Research Article

Psychosocial health status of institutionalised orphans in Lucknow district of North India

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Background: Children living in orphanage homes represent a socially vulnerable group at increased risk for psychological issues including anxiety, depression, conduct disorders, and difficulties in forming social relationships. Despite government initiatives, there remains limited local evidence on their health status in India.

Methods: A community-based cross-sectional study was conducted over one year (April 2024–March 2025) in six randomly selected government and private orphanage homes. The study included 114 children aged 11 to 18 years who had resided in the orphanage for at least six months. Data collection involved the use of the strengths and difficulties questionnaire for psychosocial assessment. Descriptive statistics and chi-square tests were applied using SPSS v24.

Results: Among 114 orphanage children aged 11–18 years, 62.3% had abnormal total difficulty scores on the strengths and difficulties questionnaire (SDQ), indicating significant psychosocial problems, while 22.8% were borderline. Peer relationship problems (65.8%) were the most affected domain, followed by conduct problems (44.7%) and hyperactivity (43%). Emotional problems were present in 28% of children, whereas prosocial behaviour was normal in 97.4%. Psychosocial difficulties significantly affected classroom learning and friendships, with boys showing higher psychosocial morbidity than girls ($p<0.05$).

Conclusion: A high prevalence of psychosocial problems was observed among children living in orphanage homes, particularly in peer relationships, conduct, and emotional well-being. Early identification, regular mental health screening, counselling services, and supportive institutional environments are essential to improve their psychosocial health and overall development.

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Introduction

Children living in orphanage homes are among the most vulnerable groups in society because they grow up without stable parental care, emotional attachment, and social support. Orphanages provide shelter, education, and healthcare to children who have lost parental care; however, institutional settings often cannot fully replicate the warmth and individualized attention of family environments. Globally, an estimated 5.4 million children live in institutional care, mostly in low- and middle-income countries.[1,2]

Psychosocial health encompasses emotional, behavioural, and social well-being, including the ability to cope with stress, regulate emotions, and form healthy relationships.[3] Previous studies have consistently reported higher rates of emotional disorders, behavioural problems, hyperactivity, and peer relationship difficulties among children residing in orphanages compared with those living in family-based settings.[4–7] The quality of caregiving and emotional support plays a crucial role in determining their psychosocial outcomes.[6]

Studies from India and other countries have reported a high burden of emotional and behavioural problems among institutionalized children.[7–10] Several studies from different regions of India have evaluated the psychosocial health of institutionalized children; however, considerable regional variation exists in

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the characteristics of orphanage homes, caregiving practices, sociocultural environments, and access to mental health services. Consequently, findings from one geographical setting cannot be directly generalized to another. Moreover, most Indian studies have primarily focused on behavioural or emotional problems, with relatively limited evidence describing the comprehensive psychosocial profile of orphanage children using standardized screening instruments across multiple psychosocial domains. Furthermore, there is a paucity of published data from northern India, particularly from Lucknow district of Uttar Pradesh, where information regarding the psychosocial well-being of children living in institutional care remains scarce.

The Government of India has strengthened child protection services through initiatives such as Mission Vatsalya, which emphasizes the holistic development, rehabilitation, and psychosocial well-being of children requiring institutional care. However, effective implementation of such programmes requires robust local evidence to identify the magnitude and pattern of psychosocial problems and to guide the planning of targeted mental health interventions. Understanding the psychosocial health needs of institutionalized children is essential for developing evidence-based counselling services, life-skills education, peer-support programmes, and routine mental health screening within child-care institutions.

Against this background, the present study was undertaken to assess the psychosocial health status of children residing in government and private orphanage homes in Lucknow district using the validated strengths and difficulties questionnaire (SDQ). By generating region-specific evidence on psychosocial problems and their associated characteristics, this study seeks to address an important knowledge gap and provide information that may support programme planning, policy formulation, and strengthening of mental health services for institutionalized children.

Materials and Methods

Study Design and Setting

A community-based cross-sectional study was conducted among children residing in government and private orphanage homes in Lucknow district, Uttar Pradesh, India. The study was carried out after obtaining approval from the Institutional Ethics Committee. Data collection was undertaken during January 2025 to March 2025, while the overall study, including protocol development, data analysis, and report preparation, was completed during April 2024–March 2025.

Study population

The study population comprised children aged 11 to 18 years residing in registered government and private orphanage homes in Lucknow district.

Inclusion criteria

- Children aged 11 to 18 years.
- Children residing in the orphanage for at least six months before data collection.
- Children who provided assent and whose legal guardian/institutional authority provided informed consent.

Exclusion criteria

- Children who were seriously ill during the study period.
- Children who were unable to participate because of severe cognitive difficulties.
- Children who declined participation or whose guardians did not provide consent.

Sample Size

The sample size for the parent study was calculated based on the expected prevalence of stunting, a key physical-health outcome, at the specified level of confidence and precision. The calculated sample size was subsequently applied to the assessment of both physical and psychosocial health outcomes, as psychosocial health assessment was an integral component of the parent study. A total of 114 children residing in selected orphanage homes in Lucknow who fulfilled the inclusion criteria were included in the study. The present manuscript reports a secondary analysis focusing specifically on the psychosocial health component of the parent Thesis. The final sample size was 114 after adjustment for finite population and 10% non-response rate.

Sampling technique

A multistage random sampling technique was adopted.

In the first stage, area selection was done. Lucknow district was divided into two regions: Cis-Gomti and Trans-Gomti.

In the second stage, after a list of 17 registered orphanage homes was obtained from the District Probation Officer (DPO), Lucknow. After exclusion of orphanages housing only adults (>18 years) or children with special needs, eligible orphanages were selected using multistage random sampling. The final sample comprised six orphanages: two government and two

private orphanages from Cis-Gomti, and two private orphanages from Trans-Gomti.

In the third stage, a list of eligible children aged 11–18 years was prepared from each selected orphanage.

Finally, study participants were selected by simple random sampling from each orphanage in proportion to the number of eligible children residing in that institution until the required sample size was achieved.

Study variables

The primary outcome variable was psychosocial health status as assessed using the SDQ.

Independent variables included

- Age
- Sex
- Educational status
- Age at admission to the orphanage, and
- Duration of stay in the orphanage.

Study tool and data collection

Psychosocial health assessment was carried out using the self-reported Strength and Difficulties Questionnaire (SDQ), a validated behavioural screening tool for children aged 11–18 years. The SDQ consists of 25 items divided into five domains:

- Emotional symptoms
- Conduct problems
- Hyperactivity/inattention
- Peer relationship problems
- Prosocial behaviour

The first four domains together generate the Total Difficulty Score whereas the Prosocial Behaviour Scale is interpreted separately. The Hindi validated version of SDQ was used for assessment.

Data were collected using a pretested semi-structured questionnaire along with SDQ scoring.

Statistical Analysis

Descriptive statistics were expressed as frequency and percentages. Since the primary objective of the study was to describe the psychosocial profile of institutionalized children and examine bivariate associations, Chi-square analysis and Fisher's exact test were considered appropriate. Multivariable analysis was not performed because the study sample size was not planned or powered for regression modelling. For analysis of factors associated with psychosocial difficulties, participants with borderline and abnormal SDQ total difficulties scores were grouped together as "psychosocial difficulties present", while those with normal scores were categorized as "psychosocial difficulties absent". A p-value <0.05 was considered statistically significant. Data analysis was performed using SPSS version 24.

Table 1: Categorization of children according to SDQ scores (N=114)

Psychosocial domain	*Normal*	*Borderline*	*Abnormal*
	SDQ=0-15	*SDQ=16-19*	*SDQ=20-40*
	n (%)	*n (%)*	*n (%)*
Total difficulty score	17(14.9)	26(22.8)	71(62.3)
Emotional problem	65(57)	16(14)	33(28)
Conduct problems	35(30.7)	28(24.6)	51(44.7)
Hyperactivity	48(42.1)	17(14.9)	49(43)
Peer problems	13(11.4)	26(22.8)	75(65.8)
Prosocial	111(97.4)	02(1.8)	01(0.9)

Results

Among the 114 participants, 56.1% were females and 43.9% were males. The majority (43.9%) belonged to the age group of 14 to 16 years, and 63.2% had been residing in orphanage homes for more than three years.

Psychosocial health status according to strengths and difficulties questionnaire

The SDQ impact supplement was positive for 37 children, indicating that these participants experienced psychosocial difficulties affecting one or more areas of daily functioning. Therefore, Table 2 includes only these 37 children. The SDQ assessment showed that 62.3% of children had abnormal Total Difficulty Scores, indicating significant emotional and behavioural problems, while 22.8% were borderline and only 14.9% were normal (Table 1). Peer problems were the most affected domain, followed by conduct problems and hyperactivity.

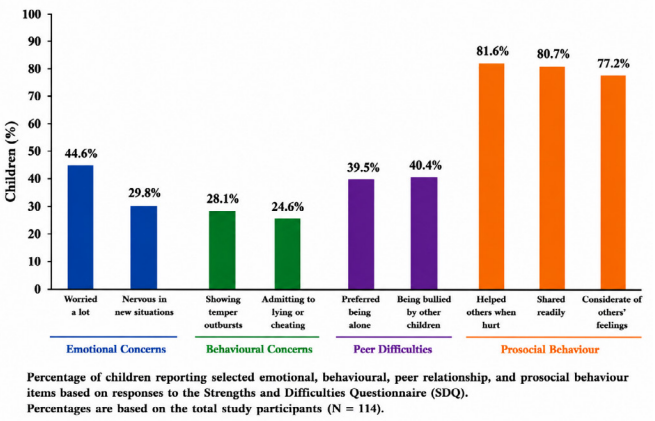

Figure 1: Distribution of selected SDQ item responses among children residing in orphanage homes (N = 114)

Table 2: The impact of psychosocial abnormalities on the child's life

Domain impacted by abnormality	*Frequency of children(n = 37)*			
	Male (n = 34)		*Female (n = 03)*	
	Frequency (n)	*Percentage (%)*	*Frequency (n)*	*Percentage (%)*
Classroom learning	23	62.2	0	0
Friendships	9	24.3	1	33.3
Leisure activities	1	2.7	1	33.3
Home life	1	2.7	1	33.3

Impact on Daily Life

Psychosocial abnormalities mainly affected classroom learning (62.2%) and friendships (24.3%), especially among male children. Leisure activities and home life were less affected.

Gender showed significant association with psychosocial health status ($p = 0.018$), indicating that boys experienced more psychosocial difficulties compared to girls (Table 3).

Discussion

The present study demonstrated a high burden of psychosocial difficulties among children residing in orphanage homes, with a substantial proportion of participants exhibiting abnormal SDQ total difficulty scores. Peer relationship problems emerged as the most affected domain, followed by conduct problems and hyperactivity, whereas prosocial behaviour remained largely preserved. These findings are consistent with the growing body of evidence suggesting that institutionalized children are at increased risk of emotional and behavioural problems compared with their peers living in family-based settings. Similar observations have been reported in studies conducted in India and other countries among children residing in institutional care.[4,7,8]

Peer relationship problems were the most frequently affected SDQ domain in the present study. Difficulties in developing and maintaining interpersonal relationships among institutionalized children have also been reported by Kaur et al., who observed peer relationship problems and conduct disorders as predominant psychosocial concerns.[7] The higher prevalence of peer difficulties may

Table 3: Association between psychosocial health status and general characteristics of children at orphanage homes

General characteristics	*Total (n)*	*Psychosocial difficulties present* n (%)*	*Psychosocial difficulties absent* n (%)*	*p-value*
Gender				
Male	50	47 (94.0)	3 (6.0)	0.018
Female	64	50 (78.1)	14 (21.9)	
Age (years)				
11–13	42	36 (85.7)	6 (14.3)	0.89
14–16	50	43 (86.0)	7 (14.0)	
17–18	22	18 (81.8)	4 (18.2)	
Education				
Primary school	50	43 (86.0)	7 (14.0)	0.79
Middle school	17	14 (82.4)	3 (17.6)	
High school	27	22 (81.5)	5 (18.5)	
Intermediate	10	8 (80.0)	2 (20.0)	
Age at admission in orphanage (years)				
<5	32	28 (87.5)	4 (12.5)	0.78
5–10	45	37 (82.2)	8 (17.8)	
>10	37	32 (86.5)	5 (13.5)	
Years of stay in the orphanage				
<1	24	20 (83.3)	4 (16.7)	0.92
1–3	18	15 (83.3)	3 (16.7)	
>3	72	62 (86.1)	10 (13.9)	

be related to limited opportunities for individualized attention, disrupted family attachments, group-living environments, and challenges in establishing stable social relationships. Differences in institutional practices, caregiver-to-child ratios, and the duration of institutionalization may also contribute to variations observed across studies.

Conduct problems and hyperactivity were also common among the study participants. Comparable findings have been reported by Mahanta et al., who documented a considerable burden of emotional and behavioural problems among orphaned children, particularly during adolescence.[8] Similarly, Alem et al. reported that behavioural and emotional difficulties were common among children living in institutional settings.[4] These findings may reflect the influence of multiple psychosocial and environmental factors experienced by children in residential care. However, owing to the cross-sectional design of the present study, no causal relationship between institutional living and psychosocial outcomes can be inferred.

A statistically significant association was observed between gender and psychosocial difficulties, with male children demonstrating a higher proportion of psychosocial problems than female children. Similar gender differences have been reported in previous studies, although findings have not been entirely consistent across different settings.[7,8] Variations in behavioural expression, coping mechanisms, institutional environments, and socio-cultural factors may partly explain these differences and warrant further investigation through longitudinal research.

Despite the high prevalence of psychosocial difficulties, most children in the present study demonstrated normal prosocial behaviour. Similar findings have been described in studies highlighting the positive influence of supportive caregiving practices and structured institutional environments on the development of helping behaviours, cooperation, and empathy.[6,9] Preserved prosocial behaviour may represent an important strength that can be utilized while planning psychosocial interventions and life-skills programmes for children residing in orphanage homes.

The impact assessment revealed that psychosocial difficulties most commonly affected classroom learning, followed by peer relationships. Similar observations have been reported by Kyaruzi et al., who found that psychosocial difficulties among orphaned children were associated with poorer educational and social functioning.[10] These findings highlight the importance of integrating psychosocial support with educational services to improve both mental well-being and academic performance among institutionalized children.

The findings of the present study have important public health implications. Routine psychosocial screening using validated instruments such as the Strengths and Difficulties Questionnaire (SDQ), periodic psychological assessment, counselling services, caregiver training, and life-skills education may facilitate the early identification and management of emotional and behavioural problems among children residing in orphanage homes. Strengthening the mental health component of institutional child-care services through existing national initiatives such as Mission Vatsalya could further enhance psychosocial support for this vulnerable population.[11]

Strengths

A major strength of this study is that psychosocial health was assessed as part of a comprehensive evaluation of children residing in orphanage homes, allowing a holistic understanding of their overall well-being. The study employed a community-based design and included children from multiple government and private orphanage homes selected through multistage random sampling, which enhanced the representativeness of the sample. Psychosocial status was assessed using the standardized and widely validated Strengths and Difficulties Questionnaire (SDQ), enabling objective assessment across emotional symptoms, conduct problems, hyperactivity, peer relationship problems, and prosocial behaviour. The use of a validated tool also facilitated comparison of findings with national and international studies.

Limitations

The findings of the present study should be interpreted in light of certain limitations. The cross-sectional design prevents establishing temporal or causal relationships between participant characteristics and psychosocial outcomes. The study was conducted in selected registered orphanage homes in Lucknow district; therefore, the findings may not be generalizable to all institutionalized children or to other geographic settings. Although multistage random sampling was employed, the inclusion of only eligible registered orphanage homes may have introduced selection bias. Finally, psychosocial health was assessed using the Strengths and Difficulties Questionnaire (SDQ), a validated screening instrument

rather than a diagnostic psychiatric assessment, and the findings were based on self-reported responses, which are subject to reporting and social desirability bias.

Conclusion

The present study demonstrates that psychosocial difficulties are highly prevalent among children living in orphanage homes in Lucknow, with nearly two-thirds of participants having abnormal Total Difficulty Scores on the SDQ. Peer relationship problems were the most prominent concern, followed by conduct problems and hyperactivity, indicating substantial challenges in social adjustment and behavioural regulation. At the same time, the high level of prosocial behaviour observed among most children suggests the presence of resilience and adaptive social strengths. These findings underscore the need for routine psychosocial screening, counselling services, life-skills education, and structured peer-support interventions within orphanage settings.

Funding

Nil.

Conflict of Interest

None.

Ethical Approval

Ethical clearance was obtained from the Institutional Ethical Committee with Ref: 2413/Ethics/2024 dated 16/12/24. Before collecting the data, informed consent and assent were obtained from the participant and the legal guardian. The study was carried out in accordance with the principles as enunciated in the Declaration of Helsinki.

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