

PREVALENCE OF STRESS, ANXIETY AND DEPRESSION AMONG PHYSICALLY DISABLED CHILDREN AT SPECIAL SCHOOL IN LAHORE

Original Research

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ABSTRACT

Background: Physical disability involves the reduction or loss of motor functions to varying degrees, often due to damage to body structures or functions. These impairments pose significant challenges in daily activities and social participation.

Objective: The study aims to assess the prevalence of stress, anxiety, and depression among physically disabled school-going children in Lahore.

Methods: This cross-sectional study sampled 120 children using non-probability purposive sampling over six months. Demographic data such as age and gender were collected initially. Mental health status was evaluated using the DASS-21 Questionnaire. Data were analyzed using SPSS to determine the prevalence of stress, anxiety, and depression.

Results: The participants' mean age was 13.67 years (SD = 2.54). The gender distribution was 57.5% male (n=69) and 42.5% female (n=51). The prevalence of depression was reported as follows: no depression in 9.2% (n=11), mild depression in 18.3% (n=22), moderate depression in 41.7% (n=50), severe depression in 28.3% (n=34), and very severe depression in 2.5% (n=3). Anxiety levels were reported as mild in 4.2% (n=5), moderate in 31.7% (n=38), severe in 32.5% (n=39), and very severe in 31.7% (n=38). Stress levels were reported as mild in 5.0% (n=6), moderate in 30.7% (n=36), severe in 47.5% (n=57), and very severe in 17.5% (n=21).

Conclusion: The study confirms a significant prevalence of stress, anxiety, and depression among physically disabled children, highlighting the need for specialized mental health interventions in this group.

Keywords: Anxiety, Cerebral Palsy, Depression, Disabilities, Physical, Stress, Stress Disorders

INTRODUCTION

Physical disability encompasses a spectrum of motor function impairments, from partial limitations in movement to complete paralysis, often resulting from congenital anomalies, body deformities, or injuries affecting body parts' structure or function. The societal constructs and barriers encircling individuals with physical disabilities hinder their ability to fulfill standard social roles, consequently diminishing their overall quality of life. This reduction in social engagement not only contravenes basic human rights but also impacts their mental and physical well-being (1)(2). In light of the increasing global prevalence of affective disorders, it is imperative to recognize that anxiety and stress often accompany depressive states, particularly in the pediatric demographic. Research indicates that approximately three-quarters of children and adolescents experiencing depression also exhibit anxiety symptoms, with significant life stressors precipitating nearly half of these depressive episodes (3). The psychological ramifications of such stress include low self-esteem and disruptions in sleep and appetite, while the physical consequences might escalate to cardiovascular diseases and chronic fatigue, among others. Maladaptive behaviors like substance abuse and unhealthy eating habits are also prevalent under high stress levels, further exacerbating health risks (4). Despite known interactions between anxiety, depression, and reduced quality of life, there remains ambiguity regarding their concurrent effects. However, studies within Asian populations suggest that higher satisfaction levels and fewer social constraints correlate with better mental health outcomes (1).

This narrative is particularly poignant for physically disabled individuals who face an amplified risk of secondary conditions due to restricted physical activity. Such limitations not only lower life quality but also predispose individuals to chronic pain and further psychological distress (1). Given the significant correlations between physical disability and depression across various demographics, this population is demonstrably more prone to experiencing heightened pain, depression, and anxiety, thus reporting a markedly lower quality of life compared to their non-disabled counterparts (6). Acknowledging these factors, the objective of this study is to elucidate the prevalence and interplay of stress, anxiety, and depression among physically disabled children in special schools in Lahore, aiming to advocate for early detection and comprehensive management strategies. By understanding these dynamics, interventions can be better tailored to mitigate the adverse impacts on this vulnerable population, thereby enhancing their overall mental health and quality of life.

METHODS

Following approval from the institutional ethical committee, a study cohort was established comprising 120 children who met the predefined inclusion and exclusion criteria. Prior to their participation, guardians provided written informed consent, which was essential not only for participation but also for the use of the children's data for research purposes. The confidentiality of personal information for all participants was stringently upheld throughout the study process. The initial phase involved gathering basic demographic data from each participant, including names, ages, and genders, which was essential for subsequent analysis. The core of the study then focused on the assessment of stress, anxiety, and depression levels among the children. This assessment was conducted using the Depression Anxiety Stress Scales (DASS-21), a standardized tool well-recognized for its efficacy in measuring these psychological states.

RESULTS

In this study, 120 children with physical disabilities, aged between 9 and 18 years, were assessed for stress, anxiety, and depression using the DASS-21 questionnaire. The participants included 69 males (57.5%) and 51 females (42.5%), reflecting a diverse demographic. The mean age of the children was calculated to be 13.67 years, with a standard deviation of 2.54, indicating a broad age range within the cohort. The assessment revealed varying levels of depression among the children: 11 children (9.2%) reported no depression, 22 (18.3%) mild depression, 50 (41.7%) moderate depression, 34 (28.3%) severe depression, and 3 (2.5%) very severe depression. Anxiety levels also varied, with 5 participants (4.2%) experiencing mild anxiety, 38 (31.7%) moderate anxiety, 39 (32.5%) severe anxiety, and another 38 (31.7%) reporting very severe anxiety levels. Similarly, the stress assessment showed that 6 children (5.0%) had mild stress, 36 (30.7%) moderate stress, 57 (47.5%) severe stress, and 21 (17.5%) very severe stress.

Table: Age of children

Mean of Age in CP children			
N	Minimum	Maximum	Mean±S.D
120	9.0	18.0	13.675±2.544

The graphical analysis of age distribution displayed a normal spread across the studied age range, underscoring the diverse age representation within the sample. Gender distribution was also graphically represented, showing a slightly higher proportion of male participants compared to females. These results highlight the significant mental health challenges faced by physically disabled children, with a high prevalence of moderate to severe levels of depression, anxiety, and stress. The data underscore the need for targeted mental health interventions in this vulnerable population to mitigate these challenges and enhance their overall quality of life.

Table: Demographic and Mental Health Characteristics of Study Participants

Characteristic	Frequency (Percentage)
Gender	
Male	69 (57.5%)
Female	51 (42.5%)
Depression Range	
0-9	11 (9.2%)
10-13	22 (18.3%)
14-20	50 (41.7%)
21-27	34 (28.3%)
28+	3 (2.5%)
Anxiety Range	
8-9	5 (4.2%)
10-14	38 (31.7%)
15-19	39 (32.5%)
20+	38 (31.7%)
Stress Range	
15-18	6 (5.0%)
19-25	36 (30.7%)
26-33	57 (47.5%)
34+	21 (17.5%)

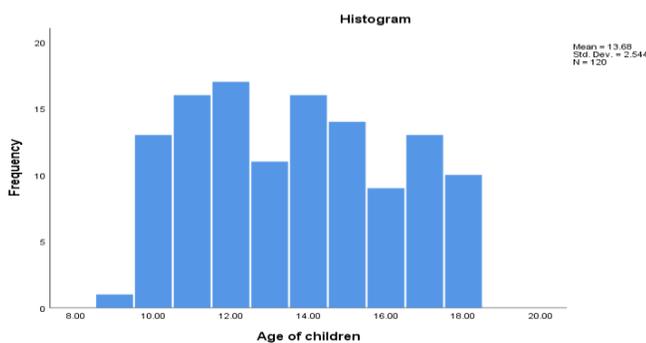


Figure 1: Age of children

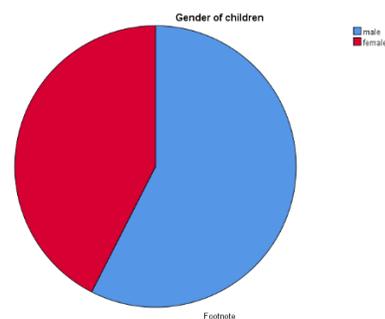


Figure 2: Gender of children

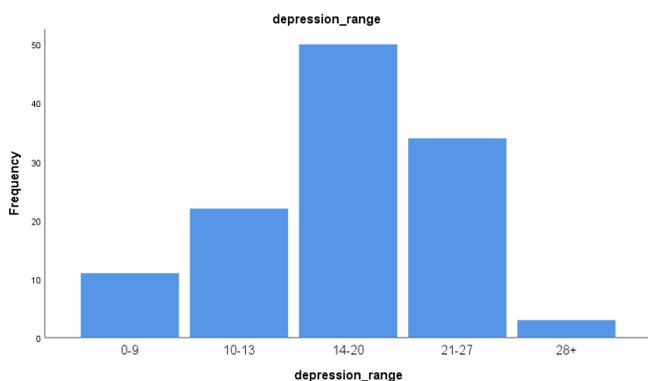


Figure 3: Depression Range

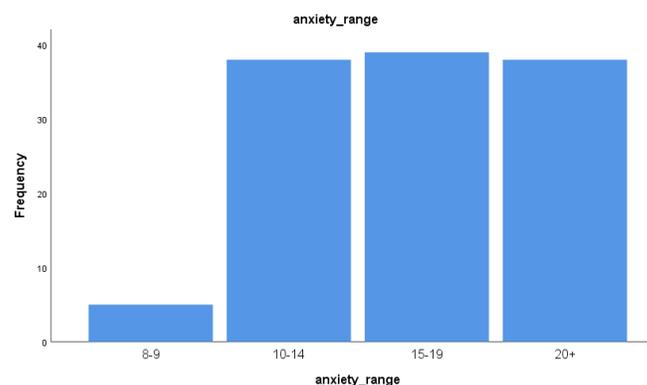


Figure 4 : Anxiety Range

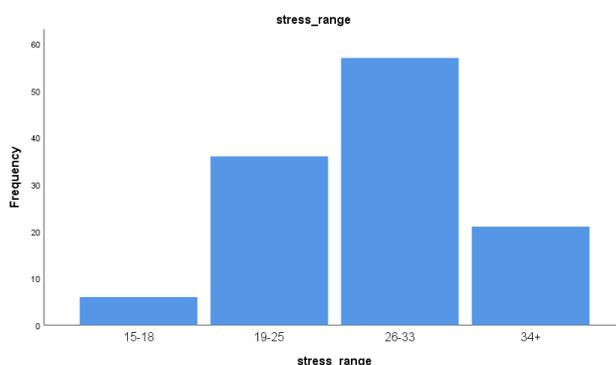


Figure 5: Stress Range

DISCUSSION

This study included 120 children with a mean age of 13.67 ± 2.54 , reflecting a gender distribution of 57.5% male and 42.5% female. This demographic makeup offers a unique lens through which the impact of physical disabilities on mental health in children can be analyzed. The findings reveal that a significant proportion of participants experienced varying degrees of stress, anxiety, and depression, aligning with previous studies that reported similar mental health challenges within disabled populations (9)(10). Notably, 41.7% of participants exhibited moderate depression, and 2.5% experienced very severe depression. These figures are especially concerning when compared to broader demographic studies, highlighting the enhanced vulnerability of physically disabled children. Furthermore, our data indicated a substantial presence of anxiety, with 31.7% of children experiencing moderate to very severe levels, emphasizing the unique psychological burdens faced by this group.

In comparing these results with existing literature, the prevalence of severe stress among the participants stands out. With 47.5% reporting severe stress, the findings starkly contrast with studies in other groups, such as medical students, where the stress prevalence was reported at 54%. This comparison underscores the specific challenges inherent to physically disabled children (11). The research aligns with broader trends in mental health research that suggest demographic variables significantly influence psychological outcomes. While previous studies, such as those by Aslan et al. (2022), have explored these factors in broader populations, the current study specifically highlights how physical disabilities can amplify stress, anxiety, and depression (13).

The strength of this study lies in its focused examination of a specific, often under-represented population, providing valuable insights into the mental health impacts of physical disabilities in children. However, limitations include the lack of a control group of non-disabled children, which would allow for more direct comparisons of mental health impacts. Additionally, the study's reliance on self-reported measures could introduce response biases, potentially influencing the accuracy of the reported mental health states. Further research could benefit from integrating mixed-method approaches to gain deeper insights into the lived experiences of these children, thereby enhancing understanding and informing targeted interventions. Such studies could also explore the effects of various

interventions to mitigate the mental health challenges faced by physically disabled children, contributing to a more nuanced understanding of their needs and the strategies that can support their mental health and overall well-being.

CONCLUSION

This cross-sectional study has highlighted a significant prevalence of mental health challenges among physically disabled school-going children, with a substantial number of participants experiencing moderate depression and severe stress and anxiety. These findings underscore the urgent need for targeted interventions and support systems tailored specifically to the needs of this vulnerable group. By addressing these mental health issues proactively, we can enhance the well-being and quality of life of physically disabled children, providing them with a more supportive and accommodating educational environment.

AUTHOR CONTRIBUTIONS

Author	Contribution
Fiza	Conceptualization, Methodology, Formal Analysis, Writing - Original Draft, Validation, Supervision
Rabia Nishat	Methodology, Investigation, Data Curation, Writing - Review & Editing
Fatima Shafaqat	Investigation, Data Curation, Formal Analysis, Software
Kiran Haq	Software, Validation, Writing - Original Draft
Izzah Bukhtawar	Formal Analysis, Writing - Review & Editing
Areej Aslam	Writing - Review & Editing, Assistance with Data Curation
Fatima	Formal Analysis, Writing - Review & Editing
Samya Ghazanfar	Writing - Review & Editing, Assistance with Data Curation

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