

Prevalence and Determinants of Behavioral Problems Among Adolescents (10-19 years old) Living in Orphanage Facilities of District Peshawar, Khyber Pakhtunkhwa, Pakistan

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Prevalence and Determinants of Behavioral Problems Among Adolescents (10-19 years old) Living in Orphanage Facilities of District Peshawar, Khyber Pakhtunkhwa, Pakistan

Background: Globally, out of every five children and adolescents, one suffers from a mental disorder. According to WHO, about 10-12% of children have behavioral problems. Behavioral problems can be found in children of every age and usually starts early in their life. Children raised in orphanages are a susceptible group because they are deprived of one or both of their parents. They find many difficulties and are exposed to physical and psychological risks; consequently, they are at increased risk for developing behavioral problems.

Objective: To determine the prevalence and determinants of Behavioral problems among Adolescents (10-19 years old) living in orphanage facilities of District Peshawar.

Method: A cross sectional survey was conducted from February 2016 to July 2016 in the orphanages of District Peshawar, registered with Social Welfare Department. Total of 360 adolescents of both genders of age group 10 to 19 years were included in the study. Data was collected using Strength and Difficulty Questionnaire (SDQ). Data was analyzed using SPSS version 16.

Results: The prevalence of behavioral problem was 33.9%. The cross comparative analysis of behavioral problems with independent variables showed that the Age, Gender, Type of orphanage and Parent's status were significantly associated with behavioral problems. However, Time period of institutionalization and Age at parents' demise had insignificant association with behavioral problems.

Conclusion: A high burden of behavioral problems was found among adolescents living in orphanages of District Peshawar. Age, Gender, Type of orphanage and Parents' status which were associated with behavioral problems, can be target of intervention to reduce behavioral problems among adolescents living in orphanages.

Key words: Behavioral problems, Adolescents, Orphanages, Behavioral problem, Emotional problem, Conduct problem, Hyperactivity, Peer problem, Pro-social behavior, Strength and difficulty questionnaire.

Introduction:

Childhood is the most important and decisive period of human life. A healthy childhood is crucial for future growth and development. The parent, family, society and environment which formulate attitude, behavior, manner and emotions greatly affect the childhood¹. Millions of orphans and abandoned children across the world are deprived of this crucial phase of life. In the absence of the child's parents, grandparents, or reluctant relatives not willing to take care of the child, orphanage act as an institution to provide care and support for these unfortunate children.²

⁴ The orphanages can provide a protected and positive substitute to offensive and insecure family or community environments but they can't give individualized and family fostering.⁴ Orphanage children are exclusively susceptible to many psychosocial threats of institutional care compared to children living with their families³. Despite having a proper shelter, children in institution care find difficulties such as poor physical health, poverty, attachment disorder, mental health difficulty, and inadequate social skills⁴. Some children have difficulties regarding reading, language, or attention. Some circumstances could increase the ¹² risk for behavioral and developmental problems. Abuse, neglect, and malnutrition, for example, can cause effects for long-lasting^{5,6}.

Children in orphanages are insecurely bound, low in confidence, exhibit negative behavior, lack sympathy, display discriminate affection towards adults, susceptible to disobedience, and are more violent than family grown children. Many studies have concluded that institutionalized children ¹ have a disproportionately high prevalence of behavioral problems and mental health irregularities like anxiety, aggression, and more depression as compared to

family raised children and identified factors that were associated with higher prevalence of the behavioral problems^{8 9}. These factors were ⁴ causes of receiving institutional care, moves ³ two or more times between institutions, age at first admission, death of one or both of the parents, malnutrition, higher length of stay in the facility, foster mother depression and low level of education of foster mother^{3 10}. On the other hand, some studies reported that regular contact of the orphans with orphanage staff, classroom teachers, parents or relatives; perceived social support; appropriate task involvement; and competency were protective against behavioral problem¹¹.

The lives of millions of people around the world are affected by behavioral problems, but it is studied less than anxiety disorders, psychotic disorders, and mood disorders¹². It is also rated lower than drug or alcohol addiction¹². The emotional or interpersonal maladjustment which is called behavioral problem can put lives into disarray.^{12 13} Behavioral problems can be found in children of every age and usually starts early in life¹⁴. The periods of adolescent and childhood are considered very important because these periods are under the influence of social, emotional, physical and biological factors¹⁵. Alongside developmental changes, children also encounter many social and parental pressures which also make period of adolescent nerve-racking and thus exposing the children more susceptible to developing behavioral, psychological, and emotional problems¹⁶.

There are many risk factors which lead to the development of behavioral problems in children living in orphanages¹⁷. The effects of institutionalization are varying and depend on other aspects. The degree of suffering is not the same for every child who is institutionalized. The varying effects are due to:

- Characteristics of children like attractiveness, basic personality, genetic tendency, and factors of prenatal risk
- Caregiver characteristics i.e. motivation, training, and attitude

- Institutional characteristics i.e. quality, degree of programming, and child-to-caregiver ratio
- Child's history i.e. ⁶ the age of the child at the time of admission in ⁶ the institution.¹⁸

⁶ The significance of early revealing of behavioral problems is recognized globally and many studies have been conducted in developed countries. However, very little scientific research about behavioral problems has been conducted in developing countries like Pakistan. This survey would provide baseline data about the existence of behavioral problems among the adolescents in orphanages and provide some guidelines to health authorities and social welfare department to take necessary steps regarding this issue to protect this vulnerable population from behavioral problems.

Methods and Materials:

⁸ A cross-sectional survey was conducted from February 2016 to July 2016 in the orphanages of District Peshawar, KPK, Pakistan. There were total five orphanages in district Peshawar registered with Social Welfare Department i.e. Dar ul Atfal, Social Welfare Home, Aghosh Alkhidmat, Almadina International School and Hostel, Mercy Educational Complex The first two were run by the Government and other three were run by private sector.

There were approximately 930 children in the five orphanage facilities. The number of Adolescents in the age group 10 to 19 was approximately 360. All adolescents of both genders of age group 10 to 19 years were included in the study and the adolescents who were not willing to participate in the study or already been diagnosed with psychological and behavioral problems by physician were excluded.

⁷ The approval/permission was obtained from KМУ Ethics board. The purpose of the study was explained to the head of the orphanages and an informed written consent was obtained from them. Similarly, a written consent was also taken from the wardens of the adolescents and from adolescents who were above or 15 years of age.

The data was collected in the orphanages through a validated and self-administered version of SDQ, it measures 25 attributes; some positive and some negative. The items are grouped into five sub-scales of five items each, generating scores for Emotional problem, Conduct problem, Hyperactivity, Peer problem and Pro-social behavior¹⁹. Before data collection, an appropriate level of trust was developed with the Adolescents. Each question was explained to them and then they were asked to mark the correct option.

For data analysis, SPSS version 16 was used. Mean and SD were calculated for Age. Frequencies and percentages were calculated for gender and behavioral problems. Chi-square test was used to determine the association of the Age, Gender, Type of orphanage, Time period of institutionalization, Parent's status and Age at parent's demise with these Behavioral problems.

Results:

A total of 360 adolescents from five orphanages registered with Social Welfare Department were included in the study, out of them 334 (92.8%) were males and 26 (7.2%) females. The prevalence of behavioral problem was 33.9%. Among the behavioral problems, Conduct problem had the highest prevalence 24.4%. as shown in the following table.

Table 1: Frequencies and Percentages of Study Variables

Variable	Frequency	Percentage
No of Adolescents in Orphanages		
Dar ul Atfal	25	6.9
Social Welfare Home	15	4.2
Aghosh Alkhidmat	81	22.5
Almadina International School and Hostel	40	11.1
Mercy Educational Complex	199	55.3
Gender		
Male	334	92.8
Female	26	7.2
Behavioral Problems		

Emotional Problem	67	18.6
Conduct Problem	124	34.4
Hyperactivity	30	8.3
Peer Problem	65	18.1
Pro-social behavior	10	2.8
Total Difficulty Score	122	33.9

The determinants of behavioral problems Age, Gender, and Type of orphanage all were significantly associated with behavioral problems as shown in table 2(a).

Table 2(a) Association of Behavioral Problems with Independent Variables

Determinants	Behavioral Problems						P Value	Significance
	Emotional Problem	Conduct Problem	Hyperactivity	Peer Problem	Prosocial Behavior	Total Difficulty Score		
Age Group							≤ 0.01	Significant
Group 1 (10-12.9)	30	87	25	42	3	87		
	15.80%	45.80%	13.20%	22.10%	1.60%	45.80%		
Group 2 (13-15.9)	31	32	5	15	5	29		
	25.40%	26.20%	4.10%	12.30%	4.10%	23.80%		
Group 3 (16-18.9)	6	5	0	8	2	6		
	12.50%	10.40%	0.00%	16.70%	4.20%	12.50%		
Gender							≤ 0.01	Significant
Male	66	102	29	60	10	107		
	19.80%	30.50%	8.70%	18.00%	3.00%	32.00%		
Female	1	22	1	5	0	15		
	3.80%	84.60%	3.80%	19.20%	0.00%	57.70%		
Type of Orphanage							≤ 0.01	Significant
Govt	3	36	6	17	0	37		
	7.50%	90.00%	15.00%	42.50%	0.00%	92.50%		
Private	64	88	24	48	10	85		
	20.00%	27.50%	7.50%	15.00%	3.10%	26.60%		

Similarly, the Time Period of Institutionalization and Age at Parents' Demise were statistically not significant. However, there was significant association between Parent's status and behavioral problems as shown below in table 2(b).

Determinants	Behavioral Problems
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	Emotional Problem	Conduct Problem	Hyperactivity	Peer Problem	Prosocial Behavior	Total Difficulty Score	P Value	Significance
Time Period of Institutionalization							0.81	Not Significant
Group 1 (1-4.9 years)	40	70	17	36	6	76		
	20.40%	35.70%	8.70%	18.40%	3.10%	38.80%		
Group 2 (5-8.9 years)	21	46	13	21	3	40		
	15.60%	34.10%	9.60%	15.60%	2.20%	29.60%		
Group 3 (9-12.9 years)	6	8.00%	0	8	1	6		
	20.70%	27.60%	0.00%	27.60%	3.40%	20.70%		
Age at Parents' Demise							0.91	Not Significant
Group (1-4.9 years)	33	65	14	30	4	61		
	18.60%	36.70%	7.90%	16.9%	2.30%	34.50%		
Group 2 (5-10.9 years)	28	54	14	35	6	56		
	17.20%	33.10%	8.60%	21.50%	3.70%	34.40%		
Group 3 (11-14.9 years)	6	5	2	0	0	5		
	30.00%	25.00%	10.00%	0.00%	0.00%	25.00%		
Parent's Status							≤ 0.01	Significant
Mother deceased	26	86	19	46	3	92		
	20.60%	68.3	15.10%	36.50%	2.40%	73.00%		
Father deceased	41	38	11	19	7	30		
	17.10%	16.20%	4.70%	8.10%	3.00%	12.8		

Table 2(b) Association of Behavioral Problems with Independent Variables

Discussion:

In this study the prevalence of Emotional problem was 18.6%, Conduct problem was 24.4%, Hyperactivity was 8.3%, Peer problem was 18.1%, and Abnormal Pro-social behavior had a prevalence of 2.8 % comparable to a study which found emotional disorder 10.2%¹⁰ and 14.3% conducted among the children of a conventional orphanage of Dhaka city.²⁰ Similarly in another study 7.5% adolescents were at risk for hyperactivity disorder; 37.5% at risk for peer problems and 12.5% with severe peer problem, pro-social behavior was 22.5% while 5% had abnormal pro-social behavior.²¹ However, another study conducted on emotional and

behavioral problems in Egypt reported 27.70% prevalence of conduct problems in children according to teacher's ratings and 20.60% children found in abnormal category with more frequently observed conduct and peer related problems as found by the parents' ratings.²² Similarly in Karachi a study conducted on working children reported that Peer problems (16.9%) were more prevalent among the children followed by Conduct problem (16.7%), Emotional problem (12.0%), hyperactivity and pro-social behavior had a prevalence of (3.6%)²³

The prevalence of behavioral problem found in this study was matching to a study from Karachi conducted to determine the behavioral problems among children living in either in an SOS Village or conventional orphanages reported 33% and 39% prevalence of behavioral problems based on the ratings of foster mother, and teacher's, respectively²⁴. Similarly, a prevalence of 26.9% was reported from a study conducted in Bangladesh¹⁰ and 61% was found in a study conducted in Cairo³.

Among the determinants of behavioral problems Age had significant association with the total behavioral problems. The age group 10 to 12.9 had the highest prevalence 45.8% of behavioral problems which is similar to the study in which age group 10 to 14 years old had highest percentage of behavioral problems¹⁰. The majority of adolescents in orphanages were of age group 10 to 12.9 years and behavioral problem were also prevalent in this age group, as this is the time period of early adolescence which consists of developmental transition from childhood to adulthood, involving multiple physical, intellectual, personality, and social developmental changes.

A statistically significant association was also found between Gender and behavioral problems, the prevalence of behavioral problems was highest in females 57.7% as compared to males 32.0% which is in contrast to other studies which reported highest prevalence of behavioral problems among males, except in one study in which females dominated.^{10,25, 26}

Type of Orphanage and behavioral problems were significantly associated and it was found that the Orphanages run by Government had highest prevalence of total behavioral problems 92.5% than Orphanages run by Private Sectors 26.6%. The facilities provided to the children in private orphanages were better than those of Government. Similarly, in Karachi the prevalence of abnormal behavior on foster mother-rated overall SDQ was somewhat higher in children in conventional orphanages as compared to that in SOS children. This gives some proof that that availability of a home environment and the role of family positively affect children's mental and social advancement²⁴.

Time period of institutionalization had insignificant association with behavioral problems. However, this was in contrast to the study in which length of stay had a positive association with the behavioral problems¹⁰ and another study in which orphanages were found to be protective against behavioral problems.²⁴

No significant association was found between Age at parent's demise and total behavioral. However, the study conducted in orphanages in Dhaka city contradicts this statements by showing that the prevalence of psychiatric disorder was highest among the children whose parents died at or before 4 years of age than those whose parents died after completion of four years²⁰. In a study conducted in Bangladesh behavioral problems were found more among the children who had stayed other than the parent before coming to orphanage¹⁰.

Association of Parent's status with behavioral problem was significant. Behavioral problems were highest among those adolescents whose mothers were deceased (73.0%) than whose fathers were deceased (12.8%). Similar results were obtained by Anna Freud who concluded from several case studies that children living in orphanages are doomed to fail psychologically because of maternal deprivation²⁷ and another psychiatrist John Bowlby also reported that maternal deprivation was the central issue causing psychological damage to orphanage children²⁸.

Limitations:

The Study had some limitations such as:

- Due to lack of resources and time constraints, this study was conducted in District Peshawar only. More effective and valuable results could be obtained if the same could be expanded to the other districts of Khyber Pakhtunkhwa.
- It was a cross sectional study, so it cannot provide casual associations.
- Strength and Difficulty questionnaire was used in this study which is a screening tool. If a diagnostic tool were used it could have showed higher prevalence.

Conclusion:

² This study has provided the important baseline data regarding the ¹ behavioral problems among adolescents living in orphanage facilities of District Peshawar and revealed that the ¹⁵ adolescents living in orphanages were more prone to ³ behavioral problems. The determinants of behavioral problems identified in this study needs to be addressed carefully and its recommended that special emphasis should be given to the adolescents of age group 10 to 13 years, counselling sessions should be arranged for female adolescents, recreational and allied activities should be initiated in Government orphanages and there should be a female care giver especially for adolescents of deceased mother in an attempt to fill in the cavity of their mothers. Finally, further research about institutionalized children is needed including bigger sample with longer period of follow up for more justification and to find out casual or temporal associations.

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