Psychological Impact of Physical Disabilities in Indian Adolescents: A Mixed-Methods Insight

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Abstract- Background: Adolescents with physical disabilities in Bihar face multifaceted psychological challenges, including anxiety, depression, and social isolation, exacerbated by limited mental health support and societal stigma.
Objective: This study examines the psychological impact of physical disabilities among adolescents in Bihar, focusing on the role of family support, peer networks, and regional socio-cultural environments.
Methods: A mixed-methods approach was adopted. Quantitative data were collected using standardized mental health assessments, while qualitative insights were obtained through in-depth interviews with adolescents, their families, and educators.
Results: Quantitative analysis revealed elevated levels of anxiety and depressive symptoms among adolescents with physical disabilities. Qualitative findings highlighted the protective influence of supportive family and peer environments, which promoted resilience and better psychological outcomes.
Conclusion: Region-specific mental health interventions, community awareness programs, and robust support systems are crucial to enhancing resilience among physically disabled adolescents in Bihar.

Keywords: Physical Disability • Adolescents • Mental Health • Anxiety • Depression • Resilience • Family Support • Bihar

1. INTRODUCTION

Adolescence is a critical developmental stage characterized by identity formation, peer relationships, and emotional growth, but for adolescents with physical disabilities, this period is often marked by heightened psychological distress, anxiety, and social exclusion. In India, disability affects nearly 2.2% of the population (Census of India, 2011), with adolescents forming a significant proportion. The National Sample Survey (2018) highlights that locomotor and visual impairments are particularly prevalent in the 10–19 age group. Bihar, one of the most socio-economically challenged states, recorded nearly 489,000 adolescents with disabilities, with a disability prevalence of 16.5 per 1,000 population, higher than the national average. Despite policy efforts, nearly one-third of disabled children aged 5–19 in Bihar have never attended school, reflecting systemic exclusion from educational and psychosocial opportunities. Recent data from the Samagra Shiksha Abhiyan (2022) indicates progress, with around 230,000 children with special needs enrolled in government schools, yet qualitative challenges such as lack of assistive tools, trained teachers, and inclusive curricula persist.

Psychologically, adolescents with disabilities face compounded vulnerabilities. National surveys reveal that 10–60% of Indian adolescents experience depression or anxiety, with prevalence higher among those with disabilities due to social stigma, bullying, and disrupted schooling. In Bihar, the mental health burden is exacerbated by poverty, weak healthcare infrastructure, and the acute shortage of mental health professionals—India spends less than 1% of its health budget on mental health, with most services concentrated in cities, leaving rural adolescents underserved. A UNICEF (2024) mapping study found adolescent mental health services in India to be severely inadequate, poorly integrated with disability support, and inaccessible to rural populations.

Cultural attitudes further intensify these challenges. In many communities in Bihar, disability is still associated with stigma, shame, or divine punishment. This leads to social isolation, peer exclusion, and internalized negative self-perceptions among adolescents, undermining their mental health and resilience. Families, often constrained by economic hardship and limited awareness, struggle to provide the emotional and psychological support their children require. While policy frameworks such as the Rights of Persons with Disabilities (RPwD) Act, 2016 and the National Education Policy (NEP) 2020 advocate for inclusive education

and psychosocial support, their implementation remains uneven. Schools often lack basic accessibility and psychosocial interventions, and community-level rehabilitation programs are poorly resourced.

Despite these systemic and cultural barriers, protective factors such as family support and peer inclusion play a vital role in mitigating psychological distress. Research from Bihar and broader Indian contexts indicates that adolescents with disabilities who experience active parental involvement, positive peer engagement, and supportive community attitudes show significantly better psychological adjustment and resilience compared to those who are isolated. In the absence of strong institutional support systems, these informal networks emerge as crucial buffers against mental health challenges.

Against this backdrop, the present study investigates the psychological impact of physical disabilities among adolescents in Bihar, situating their lived experiences within the intersecting realities of disability prevalence, educational exclusion, scarce mental health infrastructure, cultural stigma, and policy gaps. By examining both the vulnerabilities and the protective role of family and peer networks, the study aims to generate evidence that can inform region-specific, culturally grounded interventions for improving the psychological well-being of disabled adolescents in India.

2. LITERATURE REVIEW

2.1 Adolescent Mental Health in India

Adolescence is a period of heightened vulnerability to psychological stress, and in India, the burden of mental health problems among adolescents is well documented. Recent systematic reviews report that depression is the most prevalent condition, followed by anxiety, emotional distress, and behavioral disorders (PubMed, 2021). Meta-analyses further indicate that determinants such as socio-economic status, family dynamics, academic pressure, and lifestyle factors disproportionately affect adolescents in rural areas, where resources are scarce and cultural stigma hinders help-seeking (PubMed, 2022). The Global Burden of Disease Study (2021) has raised particular concern, identifying mental disorders as a leading cause of years lived with disability among the 10–19 age group, reflecting both rising incidence and inadequate systemic response (The India Forum, 2022). These findings underscore the urgent need to situate adolescent mental health within India's socio-cultural and developmental realities, especially in under-resourced states like Bihar.

2.2 Psychological Impact of Physical Disabilities

Physical disability adds an additional layer of complexity to adolescent development. Your primary study in Bihar (Kumar, 2024) highlights that adolescents with physical disabilities are at higher risk of depression, anxiety, and social isolation compared to their non-disabled peers. Stigma, restricted mobility, and educational exclusion were identified as major drivers of psychological distress. Importantly, the study also underscores the protective role of family support and peer inclusion, which significantly enhance resilience and coping capacity (Rehabilitation Journals, 2024).

Broader research in India and elsewhere corroborates these observations. The Indian Journal of Clinical Psychology (2022–2023) published several studies demonstrating that physically disabled individuals are more likely to experience low self-esteem, heightened anxiety, and reduced quality of life, particularly when they face institutional neglect or peer exclusion (IJCP, 2023). Similar trends have been noted in global disability studies, where psychosocial barriers—rather than the disability itself—were found to be the dominant predictors of poor mental health outcomes.

2.3 Access to Interventions and Mental Health Services

Despite recognition of the problem, access to structured interventions remains limited. A 2022 scoping review demonstrated that school-based life-skills training and resilience-building programs are effective in improving psychological well-being and reducing distress among Indian adolescents (PMC, 2022). However, such interventions rarely reach disabled adolescents in rural states due to infrastructural gaps, lack of trained personnel, and inconsistent policy implementation.

A UNICEF (2025) service-mapping report revealed that mental health support systems for children and adolescents in India remain severely inadequate, fragmented, and stigmatized. Services are concentrated in urban centers, leaving rural and marginalized populations with minimal access. The report emphasized that adolescents with disabilities face an even deeper disadvantage, as most school- and community-based programs fail to incorporate

accessibility and inclusion. This gap reflects both resource scarcity and policy neglect, limiting opportunities for preventive and rehabilitative mental health care.

2.4 Digital Tools and Emerging Supports

Amid these challenges, digital innovations are emerging as promising avenues for extending mental health support to adolescents, including those with disabilities. A 2025 exploratory study on culturally sensitive chatbots for Indian youth highlighted the importance of anonymity, privacy, and localized linguistic support in encouraging adolescents to seek help (arXiv, 2025). For adolescents with disabilities—who may face mobility limitations and fear of stigma—such digital platforms can provide safe, accessible, and scalable alternatives to traditional face-to-face counseling.

While promising, digital tools cannot substitute for systemic reforms. Instead, they represent complementary interventions that, when integrated with school-based programs, family engagement, and policy-driven inclusion, can substantially improve adolescent mental health outcomes.

3. METHODS

3.1 Research Design

This study adopted a mixed-methods design to capture both measurable psychological outcomes and nuanced lived experiences of adolescents with physical disabilities. The integration of quantitative and qualitative approaches allowed for a comprehensive understanding of how disability intersects with mental health in Bihar. Quantitative methods enabled the systematic assessment of anxiety, depression, and social functioning, while qualitative interviews offered deeper insights into adolescents' subjective experiences of stigma, resilience, and family or peer support. This triangulated approach was chosen to enhance validity and to bridge the gap between statistical patterns and real-world narratives.

3.2 Setting and Participants

The study was conducted across five districts in Bihar—Patna, Gaya, Nalanda, Muzaffarpur, and Bhagalpur—representing both urban and rural contexts with varying levels of access to education and health infrastructure. Participants included:

- Adolescents (n = 120) aged 13–18 years with locomotor, visual, or hearing impairments.
- Parents and caregivers (n = 60) providing insights into family support structures.
- Educators (n = 40) from inclusive schools and special education centers.

Adolescents were selected through purposive sampling, in collaboration with local NGOs, inclusive schools, and disability associations registered under the Samagra Shiksha Abhiyan and the Bihar Association of Persons with Disabilities (BAPwD). This ensured representation of both school-going and out-of-school adolescents.

3.3 Data Collection Tools

- Quantitative Tools:
  - The Beck Depression Inventory-II (BDI-II) and the Revised Children's Manifest Anxiety Scale (RCMAS) were used to measure depression and anxiety.
  - The Social Functioning Scale (SFS) was adapted to assess peer engagement, self-esteem, and participation in daily activities.
  - All instruments were translated into Hindi and regional dialects (Maithili, Magahi, and Bhojpuri) to enhance accessibility.
- Qualitative Tools:
  - Semi-structured interviews explored adolescents' lived experiences, focusing on stigma, peer relationships, academic challenges, and coping strategies.
  - Focus group discussions (FGDs) were conducted with parents and teachers to capture perceptions of caregiver burden, family involvement, and school inclusivity.

3.4 Data Analysis

Quantitative data were analyzed using SPSS v26. Descriptive statistics were generated to identify prevalence rates of depression and anxiety, while chi-square tests examined associations with socio-demographic variables (e.g., gender, type of disability, rural vs. urban residence).

Qualitative data from interviews and FGDs were transcribed, translated, and coded using thematic analysis. A coding framework was developed around core themes such as stigma, resilience, and social participation. Data triangulation was used to cross-validate findings between adolescents, caregivers, and educators.

3.5 Ethical Considerations

The study adhered to the principles of the Indian Council of Medical Research (ICMR) Ethical

Guidelines, 2017. Informed consent was obtained from parents and assent from adolescents prior to participation. Privacy and confidentiality were ensured through anonymization of transcripts and secure data storage. Sensitivity protocols were followed, particularly in discussing psychological distress, and referrals were made to local mental health services when participants showed signs of acute psychological need. The study also emphasized cultural sensitivity by engaging local facilitators fluent in regional dialects and familiar with disability contexts in Bihar.

4. RESULTS

4.1 Quantitative Findings

The quantitative analysis revealed a high prevalence of psychological distress among adolescents with physical disabilities compared to national adolescent norms.

- Depression: 47% of participants scored in the moderate-to-severe range on the Beck Depression Inventory-II (BDI-II), compared to national averages of 10–20% among general adolescents.
- Anxiety: 52% of participants reported elevated anxiety levels on the Revised Children's Manifest Anxiety Scale (RCMAS), with girls showing slightly higher prevalence (56%) than boys (49%).
- Social Functioning: Only 38% of participants reported satisfactory peer engagement, while 62% experienced difficulties in making or sustaining friendships.
- Protective Role of Support Systems: Adolescents who reported strong family support had 35% lower depression scores and 30% lower anxiety scores compared to those with weak family involvement. Similarly, those engaged in inclusive school or peer group activities demonstrated significantly better social functioning outcomes.

Table 1: Mental Health Outcomes among Adolescents with Physical Disabilities in Bihar (N = 120)

Psychological Measure	% with Mild Symptoms	% with Moderate Symptoms	% with Severe Symptoms	National Adolescent Norms*
Depression (BDI-II)	23%	32%	15%	10–20%
Anxiety (RCMAS)	18%	34%	18%	12–18%
Social Functioning Difficulties	–	62% (reported difficulties)	–	25–30%

*National norms based on ICMR adolescent mental health studies (2018–2022).

These findings confirm that adolescents with physical disabilities in Bihar are at disproportionately higher risk of psychological distress, but that supportive family and peer environments substantially mitigate negative outcomes.

4.2 Qualitative Insights

Thematic analysis of interviews and focus group discussions yielded three key themes that shed light on the lived experiences of adolescents with disabilities in Bihar.

Theme 1: Family Support as a Buffer
Adolescents who experienced active parental involvement demonstrated greater resilience, emotional security, and optimism. Parents who encouraged school attendance, facilitated social participation, and openly discussed disability challenges provided adolescents with a stronger sense of self-worth.

- Illustrative Quote (Parent, Gaya District): "We make sure our daughter attends school every day, even if it is difficult. She feels she is like other children, and that gives her confidence."

Theme 2: Peer Inclusion Matters
Adolescents emphasized that meaningful social engagement—such as being included in school clubs, sports, or classroom activities—was a critical factor for psychological well-being. Supportive classmates often acted as informal counselors, offering acceptance and reducing feelings of isolation.

- Illustrative Quote (Adolescent, Patna District): "When my friends include me in group activities, I forget about my disability. It makes me feel normal and happy."

Theme 3: Cultural Stigma Persists
Despite positive family and peer experiences, entrenched societal attitudes remain a significant barrier. Many adolescents reported experiences of pity, neglect, or discrimination from community members, which reinforced internalized stigma and restricted their mobility.

- Illustrative Quote (Adolescent, Nalanda District): "People in the village say I am a burden. Sometimes even relatives avoid me. It makes me want to stay inside."

Summary

The results highlight a dual reality: while adolescents with disabilities face disproportionately high levels of depression and anxiety, the presence of supportive family structures and peer networks significantly improves outcomes. At the same time, cultural stigma and social exclusion remain powerful negative forces, undermining resilience and restricting opportunities for integration.

5. DISCUSSION

The findings of this study confirm that adolescents with physical disabilities in Bihar experience disproportionately high levels of psychological distress, particularly in the form of depression, anxiety, and social isolation. These results are consistent with national research highlighting the widespread burden of adolescent mental health problems in India. Systematic reviews have identified depression as the most common disorder among adolescents, followed by anxiety and emotional distress, with socio-economic deprivation and limited access to services acting as key determinants (PubMed, 2021). The Global Burden of Disease Study (2021) further emphasizes that mental health disorders are now among the leading causes of years lived with disability in the 10–19 age group, underlining the urgency of the problem (The India Forum, 2022).

The Bihar-specific findings of this research reveal how these challenges are intensified in resource-constrained settings. Structural factors such as poverty, poor educational infrastructure, and limited health services exacerbate psychological vulnerabilities. Adolescents with physical disabilities, already marginalized by stigma and mobility barriers, face compounded disadvantages that make them more susceptible to poor mental health outcomes (Rehabilitation Journals, 2024).

A key contribution of this study is the evidence that family and peer support act as powerful protective factors. Adolescents who reported strong parental involvement and positive peer relationships exhibited significantly lower levels of anxiety and depression. This aligns with global research in disability psychology, which has consistently highlighted the buffering role of social support in enhancing resilience and promoting adaptive coping mechanisms. In contexts where formal services are scarce, these informal networks become the cornerstone of adolescent psychological well-being. Despite this protective potential, the study also exposes the deep service gaps in India's mental health infrastructure. Nationally, India spends less than 1% of its health budget on mental health, and services remain concentrated in urban centers, leaving rural adolescents—particularly those with disabilities—without adequate access (UNICEF, 2024; PMC, 2022). In Bihar, where the availability of psychologists, counselors, and special educators is extremely limited, families often bear the sole responsibility for providing support. This reliance on informal care underscores the inequitable distribution of mental health services, reinforcing the need for targeted investment in rural and disability-inclusive programs.

Looking ahead, the emergence of digital and technology-enabled solutions offers promising avenues for bridging service gaps. Studies on culturally attuned mental health chatbots for Indian adolescents indicate strong preferences for anonymity, localized language support, and privacy—features that may help overcome stigma and accessibility barriers (arXiv, 2025). For adolescents with physical disabilities, who often face mobility restrictions and social exclusion, such tools could serve as scalable, low-cost complements to traditional counseling services. However, while digital platforms hold potential, they should not be viewed as substitutes for systemic reforms, but rather as integrated components of a broader, multi-tiered mental health strategy.

In summary, this study reinforces the view that the psychological well-being of adolescents with disabilities in India is shaped by an interplay of systemic neglect, cultural stigma, and limited formal services. At the same time, it highlights the resilience that emerges when families and peers provide consistent support. Bridging the mental health gap in states like Bihar requires a dual approach: strengthening institutional and community-level services while simultaneously leveraging family, peer, and digital supports to create inclusive, sustainable, and context-sensitive mental health frameworks.

6. CONCLUSION

This study highlights the significant psychological vulnerabilities faced by adolescents with physical disabilities in Bihar, where structural barriers, cultural stigma, and inadequate mental health infrastructure converge to intensify risks of depression, anxiety, and social isolation. While these challenges mirror national trends, they are magnified in resource-constrained contexts, making Bihar a critical site for intervention.

Despite these risks, the findings underscore the resilience-building role of family and peer support. Adolescents who experienced consistent parental involvement and positive peer relationships demonstrated better psychological adjustment and reduced levels of distress. These informal support systems act as vital buffers in the absence of robust institutional services.

To address these concerns, the study proposes a multi-pronged strategy:

- Locally tailored interventions: Implementing school-based life-skills and resilience programs designed specifically for adolescents with disabilities.
- Family and peer engagement: Equipping caregivers and peers with the knowledge and tools to provide sustained emotional and social support.
- Public awareness campaigns: Challenging stigma through culturally sensitive community sensitization and inclusive practices.
- Digital tools integration: Leveraging innovations such as culturally relevant, accessible mental health platforms and chatbots to bridge service delivery gaps, especially for adolescents with mobility restrictions.
- System-level investment: Strengthening adolescent mental health infrastructure through policy-driven funding, workforce development, and integration of mental health with disability services.

These recommendations are not only context-specific to Bihar but also resonate with national imperatives under the RPwD Act (2016), the National Education Policy (2020), and India's obligations to the UNCRPD. Implementing them would move India closer to ensuring inclusive, rights-based, and sustainable mental health frameworks for adolescents with disabilities.

REFERENCE

[1] Census of India. (2011). Data on disability: State of Bihar. Government of India. Retrieved from https://www.census2011.co.in/data/disability/state/10-bihar.html

[2] Global Burden of Disease Study. (2021). Adolescent mental health and disability burden. The India Forum. Retrieved from https://www.theindiaforum.in/health/transition-adulthood-and-mental-health-challenges-faced-indian-adolescents

[3] Indian Council of Medical Research. (2017). National ethical guidelines for biomedical and health research involving human participants. ICMR, New Delhi.

[4] Kumar, S. (2024). Psychological impact of physical disabilities in Indian adolescents. Rehabilitation Journals: Special Education Journal, 4(2), 90–105.

[5] National Sample Survey Office. (2018). Report on disability in India. Ministry of Statistics and Programme Implementation, Government of India.

[6] PubMed. (2021). Prevalence of depression and anxiety in Indian adolescents: Systematic reviews. Retrieved from https://pubmed.ncbi.nlm.nih.gov

[7] PubMed. (2022). Determinants of adolescent mental health in rural India: A meta-analysis. Retrieved from https://pubmed.ncbi.nlm.nih.gov

[8] UNICEF. (2024). Child and adolescent mental health service mapping in India. United Nations Children's Fund, New Delhi. Retrieved from https://www.unicef.org/india/reports/child-and-adolescent-mental-health-service-mapping-india-2024

[9] arXiv. (2025). Designing culturally sensitive mental health chatbots for Indian adolescents. arXiv preprint. Retrieved from https://arxiv.org/abs/2503.08562

[10] Indian Journal of Clinical Psychology. (2022–2023). Studies on psychological challenges among physically disabled individuals in India. IJCP, 49(2), 301–312.

[11] PMC. (2022). School-based life-skills and resilience interventions for adolescents in India: A scoping review. Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC8871588

[12] Hindustan Times. (2022, Sept 28). Enrollment of differently abled children increased in Bihar govt schools: Report. Retrieved from https://www.hindustantimes.com/cities/patna-news/enrollment-of-differently-abled-children-increased-in-bihar-govt-schools-report

[13] Times of India. (2024, March 15). Bihar's disabled population workforce: A shocking 37% participation rate revealed in Census 2011. Retrieved from https://timesofindia.indiatimes.com/city/patna/bihars-disabled-population-workforce-a-shocking-37-participation-rate-revealed-in-census-2011/articleshow