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Emotional and Behavioral Consequences in Physically Disabled Children from Flood-Affected Regions of Khyber Pakhtunkhwa

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Abstract

Physically disabled children are facing problems in their life however emotional and behavioral problems are found more prominent. The aim of the current study is to compare the emotional and behavioral problems in normal and physically disabled children and adolescents in flood affected area of Khyber Pakhtunkhwa Pakistan. Quantitative and comparative research design was used in this study. The sample consisted of 150 students of age's 4-16 years with mean age of 12.1 years (SD=4.9) were engaged by using purposive sampling technique. Demographic Form and Strengths and Difficulties Questionnaire were used in the study. Sample was drawn from special schools of D. I. Khan and Tank, districts. Result of the study indicated that children with physical disabilities shows high emotional and behavior problem than the normal population (t= 8.22, p< .01). Results further revealed that children with physical disabilities are comparatively more hyperactive and display comparatively more peer problem than the normal population (t=6.16, p< .01). On the basis of findings, it could be concluded that as compared to normal children's, children's with physical disabilities are more vulnerable to emotional and behavior problems.

Keywords: Emotional Problems, Behavior problems, Physical disabilities

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Introduction

Physical disabilities are the conditions where an individual has the physical limitation to move or perform some activities. Children with such condition have diminished abilities not only physical but also in educational, social and communicational development. Physically disabled children having upper and lower limb impairments are reported on high risk. They are experiencing cognitive, emotional and social developmental issues. The issues are further worsened when disaster affects them, and their access to medical, rehabilitation and social services has become limited (WHO, 2021). Etiology of physical disabilities is complex containing congenital issues, injuries and infectious diseases sustained during disaster (Iqbal & Chaudhry, 2019). Injuries leading to upper and lower limb disabilities are frequently reported from flood affected areas of Khyber Pakhtunkhwa. These injuries are due to fractures, crushes and amputations occurred due to collapse structure and debris. The conditions further worsen when the patients are from remote areas with limited shifting or emergency medical care (Khan & Ahmad, 2021). Early interventions and patient shifting services are very necessary as delay in such services lead to delayed motor development, social withdrawal, and a reduced quality of life (UNICEF, 2022). Individuals with physical disabilities are psychologically and mentally vulnerable and prone to different consequences including anxiety, stress, depression, stigmatization, social isolation and reduced opportunities to get education (Singh & Ghosh, 2020).

Researchers reported that those students who are lacking access to rehabilitation care services often experience emotional and behavioral problems like anxiety and depression, due to feelings of isolation and dependence (Afzal & Yousafzai, 2017). The developed countries have well established rehabilitation services for flood or other disaster survivors and they have special care institutions for special population, which prepare individuals with disabilities to live normal life (Centers for Disease Control and Prevention, 2021). On the other hand, in countries like Pakistan we have very limited facilities and services to deal the conditions effectively. We don't' have any structured programs specifically designed for those with physical issues. We are spending years to rehabilitate and recover post-disaster. We can strengthen these services by making availability of emergency health care, psychosocial support services and rehabilitation services freely and immediately to enhance life of those effected by disaster (Ahmed & Malik, 2020).

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Physically disable children have become more vulnerable when flood effected their territory. The challenges faced by individuals with disability are further magnified by a combination of external and internal problems (UNICEF, 2022). The individuals with physical disabilities are confronted with both external and external issues. The external issues are like displacement from home town, loss of home and lack of access to necessary services like emergency health care and social services. Lack of these services and disruption of life routine leads to heightened stress and anxiety level (Panter-Brick et al., 2018). The mentioned circumstances and issues are linked to internal problems including emotional issues comprised of anxiety, depression, and feelings of helplessness (Masten & Narayan, 2012), while the behavioral problems comprised of conduct problems (CP), hyperactivity-inattention difficulties (HA), and peer problems (PP), are also prevalent among children with physical disabilities (Goodman et al., 2000). The above issues are having combination of symptoms like aggression, frustration, social isolation, rejection, inattention, heightened stress, trauma and lacking to build supportive relationships (Rutter et al., 2006; Panter-Brick et al., 2018). Association of these internal and external issues creating a cycle of psychological correlates, leaving these children at a greater risk of long-term mental health issues (Masten & Narayan, 2012). This research aims to investigate all the psychological issues faced by the children with physical disabilities from the flood affected areas of Tank and Dera Ismail Khan (KPK)

Materials and Methods

Study Design

The study uses quantitative and comparative study design involving two groups: experimental (physically disabled subjects) and control (normal children). Descriptive statistics and independent samples t-tests were computed to analyze differences in behavioral and emotional measures.

Sampling Method

Purposive sampling technique was used.

Study Population

Sample of the study comprised of 150 students including 75 students from normal educational system and 75 students from special education system of government and private institutions of Tank and D. I. Khan districts. The age range of the participants was ranged between 4 years- 16 years with mean age of 12.12 (SD=4.995). The sample was drawn from all socioeconomic status including lower middle and upper.

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Instruments

Demographic Information Form

Demographic form consisted of basic information regarding age, birth order, education, family structure socioeconomic status of the subjects.

Strength and Difficulty Questionnaire (SDQ)

The SDQ is a brief screening questionnaire for behavioral and emotional problems designed for a child aged 4-16 years. It comprised of twenty-five items divided into five subscales (five items in each) are measuring emotional problems (EP), conduct problems (CP), hyperactivity-inattention problems (HA), peer problems (PP) and Prosocial behavior (PB). A total difficulties score is computed by combining the first four sub-scales scores. Each item is scored on a three-point scale; (0=not true, 1=somewhat true, and 2=certainly true). On the first four scales a high score indicates problems, while a low score indicates problems on the last subscale (Prosocial). The subscale scores are ranging from 0 to 10 and the total difficulty score is ranging from 0 to 40.

Data Analysis

Data was analyzed through Statistical Package for Social Sciences (SPSS, v. 22) by using means, percentage, and independent sample t-test with CI: 95% and p-value less than 0.05.

Ethical approval

The researcher obtained the list of special and normal schools and selected institutions on the basis of randomization procedure. After selecting and getting permissions from authorities of these schools, a researcher approached class teachers of targeted sample. An initial explanation concerning the research and instruction on how to answer the instrument were presented to the subjects. After completion of the demographic information form, the strength and difficulty questionnaire (SDQ) was administered to the sample. They were also given assurance about confidentiality of individual data. After the completion of a questionnaire, teachers and school administration were thanked for their cooperation.

Results

All the required analysis were performed through SPSS Version 22. The analysis includes descriptives and demographics of the participants. T-test was done to check correlation of the variables.

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Table 1: Descriptive Statistics for Entire Sample of the Study

	Range					
Demographics	Min	Max	*M*	*SD*	Skewness	Kurtosis
Gender	1	2	1.33	.473	.714	-1.510
Age	4	16	12.12	4.995	.027	-1.168
Disability	1	1	1.00	.000	-.108	-2.015
Groups	1	2	1.50	.502	-.000	-2.027

M= mean, SD= standard Deviation, Min= minimum, Max= maximum

The study included 150 participants (75 normal while 75 physically disable), with ages ranging from 4 to 16 years (Mean = 12.12, SD = 4.99). Gender was coded as 1 and 2 (Mean = 1.33, SD = 0.47), with all participants sharing the same disability status (coded as 1, physically disable). Participants were divided into two groups (Mean = 1.50, SD = 0.50).

Table= 2 Mean, Standard Deviation and t-score of physically disabled subjects on the scale of strength and weakness scale

	experimental (n = 75)		control (n = 75)				95 % CI	
Measures	*M*	*SD*	*M*	*SD*	*T*	*P*	Lower	Upper
Total	24.19	6.513	11.52	11.64	8.225	.000	9.617	15.717
Ext.Pro	8.25	3.508	7.32	3.457	1.751	0.113	-0.120	1.987
Inter.Pro	8.39	1.82	8.48	2.075	-0.293	0.356	-0.722	0.536

M=mean, SD= Standard Deviation, Ext. Pro= External Problem Behavioral Problems, Inter.Pro= Internal Problem Emotional Problems.

Table 2 is consists of the mean scores, standard deviations, and t-scores for physically disabled participants on a strength and weakness scale between experimental (n = 75) and control (n = 75) groups. The experimental group had a significantly higher total score (M = 24.19, SD = 6.51) than the control group (M = 11.52, SD = 11.64), with t = 8.22 ($p < 0.001$) and a 95% confidence interval of 9.61 to 15.71. In external problem behaviors, the experimental group (M = 8.25, SD = 3.50) scored slightly higher than the control group (M = 7.32, SD = 3.45), but the difference was not significant (t = 1.751, p = 0.11). Similarly, for internal problem behaviors, the control group (M = 8.48, SD = 2.07) had a marginally higher mean than the experimental group (M = 8.39, SD = 1.82), with no significant difference (t = -0.29, p = 0.35). Overall, the experimental group showed significantly higher total scores, but no meaningful differences were found in external or internal problem behaviors.

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Table: 3 Mean, Standard Deviation and t-score of normal and physically disabled children on the subscales of strength and difficulty scale (SDQ)

	Experimental (n= 75)		Control (n = 75)				95 % CI	
Measure	*M*	*SD*	*M*	*SD*	*T*	*p*	Lower	Upper
Total	24.19	6.513	11.52	11.64	8.225	.000	9.617	15.717
EP	4.73	1.671	1.97	2.060	9.012	.037	2.155	3.365
CP	4.77	1.997	1.97	2.060	8.452	.450	2.145	3.455
HA	4.80	1.755	2.56	2.611	6.166	.000	1.521	2.959
PP	4.87	1.727	2.56	2.611	6.381	.000	1.591	3.022

EP= Emotional Problems, CP= Conduct Problems, HA= hyperactivity-inattention problems, PP= Peer Problems.

Table 3 presents mean scores, standard deviations, and t-scores for normal (control) and physically disabled (experimental) children on the Strength and Difficulty Questionnaire (SDQ) subscales. The experimental group (n = 75) had a significantly higher total score (M = 24.19, SD = 6.51) than the control group (M = 11.52, SD = 11.64), with t = 8.22 (p = .000) and a 95% confidence interval of 9.61 to 15.71. Emotional Problems (EP) were notably higher in the experimental group (M = 4.73, SD = 1.67) than the control (M = 1.97, SD = 2.06), with t = 9.01 (p = .037). Hyperactivity-Inattention (HA) and Peer Problems (PP) also showed significant differences, with the experimental group scoring higher (HA: M = 4.80, SD = 1.75; PP: M = 4.87, SD = 1.72) than the control (HA: M = 2.56, SD = 2.61; PP: M = 2.56, SD = 2.61), supported by t-scores of 6.16 and 6.38 (p = .000). Conduct Problems (CP) were higher in the experimental group but showed less significance (t = 8.45, p = .45). Overall, physically disabled children exhibited greater difficulties across all SDQ subscales, particularly in emotional, hyperactivity-inattention, and peer-related issues.

Discussion

Findings of this current research contribute to the significance of psychological well-being of children, particularly those with physical disabilities. Significant variances were noted between the experimental and control groups in terms of total scores on the Strength and Weakness Scale, which suggest that the targeted interventions can have a meaningful impact on the overall psychological functioning of children with disabilities. Results of the current research were found aligns with the existing literature emphasizing the importance of personalized support systems for children facing physical challenges (Bennet et al.,

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2015). Lack of significant differences in external and internal problem behaviors is questionable regarding the specificity of the intervention. However, it is possible that the intervention was more effective in addressing broader psychological constructs rather than specific behavioral or emotional issues. This finding echoes previous studies that have highlighted the complexity of addressing multifaceted psychological challenges in children with disabilities (Lal et al, 2022).

Further the research emphasizes on some other challenges faced by children with physical disabilities, particularly in areas such as hyperactivity-inattention and peer problems. These findings are consistent with research indicating that children with disabilities often experience greater difficulties in social interactions and emotional regulation compared to their peers without disabilities (Mohammad-Aminzadeh et al., 2019). The higher scores in these domains among the experimental group suggest that while interventions may improve certain aspects of psychological well-being, they may not fully mitigate the social and emotional challenges associated with physical disabilities (Mohammad-Aminzadeh et al, 2019). This underscores the need for interventions that are not only psychologically informed but also socially inclusive, addressing both individual and environmental factors that contribute to these difficulties. Relatively young age range of the sample (M = 12.12 years) highlights the importance of early intervention in addressing psychological and social challenges (Colizzi, Lasalvia & Ruggeri, 2020). Early adolescence is a critical period for psychological development, and interventions during this time can have long-lasting effects (Peacock-Chambers, Ivy & Bair-Merritt, 2017). Overall, the study highlights the potential of targeted interventions to improve the psychological well-being of children with physical disabilities, while also revealing areas where further refinement is needed.

Conclusion

Disability in any form is associated with a number of emotional and behavior problem for children itself and also leads to distress and challenging life for the surrounding people especially family. The study investigated the emotional and behavior problems by comparing it with normal children in order to find out the differences in their emotional expression and maladaptive behavior patterns. Emotional and behavior problems were found comparatively more prevalent in physically disabled children than the normal population. Furthermore, physically disabled children have peer problems and other behavior problems accompanied

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by hyperactivity and impulsivity which results in social isolation and criticism from social environment.

Suggesstion For Future Researchers

For future researcher it is highly recommended that they should also consider the management and intervention in their studies in order to know about their effectiveness in such problem. This will help special institution in developing organized and friendly environment where disable children could get benefits from their abilities and utilize their potentials. Future interventions should adopt a more holistic approach, addressing not only psychological constructs but also social and environmental factors that contribute to the challenges faced by these children.

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Conflicts of Interest

The authors declare no conflict of interest.

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