Prevalence of Behavioral and Emotional Disorders among the Orphans and Factors Associated with these Disorders

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Abstract:

Background: Orphans are the special group of children who are generally deprived and prone to develop psychiatric disorders even reared in well run institution. **Objectives:** To find out the prevalence of the behavioral and emotional disorder among the children living in orphanage in Dhaka city, and to assess the possible factors associated with the presence of disorders among this study population. **Methods:** It was a cross sectional descriptive study conducted in selected orphanages. A Total 342 cases were included. One stage structured assessment of psychopathology was carried out by using a valid Bangla version of DAWBA (The Development and Well-Being Assessment). Data analysis was done by SPSS for windows 16.0 version. **Results:** The results indicate that overall prevalence of behavioral and emotional disorders were 40.35%, in which Behavioral disorder was 26.9%, Emotional disorder was 10.2% and both Behavioral and Emotional disorder were 3.2%. Higher length of stay and low level of education of foster mother were significantly associated with psychiatric morbidity of the respondents. **Conclusions:** It can be concluded that behavioral and emotional disorders are highly prevalent among orphan children and adolescents with residential care that needs to be addressed. Moreover, measure for early identification and intervention will improve the quality of life of the orphan population.

Key words: Orphan, Behavioral disorder, Emotional disorder

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Introduction:

Bangladesh is one of the densely populated countries of South East Asia with children up to the age of sixteen making up nearly half of the population. Like other least developed countries Bangladeshi children are subjected to a large diversity of conditions which may have negative effect on their physical and psychological well-being like poverty, malnutrition, poor living conditions, infectious diseases and illiteracy. There are positive factors in the cultural background, family bondage, caring parents and other members of the extended families and good relationship with siblings and cousins. Globally one in every five children and adolescent suffer from a mental disorder and two out of five who require mental health services do not receive them. It is expected that by 2020 childhood neuropsychiatric disorder will rise to over 50% and will become one of five most common reasons of morbidity, mortality and disability among children.[1] Behavioral problems can occur in children with all ages and very often they start in early life. Many risk factors have been proposed for the occurrence of mental disorders, among which social factors are clearly implicated in the genesis and maintenance of these and their extension into adult hood[2]. Children living in orphanages are one of the most vulnerable group of children in a society; many of them have to live with repeated neglect, abuse or fear. For many of them, a new safe home they can trust alone is not enough to repair the damage imposed by abnormal early stress on the developing nervous system.[3] Thus children in foster care have a disproportionately high prevalence of mental health disorders.[4] An orphanage is often examined through problematic psychosocial function of children.[5] Anna Freud concluded from several case studies that institutionalized children are doomed to fail psychologically because of maternal deprivation. This was despite good physical and social care.[6] Another psychologically trained psychiatrist John Bowlby also reported that maternal deprivation was the central issue causing psychological damage to orphanage children.[7] Goodwin argues that any amount of orphanage experience is harmful; the damage is greatest during the first year of life and increases dramatically with length of stay in an institution.[8] Children institutional care are extremely vulnerable to psychological problem and institutionalization

in long term and in early childhood increases the likelihood that they will grow into psychologically impaired and economically unproductive adult.[9] Significant association between child psychopathology and long duration of stay in the orphanage and loss of parents before age of four years was found in a study carried out in a conventional orphanage in Dhaka city.[10] It has also been observed that in orphanage setting children's emotional and behavioral status worsen and even in well run institute children develop a range of negative behavior including aggression and indiscriminate affection towards adult.[11] Another study conducted in Turkey among orphanage children showed negative correlation between the age and emotional and behavioral problems.[12] Considering different studies it signifies that mental health of orphaned children is vulnerable at risk. Like other country, Bangladesh also has government operated and non governmental organization operated institution. This survey was aimed not only to obtain credible baseline data to estimate a prevalence of behavioral and emotional disorder among children living in orphanage facilities in Dhaka, but was also intended to find out any factor associated with the behavioral and emotional disorders among children in orphanage.

Methods:

It was a cross sectional, descriptive study. The study was carried out in a conventional orphanage named ''Sarkari Shishu Paribar" and privileged orphanage namely" SOS Children's Village", were selected by convenient sampling technique. The study was carried out from January 2009 to December 2010. Both boys and girls within age range of 6-18 years were included in the study for the measurement of the psychopathology. All the ethical issues has been considered throughout the study. One stage structured assessment of psychopathology was carried out. Research instruments that were used -A structured questionnaire designed by the researcher to collect information related to socio-demographic data of the children and foster mother. In this questionnaire foster mother were asked for their education status and number of children under care. Children information included age, sex, education status, and length of stay in the facility, child parents living status, previous stay, height and weight. Development And Well-Being Assessment (DAWBA): Assessment of emotional and behavioral disorders was carried out using the DAWBA developed by Goodman et al (2000). It 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 up to 18 years). It primarily focuses on the common emotional, behavioral and hyperactivity disorders and also covers less common disorders more briefly. It has three versions-parent version, self version and teacher version. Its parent version was used for all cases. Self version was used for adolescents 11 to 18 years of age. Its teacher version was used for all school going children and adolescents. This instrument has been translated in Bangla and standardized and validated (Mullick and Goodman,2005).It has two parts- structured questionnaire and open-ended questions. The interview questionnaires were administered by the interviewers who also recorded verbatim accounts of any reported problems, but did not rate them. Experienced clinician (supervisor of the study) subsequently reviewed both verbatim accounts and answers to structured questions before assigning diagnoses according to ICD-10 criteria. The validated Bangla version of DAWBA was used in this study. The Self Reporting Questionnaire (SRQ) that was used in this study has been developed by World Health Organization (WHO) as an instrument designed to screen for psychiatric disturbance, especially in the developing countries. The SRQ consists of 20 questions related to neurotic symptoms with simple yes/no responses. It may be used as a self administered or as an interviewer administered questionnaire. Additional 4 questions have been used with SRQ-20, to screen psychotic disorder (Harding et al. 1980). Its cut of point is 10. The SRQ is an instrument with proven reliability and validity. The SRQ has also been translated and validated in Bangla (Islam et al. 2000). The validated Bangla version of SRQ-24 was used in this study as a measure of mental health of the foster mothers. Prior to the data collection research team was developed. The members of the research team were included researcher herself and two trained data collectors. Participants of study were identified from the registr book provided by the respective orphanage. Interviewing of the orphan children and adolescent and their foster mothers were conducted in the respective orphanages premises. Firstly children who satisfied the inclusion criteria were selected. Then informed consent was taken from the foster parents of the children and themselves who are above eleven years of age. After taking consent, they were interviewed by the researcher and trained data collector by using questionnaire for sociodemographic and relevant variables. Then the mothers of all cases were interviewed by using parent version of DAWBA. The interviewers were also recorded the verbatim accounts of any reported problems. Children of 11 or more years of age were interviewed by using the self version of DAWBA. The teacher version was provided to the teacher to fill up the questionnaire. A senior child and adolescent psychiatrist who is an expert of rating

DAWBA subsequently reviewed both the verbatim account and answers to structured questions before assigning Axis -1 diagnosis according to ICD- 10 criteria. Clinical diagnosis was made according to the operational criteria of ICD-10. Diagnosis was grouped into emotional disorder and behavioral disorder. Self reporting questionnaire was provided to foster mother to fill up the questionnaire. Then data were edited, coded and entered into computer. Data analysis was done according to the objective of the study with the help of computer software program statistical package for social science (SPSS) for windows version 16.0. Chi-square and Anova test were done to show the association. Frequency table was made to describe the data.

Results:

In this study**,** total prevalence of psychiatric disorder was 40.35 %(Table-I).overall prevalence of behavioral disorder was 26.9%, Emotional disorder was 10.2% and both emotional and behavioral disorders were 3.2%(Table-II). In total,51.9% boys and 38.0% girls were suffering from emotional and behavioral disorders among SOS village respondents and 41.7% boys and 31.6% girls were suffering from Shishu paribar (Table-III). Among Emotional disorder, specific phobia was found more frequent. No cases of panic disorder, PTSD separation anxiety disorder were found (Table-IV). Oppositional-defiant disorder and hyperkinetic-disorder were obtain as common Behavioral disorder. Conduct disorder found more among the girls than the boys (Table-V). Higher percentage of behavioral and emotional disorders had been found among age group 10-14 years, higher Length of stay showed significant association with disorders of the children, behavioral and emotional disorders among the boys were greater than the girls and disorders were found more among the children who had stayed other than the parent before coming to orphanage and also who are underweight (Table-VI). Significant association was found between low educational status of foster mother and disorders of respondents (Table-VII).

Table-I

Overall prevalence of behavioral and emotional disorders (n=342)

Behavioral and emotional disorders	Frequency (n=342)	Percent (%)
Present	138	40.35
Absent	204	59.65

Table-II

Distribution of prevalence of behavioral, emotional disorder and both behavioral and emotional disorder in the respondents (n=138)

Disorder in respondents	Frequency	Percent
Behavioral disorder	92	26.9
Emotional disorder	35	10.2
Emotional + Behavioral disorder	11	3.2

Table- III

Distribution of status of behavioral and emotional disorders in the respondents (n=342)

Behavioral and emotional disorders	SOS						Shishu Paribar						p-value
	Boys		Girls		Total		Boys		Girls		Total		
	n	%	n	%	n	%	n	%	n	%	n	%	
Present	40	51.9	27	38.0	67	45.3	40	41.7	31	31.6	71	36.6	0.105
Absent	37	48.1	44	62.0	81	54.7	56	58.3	67	68.4	123	63.4	
Total	77	100.0	71	100.0	148	100.0	96	100.0	98	100.0	194	100.0	

Data were analyzed using chi-square test

Table-IV

Distribution of respondents by different types of emotional disorders (n=138)

Emotional disorders	SOS						Shishu Paribar					
	Boys		Girls		Total		Boys		girls		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Major depressive disorder	2	2.6	0	0	2	1.4	0	0	3	3.1	3	1.5
Generalized anxiety disorder	0	0	0	0	0	0	1	1.0	0	0.0	1	0.5
Obsessive compulsive disorder	0	0	0	0	0	0	1	1.0	0	0.0	1	0.5
Specific Phobia	12	15.6	8	11.3	20	13.5	10	10.4	2	2.0	12	6.2
Social Phobia	2	2.6	1	1.4	3	2.0	7	7.3	1	1.0	8	4.1
Other emotional disorders	2	2.6	1	1.4	3	2.0	2	2.1	0	0.0	2	1.0

Multiple responses

Table-V

Distribution of different types of behavioral disorders in the respondents (n=138)

Behavioral disorders	SOS						Shishu Paribar					
	Boys		Girls		Total		Boys		Girls		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Hyperkineticdisorder	17	22.1	9	12.7	26	17.6	15	15.6	10	10.2	25	12.9
Conduct disorder	3	3.9	6	8.5	9	6.1	2	2.1	5	5.1	7	3.6
Oppositional defiant disorder	17	22.1	15	21.1	32	21.6	16	16.7	18	18.4	34	17.5
Other behavioral disorder	0	0	0	0	0	0	0	0	3	3.1	3	1.5

Table- VI

Association between Age, length of stay at facility, sex, children parent living status, previous stay, BMI and the behavioral and emotional disorder of the respondents (n=138)

Variables		SOS						Shishu Paribar						p-value
		Behavioral and emotional						Behavioral and emotional						
		Present		Absent		Total		Present		Absent		Total		
		n	%	n	%	n	%	n	%	n	%	n	%	
Age (Years)	5-9	25	39.7	38	60.3	63	100.0	17	25.8	49	74.2	66	100.0	0.362
	10-14	23	57.5	17	42.5	40	100.0	45	45.0	55	55.0	100	100.0	
	15-18	19	42.2	26	57.8	45	100.0	9	32.1	19	67.9	28	100.0	
Lengthof stay	0-4	13	31.7	28	68.3	41	100.0	39	31.5	85	68.5	124	100.0	0.010
(Years)	5-9	30	50.8	29	49.2	59	100.0	30	48.4	32	51.6	62	100.0	
	10+	24	50.0	24	50.0	48	100.0	2	25.0	6	75.0	8	100.0	
Sex	Boys	40	51.9	37	48.1	77	100.0	40	41.7	56	58.3	96	100.0	0.016
	Girls	27	38.0	44	62.0	71	100.0	31	31.6	67	68.4	98	100.0	
Childrenparent	No parents	34	47.2	38	52.8	72	100.0	8	26.7	22	73.3	30	100.0	0.839
living status	At least 1 parent alive	33	43.4	43	56.6	76	100.0	63	38.4	101	61.6	164	100.0	
Previous stay	With parents	27	42.2	37	57.8	64	100.0	56	36.6	97	63.4	153	100.0	0.296
	Other then parent	40	47.6	44	52.4	84	100.0	15	36.6	26	63.4	41	100.0	
BMI	Underweight	53	46.9	60	53.1	113	100.0	50	36.0	89	64.0	139	100.0	0.888
	Normal	13	39.4	20	60.6	33	100.0	19	39.6	29	60.4	48	100.0	
	Obese	1	50.0	1	50.0	2	100.0	2	28.6	5	71.4	7	100.0	

Table-VII

Association between foster mother education and SRQ score with behavioral and emotional disorder of the respondents (n=138)

Variables	Behavioral and Emotional disorders				Total		p-value
	Present		Absent				
	n	%	n	%	n	%	
Education							
Secondary	34	54.0	29	46.0	63	100.0	
Higher Secondary	27	48.2	29	51.8	56	100.0	0.009
Graduate and above	77	34.5	146	65.5	223	100.0	
Total	138	40.3	204	59.7	342	100.0	
SRQ Score	3.68±3.21	4.26±3.43					0.116

Discussion:

The study was carried out on boys and girls with age 6-18 years. Most of the children were primary education status.

Two studies conducted in Bangladesh on general child and adolescent population found overall prevalence of psychiatric disorder 15.2% and 18.4%.[13,14] The present study found that over all prevalence of behavioral and emotional disorders was 40.35%. This finding indicated higher prevalence of psychiatric morbidity among orphan children then general children and adolescents. On the other hand, finding of the current study compatible with the study conducted on children in the care of a children aid society in London and Middlesex where overall prevalence of psychiatric disorder was reported 41%-63%, further a reviewed literature found prevalence rates of psychopathology among children in foster care as between 19% to 48%.[15,16] Study conducted in a conventional orphanage in Dhaka city was found overall prevalence of psychiatric morbidity 25.2%.[10] A comparative study in USA showed the levels of psychopathology were significantly higher among the foster care children than among the economically disadvantaged children who had never placed in out of home care. Both internalizing and externalizing disorders were found higher among foster children.[17] Study conducted on underprivileged children and adolescent in Dhaka city found psychiatric morbidity 22.9%.[18] Significantly higher emotional and behavioral disorders revealed among orphans who were placed in institution where daily routine was determined by strict rule and schedule.[19] High rate of psychological morbidity and developmental delay was found among children placed in care of children aid agency.[20]The current study showed over all prevalence of behavioral disorder as 26.9%.A representative study conducted in orphanage in Karachi, Pakistan, revealed over all prevalence of behavioral disorder 33%.[21]

The present study found emotional disorder 10.2% which was nearer to study finding 14.3% conducted among the children of a conventional orphanage of Dhaka city.[10] In this study, overall psychiatric disorder was found to be more among the male respondent than female respondent which was compatible to the Isle of weight study which showed overall prevalence of psychiatric disorder in boys being twice than in girls.[22] In the present study, specific phobia found in higher proportion among the boys probably due to more participation of younger children. Younger children reported internalizing disorders more frequently than adolescents.[15] In the study, hyperkinetic disorder and oppositional defiant disorder were more frequent. Institutional rearing is associated with hyperkinetic disorder.[23] Among 'in care' children 17.6% had the diagnosis of hyperkinetic disorder.[24] In the present study, conduct disorder was found higher among girl respondents. Study in London and Middlesex estimated high prevalence of conduct disorder among girls than boys.[15] Early mother infant interaction was very important in children's development. Orphans lack mother's proper affection. This deficit becomes apparent later by aggression or other conduct problem.[25] The present study revealed significant relationship between higher length of stay in the orphanage and increased prevalence of psychiatric disorder. Children institutional cares are extremely vulnerable to psychological problem and institutionalization in long term, in early childhood increases the likelihood that they will grow into psychologically impaired and economically unproductive adult.[9]

Present study revealed that large proportion of children suffering from emotional and behavioral disorder who had no parent and or lived other than parents before coming to orphanage. A study among children of a conventional orphanage of Dhaka city showed that the children whose parents died at or before 4 years of age, suffered more from psychiatric disorder then those whose parents died after completion of four year.[10] Inadequate or absence of early parental rearing may contribute as a risk factor for higher prevalence of psychiatric disorder among children of orphanage .Underweight among the respondents may be another contributing factor for increased development of behavioral and emotional disorders among the study population and similar finding was observed in the study in Karachi,Pakistan.[21] The present study showed significant association between children psychiatric disorder with low education level of foster mother.

However, the study had several limitations such as selection of single center for each group of population, study groups were not well matched in their socio demographic variables, small sample size and were carried out only in Dhaka city in Bangladesh. These factors limit the generalization of the result of the study.

Conclusion:

The findings of the study revealed significant number of cases with emotional and behavioral disorder among orphan children. This findings need to be addressed carefully. Broad based replication study only could confirm these findings. Awareness on mental health problem among orphan children at all levels especially professionals related to the facilities should be built up. A follow up study may be carried out for better understanding of this issue and to find out temporal and causal association.

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