

## A Descriptive Study on Behavioral and Emotional Problems in Orphans and Other Vulnerable Children Staying in Institutional Homes

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### ABSTRACT

**Introduction:** Orphans and the other vulnerable children and adolescents (OVCA) living in institutional homes are more prone to behavioral and emotional problems than others as they are deprived of a family's love and care. There is a dearth of studies focusing on the psychological health of these children in India. Hence, we have conducted a cross-sectional descriptive study to explore the behavioral and emotional problems in these institutionalized children. **Materials and Methods:** The sample consisted of 292 orphans and OVCA in institutional homes of Visakhapatnam city. The sociodemographic data were collected using a semi-structured questionnaire. The Strengths and Difficulties Questionnaire (SDQ) with impact supplement was used to assess the behavioral and emotional problems in them. **Results:** In our study, 49 (16.78%) out of 292 children and adolescents were found to be having behavioral and emotional problems. Factors such as age, sex, reason for being in the institute, age of admission, and years of stay in the home were all seen to be significantly associated ( $P < 0.05$ ) with emotional and behavioral problems. Conduct problems (34.90%) were found to be most prevalent followed by peer problems (15.80%), emotional problems (14.70%), hyperactivity (8.60%), and low prosocial behavior (3.40%). **Conclusion:** The present study shows that the orphans and OVCA in institutional homes are vulnerable to behavioral and emotional problems. The screening for conduct problems, emotional problems, hyperactivity, and peer problems needs to be done at a regular basis for these children. Given the paucity of data in this regard, several multicenter studies also need to be done to get an overall comprehensive view of these problems.

**Key words:** Adolescents, behavioral, children, emotional, institutional homes, orphans, vulnerable

### INTRODUCTION


Children and adolescents have always been an important focus of study for mental health researchers. Studies have highlighted emotional problems such as

depression, anxiety, and difficulties in social interaction as well as behavioral problems such as hyperactivity and conduct problems in them.<sup>[1,2]</sup>

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Among the children too, some groups are more at risk of developing these psychological problems than the others. Children and adolescents who are orphans, runaways, or abandoned by families and bring reared in institutional homes form one such vulnerable group according to the Integrated Child Protection Scheme, India.<sup>[3]</sup> Review of literature shows the prevalence of behavioral and emotional problems among orphans and other vulnerable children to be from 18.3% to 64.53%,<sup>[4-9]</sup> while in normal community samples, it was reported to be between 8.7% and 18.7%.<sup>[10-12]</sup>

Studies have also shown that the prevalence of emotional and behavioral problems among children and adolescents brought up in institutional homes is higher as compared with similarly aged youngsters brought up by their own families.<sup>[8]</sup>

A study done by Rahman *et al.* found a high prevalence of 40.35% of behavioral and emotional disorders among orphan children and adolescents in institutional care.<sup>[4]</sup> In another study by El Koumi *et al.* in Cairo, the prevalence of behavioral disturbances was 64.53% among those in institutional homes.<sup>[13]</sup>

Emotional and behavioral problems are more among orphans and other vulnerable children because they are exposed to abuse, exploitation, neglect, lack of love and care of parents. They are also more likely to be emotionally needy, insecure, and poor. In addition to these factors, most of them are brought up in institutional homes where individual care is inadequate. All these factors can socially and emotionally impair these children.<sup>[14-16]</sup>

This highly vulnerable group of children and adolescents is thus more likely to have multiple psychological problems. A study in Karachi, Pakistan, on various types of behavioral problems in SOS or other conventional orphanages found that 9% of children had emotional problems, 50% conduct problems, 13% hyperactivity, 84% peer problems, and 47% problems in prosocial behavior.<sup>[17]</sup>

In India, along with the growing total population of the country, the number of orphan and abandoned children is also increasing. According to the UNICEF 2012, there are more than 25 million orphan or abandoned and about 44 million destitute children in India.<sup>[18]</sup> Very few studies have been done on the psychological health of these children and adolescents leaving a yawning gap for further research in this regard in India.

Among the few studies done, Shanthi and Jeryda Gnanajane Eljo in Tiruchirappalli found the prevalence of behavioral and emotional problems to be 56% among institutionalized street children.<sup>[6]</sup>

In Mangalore, a study done by Sujatha and Jacob found that among orphan adolescents, 7.5% were at risk for hyperactivity disorder, 37.5% were at risk for peer problems, and 12.5% had severe peer problems. Abnormal prosocial behavior was found in 5%, while 22.5% were at risk for prosocial behavior.<sup>[19]</sup>

Emotional and behavioral problems influence the child's overall development, specifically academic and social outcome as adults.<sup>[20]</sup> Hence, there is a need to assess and identify mental health problems in these institutionalized children so that suitable intervention measures can be designed for them at the right time. Given the paucity of studies in this regard in India, we have conducted a cross-sectional descriptive study to fill the information and knowledge gap about the extent and types of emotional and behavioral problems found in orphans and other vulnerable children adolescents (OVCA) living in institutional homes.

### Objectives of the study

1. To study the prevalence and the types of behavioral and emotional problems in orphans and OVCA living in institutional homes
2. To study the association between sociodemographic parameters and behavioral and emotional problems in these children
3. To study the impact of behavioral and emotional problems on the child's life.

## MATERIALS AND METHODS

### Study type and setting

This study is a cross-sectional, observational, descriptive study. The study was done in various institutional homes in Visakhapatnam city in Andhra Pradesh, India.

### Study sample

The sample for the study was 292 OVCA from six institutional homes in Visakhapatnam.

In the present study, the term "orphan" refers to those children and adolescents who have lost both the parents and the term "vulnerable" refers to those in institutional homes who were abandoned by their parents or those who had run away from home and had no contact with their families. At times, the term "children" is used to refer to both "children" and "adolescents."

To calculate the sample size, a pilot study was done on 30 children and adolescents being brought up in various institutional homes. Of these, 18% were found to have emotional and behavioral problems. Then, the sample size was calculated with a 5% type I error and 5% absolute error/precision. It came to be 230 children. Our final sample size was 292 children and adolescents.

### Inclusion criteria

Children and adolescents aged between 4 and 17 years who are “orphans” or “vulnerable” (as defined above) and staying in institutional homes in Visakhapatnam.

### Exclusion criteria

1. Those children who are having regular contacts with the parental family through regular weekend or vacation visits
2. Those children who are suffering from intellectual disability and severe chronic medical illness
3. Those whose duration of stay in the home was <1 month
4. Juvenile delinquents.

### Ethics

Ethics approval for the study was obtained from the Institutional Ethics Committee, GITAM Institute of Medical Sciences and Research, Visakhapatnam, India. An official approval was sought and obtained from the Chairman of Child Welfare Committee, Visakhapatnam, regarding the access to institutional homes within his/her jurisdiction for collection of data. A list of Institutional Homes for Orphans and OVCA in Visakhapatnam was drawn up. Since the study sample consisted of minors, informed consent was taken from the directors/superintendents of the institutional homes. A total of six such homes agreed to be a part of our study. These included homes run by both the government and nongovernment organizations. The names of the subjects as well as the institutional homes were kept confidential.

### Tools of the study

Semi-structured sociodemographic questionnaire: For collection of data regarding age, sex, reason for being in the institute, age of admission, years of stay in the institute and academic performance.

Strengths and Difficulties Questionnaire (SDQ) with impact supplement: The SDQ is a brief screening questionnaire for emotional and behavioral problems in children and adolescents. It consists of 25 items covering conduct problems, emotional problems, peer problems, hyperactivity problems, and prosocial behavior.<sup>[21]</sup> When compared to other questionnaires such as Rutter questionnaires and Child Behavior Checklist, SDQ has an advantage of being in a shorter format, single form, and better in detecting inattention and hyperactivity.<sup>[22,23]</sup> SDQ has been used to assess emotional and behavioral problems in various countries and diverse cultures all across the world.<sup>[24-26]</sup> The use of parent report, teacher report, and self-report versions of SDQ in identifying the psychiatry diagnosis in children and adolescents was found to have a specificity of 80% and sensitivity of 85%.<sup>[27]</sup>

### Procedure

Visits were arranged to the various institutional homes. Data were collected by the investigating team from the primary caretaker for each child separately. The sociodemographic questionnaire was filled in by interviewing the child and primary caretakers and by consulting their individual files. The SDQ along with the impact supplement was filled in by the primary caretaker of each child. The duration of participation of each interviewee was around 15–20 min.

### Statistical analysis

The data were coded and transferred onto Excel sheet, and statistical analysis was done using SPSS software version 21. The nominal and ordinal variables were expressed in counts and percentages. To find the association between parameters, significance tests such as Chi-square test and Fisher’s exact test were used.  $P < 0.05$  was taken as statistically significant.

## RESULTS

In the current study, the total sample consisted of 292 orphans and OVCA. Of these, 109 (37.3%) belonged to the age group 4–11 years and 183 (62.7%) belonged to the age group 12–17 years. The number of boys ( $n = 175$ ) in the sample was more than the girls ( $n = 117$ ). The reason for being in the institute for majority of the children was that they were abandoned by family (54.8%), followed by orphans (29.4%) and runaways (15.8%). Most of the children in institutional homes had been staying there from 1 to 5 years (50.3%). The age of admission to the institutional home for majority of the children (53.3%) was between 5 and 10 years; the academic performance was reported “average” for 46.2% of children [Table 1].

In our study, based on the SDQ, a total of 49 (16.78%) children and adolescents of a study sample of 292 had scores more than the cutoff score of 16, thus marked positive for emotional and behavioral problems. Among the orphans and OVCA reared in institutional homes, age, sex, reason for being in the institute, age of admission, and years of stay in the home were all seen to be significantly associated ( $P < 0.01$ ), with having emotional and behavioral problems [Table 2].

In the present study, the percentage of orphan children and adolescents in institutional homes having conduct problems was 34.90%, peer problems 15.80%, emotional problems 14.70%, hyperactivity 8.60%, and 3.40% had low prosocial behavior [Figure 1].

In this study, the subscales of the SDQ were also scored separately and studied for association with sociodemographic factors by doing the Chi-square test

**Table 1: Sociodemographic characteristics of the study sample**

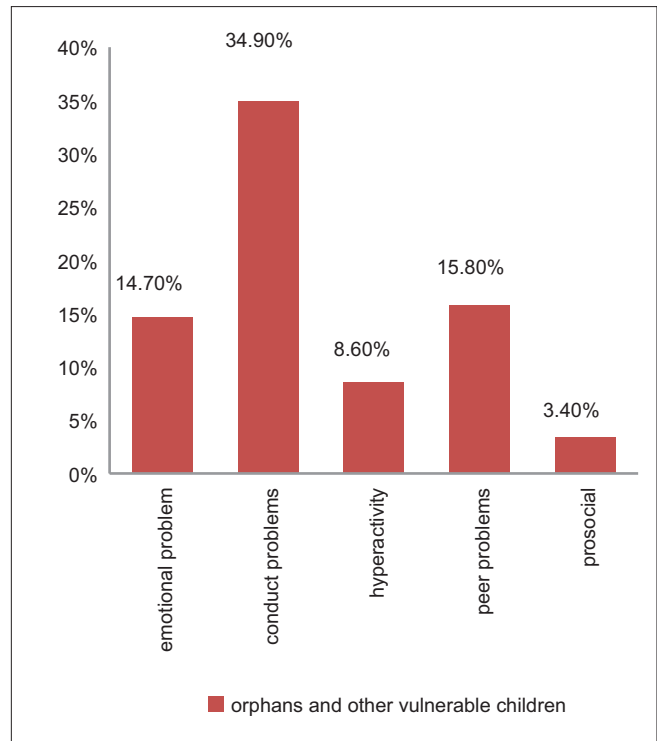
| Sociodemographics                          | Frequency (%) |
|--|---------------|
| Total sample                               | 292 (100)     |
| Age (years)                                |               |
| 4-11                                       | 109 (37.3)    |
| 12-17                                      | 183 (62.7)    |
| Sex  |               |
| Boys                                       | 175 (59.9)    |
| Girls                                      | 117 (40.1)    |
| Reason for being in the institutional home |               |
| Death of parents                           | 86 (29.4)     |
| Abandoned by family                        | 160 (54.8)    |
| Runaways                                   | 46 (15.8)     |
| Years of stay in the home                  |               |
| <1   | 85 (29.1)     |
| 1-5  | 147 (50.3)    |
| >5   | 60 (20.5)     |
| Admitted age (years)                       |               |
| Below 5                                    | 33 (11.3)     |
| 5-10                                       | 156 (53.3)    |
| >10  | 103 (35.3)    |
| Academic performance                       |               |
| Poor                                       | 38 (13.0)     |
| Average                                    | 135 (46.2)    |
| Good                                       | 119 (40.8)    |

**Table 2: Emotional and behavioral problems and sociodemographics**

| Sociodemographics            | Emotional and behavioral problems |             | $\chi^2$ | P       |
|------------------------------|-----------------------------------|-------------|----------|---------|
|                              | Absent (%)                        | Present (%) |          |         |
| Total                        | 243 (83.22)                       | 49 (16.78)  |          |         |
| Age (years)                  |                                   |             |          |         |
| 4-11                         | 98 (89.91)                        | 11 (10.09)  | 5.57     | 0.013*  |
| 12-17                        | 145 (79.23)                       | 38 (20.77)  |          |         |
| Sex                          |                                   |             |          |         |
| Male                         | 132 (75.43)                       | 43 (24.57)  | 18.98    | 0.001** |
| Female                       | 111 (94.87)                       | 6 (5.13)    |          |         |
| Reason for being Institute   |                                   |             |          |         |
| Death of Parents             | 78 (90.70)                        | 8 (9.30)    | 10.85    | 0.002** |
| Abandoned by family          | 128 (80)                          | 32 (20)     |          |         |
| Runaways                     | 37 (80.43)                        | 9 (19.57)   |          |         |
| Years of stay in the home    |                                   |             |          |         |
| <1                           | 63 (74.12)                        | 22 (25.88)  | 7.23     | 0.027*  |
| 1-5                          | 127 (86.40)                       | 20 (13.60)  |          |         |
| >5                           | 53 (88.33)                        | 7 (11.67)   |          |         |
| Admitted age in home (years) |                                   |             |          |         |
| Below 5                      | 31 (93.94)                        | 2 (6.06)    | 15.52    | 0.001** |
| 5-10                         | 138 (88.46)                       | 18 (11.54)  |          |         |
| >10                          | 74 (71.84)                        | 29 (28.16)  |          |         |
| Academic performance         |                                   |             |          |         |
| Poor                         | 30 (78.95)                        | 8 (21.05)   | 5.25     | 0.16    |
| Average                      | 107 (79.26)                       | 28 (20.74)  |          |         |
| Good                         | 106 (89.08)                       | 13 (10.92)  |          |         |

\*\* $P < 0.01$ ; \* $P < 0.05$

and Fisher’s exact test. Emotional problems were found to be significantly associated with age ( $P < 0.01$ ),



**Figure 1: Types of emotional and behavioral problems in the population sample**

gender ( $P < 0.01$ ), reason for being in the home ( $P < 0.05$ ), and age at the time of admission into the home ( $P < 0.01$ ). Conduct problems were found to be significantly associated with age ( $P < 0.01$ ), gender ( $P < 0.01$ ), reason for being in the institute ( $P < 0.01$ ), duration of stay ( $P < 0.05$ ), and age at the time of admission into the home ( $P < 0.01$ ). Hyperactivity was also significantly associated with all the factors, except sex and academic performance. While peer problems were seen to be significantly associated with only gender, poor prosocial behavior was the only one to be significantly associated with academic performance [Table 3].

In the present study, the impact supplement of the SDQ was used to evaluate which domains of the diagnosed children’s and adolescent’s lives were affected by the social and behavioral problems. Of the 49 children having emotional and behavioral problems, 45 were reported as having a negative impact on their overall lives. The results showed that home life (97.7%) was the most commonly affected domain, followed by classroom learning (88.8%), leisure activities (82.2%), and friendships (64.4%) [Table 4].

## DISCUSSION

Children who are deprived of the parental care and a secure family environment often become vulnerable

**Table 3: Subscales of strengths and difficulties questionnaire and sociodemographics**

| Sociodemographics            | Emotional problems |          | Conduct problems |        | Hyperactivity |         | Peer problems |         | Prosocial |         |
|------------------------------|--------------------|----------|------------------|--------|---------------|---------|---------------|---------|-----------|---------|
|                              | Present (%)        | P        | Present (%)      | P      | Present (%)   | P       | Present (%)   | P       | Low (%)   | P       |
| Total                        | 43 (14.73)         |          | 102 (34.93)      |        | 25 (8.56)     |         | 46 (15.75)    |         | 10 (3.42) |         |
| Age (years)                  |                    |          |                  |        |               |         |               |         |           |         |
| 4-11                         | 8 (7.34)           | 0.006**  | 27 (24.77)       | 0.012* | 3 (2.75)      | 0.002** | 12 (11.01)    | 0.09    | 2 (1.83)  | 0.25    |
| 12-17                        | 35 (19.13)         |          | 75 (40.98)       |        | 22 (12.02)    |         | 34 (18.60)    |         | 8 (4.37)  |         |
| Sex                          |                    |          |                  |        |               |         |               |         |           |         |
| Male                         | 37 (21.14)         | <0.001** | 88 (50.29)       | <0.001 | 21 (12)       | <0.001  | 36 (20.58)    | 0.001** | 3 (1.71)  | 0.04*   |
| Female                       | 6 (5.13)           |          | 14 (11.97)       |        | 4 (3.42)      |         | 10 (8.55)     |         | 7 (5.98)  |         |
| Reason for being institute   |                    |          |                  |        |               |         |               |         |           |         |
| Death of parents             | 6 (6.98)           | 0.03*    | 15 (17.44)       | <0.001 | 3 (3.49)      | <0.001  | 9 (10.47)     | 0.09    | 5 (5.81)  | 0.25    |
| Abandoned by family          | 31 (19.37)         |          | 61 (38.12)       |        | 13 (8.12)     |         | 32 (20)       |         | 3 (1.88)  |         |
| Run away                     | 6 (13.04)          |          | 26 (56.52)       |        | 9 (19.57)     |         | 5 (10.87)     |         | 2 (4.35)  |         |
| Years of stay in the home    |                    |          |                  |        |               |         |               |         |           |         |
| <1                           | 15 (17.65)         | 0.59     | 38 (44.71)       | 0.042* | 16 (18.82)    | <0.001  | 11 (12.95)    | 0.66    | 4 (4.70)  | 0.720   |
| 1-5                          | 21 (14.29)         |          | 49 (33.33)       |        | 7 (4.76)      |         | 24 (16.33)    |         | 4 (2.72)  |         |
| >5                           | 7 (11.67)          |          | 15 (25)          |        | 2 (3.33)      |         | 11 (18.34)    |         | 2 (4.33)  |         |
| Admitted age in home (years) |                    |          |                  |        |               |         |               |         |           |         |
| Below 5                      | 2 (6.06)           | 0.007**  | 3 (9.09)         | <0.001 | 1 (3.03)      | <0.001  | 4 (12.13)     | 0.60    | 1 (3.03)  | 0.61    |
| 5-10                         | 17 (10.89)         |          | 45 (28.85)       |        | 7 (4.49)      |         | 23 (14.75)    |         | 4 (2.56)  |         |
| >10                          | 24 (23.30)         |          | 54 (52.43)       |        | 17 (16.50)    |         | 19 (18.44)    |         | 5 (4.85)  |         |
| Academic performance         |                    |          |                  |        |               |         |               |         |           |         |
| Poor                         | 4 (10.53)          | 0.23     | 16 (42.11)       | 0.055  | 4 (10.53)     | 0.400   | 6 (15.79)     | 0.910   | 5 (13.16) | 0.002** |
| Average                      | 25 (18.52)         |          | 54 (40)          |        | 14 (10.37)    |         | 20 (14.82)    |         | 4 (2.96)  |         |
| Good                         | 14 (11.76)         |          | 32 (26.89)       |        | 7 (5.88)      |         | 20 (16.81)    |         | 1 (0.84)  |         |

\*\*  $P < 0.01$ ; \*  $P < 0.05$

**Table 4: The impact of behavioral and emotional problems on the child's life**

| Impact domain      | Number of children (%) |
|--------------------|------------------------|
| Home life          | 44 (97.7)              |
| Friendships        | 29 (64.4)              |
| Classroom learning | 40 (88.8)              |
| Leisure activities | 37 (82.2)              |

to a host of psychological problems and psychiatric disorders. These children are then usually reared in institutional homes set up by the government or private agencies, which provide some semblance of order into their lives. In these homes also, the problems of overcrowding, inadequate personal attention, poor academic environment, and frequent moves may affect the psychological health of these children. The objective of our study was to evaluate the orphans and OVCA staying in these institutional homes for behavioral and emotional problems. For this purpose, we took a sample of 292 children being brought up in six of the institutional homes in Visakhapatnam city.

In our study, 49 (16.78%) of 292 children were found to have behavioral and emotional problems. Another similar study done in Tiruchirappalli, India, among orphans in institutional homes has reported a prevalence of emotional and behavioral problems to be 56%.<sup>[6]</sup> The prevalence was found to be 40.35% among the children living in an orphanage in Dhaka

city.<sup>[4]</sup> Another study using SDQ questionnaire found 49% of Ghanaian orphans and vulnerable children to be having emotional and behavioral problems.<sup>[7]</sup> Other studies done elsewhere have shown the prevalence rate to be between 18.3% and 64.53%.<sup>[4-9]</sup> In a study done by Simsek *et al.*, the prevalence of emotional and behavioral problems among children and adolescents reared in orphanages was found to be higher (23.2%) compared with a nationally representative community sample of similarly-aged youngsters brought up by their own families (11%).<sup>[8]</sup> In our study, the rate of emotional and behavioral problems among orphans and OVCA was found to be less compared to most of the above-mentioned studies. This may be because we have done our study in both government and private institutional homes, whereas other studies have been mostly conducted exclusively in government homes. The private institutional homes tend to be more selective in their admission of children, thus weeding out the problematic children at the initial stage itself. Other sociodemographic and methodological differences may also cause a variation in prevalence rates.

Describing the sociodemographics of the present study, our sample of 292 subjects consisted of 37.3% children (4–11 years) and 62.7% adolescents (12–17 years). In this sample, boys (59.9%) slightly outnumbered girls (40.1%). The reason for admission for the majority of the children into institutional homes

was abandonment (54.8%), followed by orphanhood (29.4%) and being a runaway from family home (15.8%). The reasons for abandonment of children may be illegitimacy, divorce of parents, abuse, and financial difficulties.<sup>[28,29]</sup> In our study, a majority of runaways from home had done so because of physical or sexual abuse at home and school difficulties and occasionally because of love affairs too. Most of the children (50.3%) had been admitted to these homes between 5 and 10 years of age. Studies have shown that in institutional homes, factors such as age of admission, reason for admission including neglect and abuse, frequent moves and transfers, poor health and care, lack of regular contact with caregivers, substance abuse, and other psychosocial factors were significantly associated with an increased risk of behavioral and emotional problems.<sup>[5,13]</sup>

The sociodemographic details of our study sample differ by varying degrees from other studies done on this topic elsewhere, depending upon the geographical areas, type of institutional homes, and other sociocultural factors.<sup>[8,28]</sup>

Most of the other studies on institutionalized children report poor academic performance.<sup>[15,28]</sup> The primary caregivers in our study described the children's academic performance to be average or good in majority of the cases with only 13% being described as poor. This can be because of low expectations of the primary caretakers of the children. In fact, some of the children who had run away from their families told us that the pressure to excel in studies as well as the discipline in institutional homes was much less as compared to their own family homes.

In our sample, more number of adolescents (20.77%) had emotional and behavioral problems as compared to the younger children (10.09%), and boys (24.57%) were more affected than girls (5.13%). This is in accordance with the other studies on orphans, showing emotional and behavioral disorders to be more among boys than girls and also among adolescents, rather than younger children.<sup>[4,16]</sup> As this is also the trend in general community samples, these particular groups may be inherently more vulnerable to psychological problems.<sup>[30]</sup>

Reason for admission in the institute was significantly ( $P < 0.01$ ) linked with abnormal total SDQ scores. Those abandoned by their families (20%) were more likely to have emotional and behavioral problems than those who were orphans or had run away from their families. Simsek *et al.* reported that institutionalization because of abuse by family is also significantly correlated with higher behavior problems.<sup>[8]</sup>

In our study, the age at admission and the duration of the stay in the institutional home were also significantly ( $P < 0.05$ ) associated with the emotional and behavioral problems in children. More number of children with <1 year of stay in the institutional home had abnormal SDQ scores as compared to others who had been there for a longer time. It may be because children feel more settled down in a new environment after 1 year. Contrary to this, Rahman *et al.* showed an association between psychological problems and a longer duration of stay (5–9 years) in institutionalized children.<sup>[4]</sup>

In our study, academic performance was the only sociodemographic factor studied that was not significantly associated with abnormal SDQ score. On the contrary, in a study by Seggane Musisi *et al.*, orphan's bad academic performance was significantly associated with emotional and behavioral problems.<sup>[15]</sup>

The emotional and behavioral problems can present as defensiveness, sadness, having difficulty forming friendships with many children, frequent lying, crying, shouting, screaming, and stealing, sometimes biting or pinching others and throwing things at others.<sup>[28]</sup>

In the present study, most of the orphans and OVCA were found to be having conduct problems (34.90%) followed by peer problems (15.80%), emotional problems (14.70%), hyperactivity (8.60%), and low prosocial behavior (3.40%). Other studies done on institutionalized orphans and OVCA have reported varying rates of emotional and behavioral problems. Sujatha and Jacob showed the prevalence of 12.5% peer problems and 5% abnormal prosocial behavior.<sup>[19]</sup> A study done by Elebiary *et al.* showed the prevalence of 86.0% withdrawal, 73.7% aggressiveness, 66.7% hyperactivity, and 64.9% disobedience among institutionalized children.<sup>[28]</sup> El Koumi *et al.* showed that among the behavioral problems, the prevalence of attention-deficit hyperactivity disorder was high (19.62%) followed by oppositional defiant disorder (17.36%), conduct disorder (9.81%), and depression disorder (7.17%).<sup>[13]</sup> A study by Sg PK *et al.* found the prevalence of conduct problems and peer relationship problems to be 25.3% and 17.2%, respectively.<sup>[31]</sup> As evident, no general trend can be ascertained from these studies. This difference in prevalence rates might be because of the differences in the scales used and the geographic distribution of the study samples.

Discussing the subscales of SDQ in our study, the number of boys having emotional problems, conduct problems, hyperactivity, and peer problems was significantly higher than the girls. The girls were more likely to have poor prosocial behavior. Further, the adolescents had

a higher frequency of emotional problems, conduct problems, and hyperactivity as compared to the younger children. A study done in Kashmir reported that majority of the female children (72.5%) felt emotionally weak in comparison to the male children (47.7%).<sup>[9]</sup> Another study done in Hyderabad also reported girls to be having more emotional and conduct problems than the boys. However, peer problems were seen to be gender neutral. It also reported an almost equal level of hyperactivity among boys and girls.<sup>[32]</sup> Rahman *et al.* also found conduct disorder to be more among the girls than the boys.<sup>[4]</sup> Erol and ŞimŞek found that internalizing problems such as emotional and peer problems were higher for females than males, and externalizing problems such as hyperactivity and conduct problems were higher for males than females.<sup>[5]</sup> Simsek *et al.* showed that orphanage boys presented more attention problems, externalizing and total problems than the girls.<sup>[8]</sup>

In our study, the children who were in institutional homes because of abandonment by family were more likely to have emotional problems while the runaways had more of conduct problems and hyperactivity as compared to others. Children who had been in the institutional home for less than a year were also more likely to have conduct problems and hyperactivity as compared to others who had been there longer. Higher age of admission to the home was linked to emotional problems, conduct problems, and hyperactivity. Poor academic performance was associated with poor prosocial behavior.

A few other studies on institutionalized children have also analyzed these emotional and behavioral problems and have varying findings. The same study by Simsek *et al.* said that factors “age” and “age at first admission” showed low negative correlation with the social, thought, attention problems, and externalizing and total problems ( $P < 0.05$ ). No significant relationship was found between age, age at first admission, and internalizing problems. In their study, it was also reported that children admitted for abuse showed more attention and total problems than those who were admitted because of family disruption or poverty.<sup>[8]</sup> Another study done by Erol and ŞimŞek showed that institutionalization at younger ages increased the level of problem behaviors ( $P < 0.05$ ).<sup>[33]</sup> In a study by Doku and Minnis, age was positively associated with scores on all the psychological variables, except for prosocial behaviors where the correlation was negative.<sup>[7]</sup>

In our study, on evaluation with the impact supplement of SDQ, 45 out of 49 orphans and OVCA with emotional and behavioral problems reported serious impact of these problems on their life. The results showed that

home life (97.7%) was the most commonly affected domain, followed by classroom learning (88.8%), leisure activities (82.2%), and friendships (64.4%). This is in accordance with other studies showing that children with behavior problems have more learning problems, poor social functioning, academic under achievement, and also more numerous and intense family conflicts than the normal controls.<sup>[34-37]</sup>

## CONCLUSION

In our study, we found a prevalence of emotional and behavioral problems to be 16.78% in institutionalized orphans and OVCA. We also found that conduct problems are the most common in this group followed by peer problems and emotional problems. Hyperactivity and low prosocial behaviors were less common. Being an adolescent, a boy, being abandoned, or having a shorter duration of stay in the institutional home increased the risk of having psychological morbidity.

### Limitations and drawbacks

The chief limitation of our study is that it was conducted in one city, and so, the results cannot be generalized. Another drawback is that we did not design or implement any interventional measures as a follow-up to our study.

### Future directions

Very few comprehensive studies have been done on this topic in India till now. Hence, there is a need for more multicenter studies to explore and understand the extent of emotional and behavioral problems among orphans and OVCA staying in institutional homes. There is also a need to put measures into place that will ensure regular screening for psychological problems in these children. Furthermore, to prevent the damaging effect of these psychological problems on the development of children, we need to design and implement specific and timely interventional measures in such institutional homes.

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### Conflicts of interest

There are no conflicts of interest.

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