the authority of the NGO, parents and teachers were taken. Families, teachers and NGO authority were made aware about the children who were found as having major emotional or behavioural disorders and referred to the specialist care for further management.

RESULTS

Distribution of study population by age and gender in table 1. Male and female ratio is 1: 1. Most of the children (59.2%) worked as waste picker (Table 1).

Table 1: Distribution of the study population by age and gender (n=120)

Age in years	Male		Female		Total	
	Frequency	Percent (%)	Frequency	Percent (%)	Frequency	Percent (%)
5-7	6	10.5	6	9.5	12	10.0
8-10	29	50.9	35	55.6	64	53.3

11-13	21	36.8	22	34.9	43	35.8
14-16	1	1.8	0	0	1	0.8
Total	57	100.0	63	100.0	120	100.0
Occupation of the child						
Reusable waste picker	27	47.4	44	69.8	71	59.2
Hawker	14	24.6	6	9.5	20	16.7
Laborer	14	24.6	11	17.5	25	20.8
Other	2	3.5	2	3.2	4	3.3
Total	57	100.0	63	100.0	120	100.0

Prevalence of all type of disorders among urban slum children (70.8%). Emotional, conduct and undifferentiated disorders were detected in 14.17%, 45.83% and 10.83%, respectively, of the children (Table 2).

Table 2: Prevalence proportions of emotional and behavioral disorders among the study population by their gender (n=120)

Gender	All type of disorders		Emotional disorders		Conduct disorders		Undifferentiated disorders	
	Frequency	Percent (%)	Frequency	Percent (%)	Frequency	Percent (%)	Frequency	Percent (%)
Male	40	70.20	4	7.00	33	57.9	3	5.30
Female	45	71.40	13	20.60	22	34.9	10	15.90

All children	85	70.80	17	14.17	55	45.8	13	10.83
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All type of disorders and conduct disorders are more prevalent in 8 to 10 years of age group. There is significant relationship between gender and emotional disorder ($p < 0.030$). Highly significant relationship was found between gender and conduct disorder ($p < 0.001$). Substance abuser father and emotional disorders in their children showed significant relationship ($p < 0.050$) (Table 3, 4).

Table 3: Prevalence of emotional and behavioral disorders among the study population by their socio-demographic characteristics (n=120)

socio-demographic characteristics	Prevalence in percentage			
	All type of disorders	Emotional disorders	Conduct disorders	Undifferentiated disorders
Age group (in years)				
5-7	66.7	25.0	33.3	8.3
8-10	75.0	14.1	50.0	10.9
11-16	65.9	11.4	43.2	11.4
Child's work				
Reusable waste picker	67.6	9.9	46.5	11.3
Hawker	80.0	15.0	50.0	15.0
Laborer	76.0	28.0	40.0	8.0

Other	50.0	0	50.0	0
Father's occupation				
Rickshaw puller	81.8	12.1	63.6	6.1
Laborer	65.2	17.4	34.8	13.0
Small business	62.5	12.5	37.5	12.5
Other	70.6	17.7	47.1	5.9
Unemployed	64.3	7.1	28.6	28.6
Mother's occupation				
Housewife	62.5	10.0	37.5	15.0
Domestic aid	73.8	19.1	47.6	7.1
Laborer	77.3	18.2	50.0	9.1
Small business	81.8	9.1	63.6	9.1
Other	60.0	0	40.0	20.0

Table 4: Relationship between emotional-behavioral disorders of the child and some of their socio-demographic characteristics (n=120)

Socio-demographic characteristics	All type of disorders	Emotional disorders	Conduct disorders	Undifferentiated disorders
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Gender	NS	S (0.030)	HS (0.001)	NS
Age	NS	NS	NS	NS
Child's work	NS	NS	NS	NS
Father's occupation	NS	NS	NS	S (0.010)
Mother's occupation	NS	NS	NS	NS
Substance use by father	NS	S (0.050)	NS	NS

Note: S= Significant at $p < 0.05$ (shown in bold), HS= Highly significant at $p < 0.005$ (shown in bold), NS = Not significant.

Assessment by using DSM-IV also confirms the more prevalence of conduct disorder in boys (31.6% in boys and 11.1% in girls) and more prevalence of depressive disorder in girls (about 4.5 times more frequent in girls than boys) (Table 5).

Table 5: Prevalence of specific psychiatric diagnoses (using DSM IV) by gender of the children (n=120)

Psychiatric diagnoses	Male	Female	All children
	Percent (%)	Percent (%)	Percent (%)
Absence of disorders	49.1	49.2	49.2
Conduct disorders	31.6	11.1	20.8
Depressive disorders	5.3	23.8	15.0

Anxiety disorders	7.0	12.7	10.0
Oppositional defiant disorders	3.5	0	1.7
Enuresis	1.8	0	0.8
Attention Deficit and Hyperactive Disorders	1.8	3.2	2.5
Total	100.0	100.0	100.0

DISCUSSION

There is lacking of published data on emotional and behavioral disorders of slum-dweller children in Bangladesh. In addition, because of the differences in the methods used, direct comparison of this study with most other published data on the same topics would not be appropriate.

In this study, male and female ratio is 1:1. Most of the children work as reusable waste picker (59.2%). Those children work after their school hours since they are very poor. We found high prevalence of all type of disorders among urban slum children (70.8%). This is similar with the research findings in New Delhi, India where 69.33% of runaway children had behavioral problems⁹. Another community survey in Puerto Rico also revealed similar high rate of psychiatric disorder among children proceeding from families of lower socio-economic status¹⁰. Comparison with the study of MG Rabbani and MM Hossain shows that prevalence of emotional-behavioral disorders is about 5.3 times more in urban slum children than of other primary school children of Dhaka city (70.8% vs 13.4%)¹¹. This comparison is almost similar with the study of Whit beck and National Comorbidity Survey (NCS)¹². From that comparison, we found that homeless and runaway adolescents were six times more likely than other same-aged NCS respondents to meet criteria for two or more disorders and were from 2 to 17 times more likely to meet criteria for individual disorders¹².

Emotional, conduct and undifferentiated disorders were detected in 14.17%, 45.83% and 10.83%, respectively, of the children. In this study, the conduct disorder was more prevalent than emotional or undifferentiated disorder. This concurs with the findings revealed by the study in Tokyo, Peking, Seoul and Al Ain^{13,14}.

The conduct disorder to emotional disorder prevalence ratio that noted in this study (3.23) is comparable to that noted in Seoul (2.4) but is different from those noted in Tokyo (6.2) and Peking (12.3) and AL Ain (1.4)^{13,14}. In our study, conduct disorder is more prevalent in males than in females (male-to-female prevalence ratio is 1.66:1) as has been seen elsewhere. Emotional disorder is 2.9 times more prevalent in females than in males. This is also similar with the findings of study by Rutter et al¹⁵. Assessment by using DSM-IV also confirms the more prevalence of conduct disorder in boys (31.6% in boys and 11.1% in girls) and more prevalence of depressive disorder in girls (about 4.5 times more frequent in girls than boys). Conduct disorder and depression, both, results from poor impulse control and frustration. In a chaotic and negligent psychosocial condition, boys are encouraged to express their impulse in the form of conduct disorder. Similarly, girls are taught to suppressing their impulse and frustration as a depression¹⁶.

Comparing emotional disorders, girls suffer more from depressive disorder than anxiety disorder (23.8% vs 12.7%). All type of disorders and conduct disorders are more prevalent in 8 to 10 years of age group. Five to seven years of age group children suffers more from emotional disorders and eleven to sixteen years age group children suffers more from undifferentiated disorder. There is significant relationship between gender and emotional disorder ($p < 0.030$). Highly significant relationship was found between gender and conduct disorder ($p < 0.001$).

Father's employment status has significant relationship with diagnosis of undifferentiated disorder ($p < 0.010$). Unemployed fathers have more percentage of children with diagnoses of undifferentiated disorder (28.6%). Among employed fathers, labourer fathers have more percentage of children with diagnoses of undifferentiated disorder (13.0%). Substance abuser father and emotional disorders in their children showed significant relationship ($p < 0.050$) and need further exploration.

Using DSM-IV, most common diagnosis was conduct disorder (20.8%). This differs from the study done in Chandigarh, India, where most prevalent disorder was enuresis¹⁷. In our study, enuresis was only 0.8%. Use of Rutter B2 scale and DSM-IV differs in case of total percentage of all type of disorders (70.8% vs 50.8%).

CONCLUSION

From the current study, we can accept our hypothesis that slum children have high prevalence of psychiatric disorders. This study shows that negative psychosocial environment like poverty, lack of a supportive social network and sociopathy in the parents have impact on development of behavioral and emotional problems among children. Unrecognized and consecutively untreated mental health problems during childhood of these slum-dwellers may have life-long impact. High prevalence of mental health problems among slum children demands special attention from health care professionals and policy makers. Obviously, larger and more comprehensive studies will be needed to define fully the extent of mental health problems and to identify the factors that promote or retard the development of those disorders in young people. There is no health without mental health; mental health is an integral part of overall health and quality of life. Receiving mental health service is not an opportunity rather a right to all children including slum-dweller children. Results of this study would be contributing for better mental health service delivery.

LIMITATIONS OF THE STUDY

Random sampling strategy was not possible due to logistic and resource constraints. Larger sample size would be better since prevalence is high. For obtaining reliable information about mental health of slum children, community based study would be better, since, majority of them does not go to school. In the second phase of the study, multi-axial diagnoses were not done due to limitation of time and resources. But multi-axial diagnoses would be more useful. Furthermore, to get accurate information, we need to interview parents in addition to the teachers.

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CONFLICT OF INTEREST: None

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