



Self-Concept and stress among adolescents with orthopaedic disabilities: An empirical study

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Abstract

This empirical study aimed to investigate the relationship between self-concept and stress among orthopedically differently abled adolescents. A sample of 30 participants, aged between 13 and 18, was conveniently selected from schools, rehabilitation centers, and support groups. The participants completed structured questionnaires assessing self-concept and stress levels. The data were analyzed using correlation analysis. The results revealed a significant negative correlation between self-concept and stress ($r = -.481$, $p = 0.007$), indicating that higher levels of self-concept were associated with lower levels of stress. These findings emphasize the importance of addressing self-concept in interventions and support systems to promote the psychological well-being of orthopedically differently abled adolescents. Further research with larger samples and longitudinal designs is recommended to validate and expand upon these results. Understanding the relationship between self-concept and stress can inform the development of targeted interventions aimed at enhancing self-concept and reducing stress in this specific population.

Keywords: Self-concept, stress, orthopaedic disabilities, adolescents

Introduction

A crucial stage of development marked by notable physical, psychological, and social changes is the transition into adolescence (Lerner & Steinberg, 2009) ^[3]. This period of transition may offer particular difficulties and barriers for people with orthopaedic impairments, which may have an effect on their general wellbeing and capacity for psychological adjustment. Adolescents with orthopaedic impairments often experience physical limits, social hurdles, and increased self-consciousness due to their disability, which may have a significant impact on their self-concept and capacity to handle stress (Jans *et al.*, 2012; Whitney *et al.*, 2018) ^[2, 8].

Self-concept, which is a person's perspective of themselves in different contexts, is crucial for determining identity development and general psychological health throughout adolescence (Harter, 1999). However, the creation and growth of self-concept in this group may be greatly impacted by orthopaedic disability. A disability may result in poor self-perceptions, inadequacies, and worries about competence and social acceptability (Shavelson *et al.*, 1976) ^[5]. Therefore, developing a confident and unified sense of self may present unique obstacles for adolescents with orthopaedic disabilities.

Stress is yet another critical factor impacting the wellbeing of teenagers with orthopaedic disabilities, in addition to self-concept. Due to scholastic demands, societal changes, and identity discovery, adolescence is already a period of elevated stress. Orthopaedic impairments, however, might add other pressures such as physical restrictions, accessibility problems, and unfavourable views from others (Tervo *et al.*, 2002) ^[6]. Adolescents with orthopaedic disabilities may feel more overall stress as a result of the cumulative impact of various stressors, which may also have an adverse effect on their wellbeing.

Despite the importance of stress and self-concept in the lives of adolescent with orthopaedic disabilities, there is a dearth of empirical research focusing on how they interact. Understanding the relationship between self-concept and stress may help us better understand the special problems that these demographic faces and can also help us design treatments that are specifically designed to improve self-concept and reduce stress. Therefore, the purpose of this empirical research is to investigate how teenagers with orthopaedic disabilities perceive themselves and their stress levels.

This research aims to add to the body of knowledge by examining self-concept and stress in this group and to provide useful recommendations for professionals dealing with adolescents who have orthopaedic disabilities. The results may help in the creation of specialised therapies and support networks that improve self-concept and lessen stress, eventually fostering the resilience and general psychological health of adolescents with orthopaedic disabilities.

Method

Hypothesis

There is no significant relationship between self-concept and stress levels orthopedically disabled adolescents.

Participants

For this study, a convenient sampling method was used to select a sample of 30 orthopedically differently abled adolescents aged between 13 and 18. The participants were recruited from schools, rehabilitation centers, and support groups that catered to adolescents with orthopedic disabilities. Inclusion criteria required participants to have a diagnosed orthopedic disability, possess sufficient cognitive abilities, and provide informed consent. Efforts were made to ensure diversity in terms of disability types and backgrounds. Throughout the study, confidentiality and privacy of the participants were strictly maintained, and all data collected were anonymized. This sample provided valuable insights into the relationship between self-concept and stress among orthopedically differently abled adolescents, informing targeted interventions and support systems.

Tools

Self-concept Questionnaire by Dr Raj k. Saraswat (2019)

The self-concept scale consists of 48 items that assess self-perceptions across six areas: physical, social, temperamental, educational, moral, and intellectual. The scale demonstrates good reliability with a coefficient of 0.88, indicating high consistency of scores. Additionally, it exhibits good validity with a coefficient of 0.80, suggesting that it effectively measures the intended construct. In summary, this comprehensive scale provides reliable and valid measurements of self-concept across multiple domains.

The stress questionnaire Developed by international stress management association UK - 2013 has been applied in the present study

Procedure

In this study, a convenient sampling method was used to select orthopedically differently abled adolescents from schools, rehabilitation centers, and support groups. Informed consent was obtained from participants and their parents or legal guardians. Data were collected through face-to-face interviews using structured questionnaires to assess self-concept and stress levels. Strict confidentiality and anonymity were maintained throughout the study. The collected data were analyzed using appropriate statistical methods to explore the relationship between self-concept and stress. The study followed ethical guidelines and aimed to contribute to the understanding of self-concept and stress in orthopedically differently abled adolescents.

Statistics Tool

The statistical tool used in this study was correlation analysis, specifically Pearson's correlation coefficient. This tool was employed to examine the relationship between self-concept and stress levels among orthopedically differently abled adolescents. It provided quantitative insights into the strength and direction of the association between the variables. The analysis helped determine whether there was a significant correlation between self-concept and stress, providing valuable information on their relationship within the study population.

Result

Table 1

		self-concept	stress
Self-concept	Pearson Correlation	1	-.481**
	Sig. (2-tailed)		.007
	N	30	30
Stress	Pearson Correlation	-.481**	1
	Sig. (2-tailed)	.007	
	N	30	30

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis revealed a significant negative correlation between self-concept and stress among the orthopedically differently abled adolescents ($r = -.481$, $p = 0.007$). The negative correlation suggests that as self-concept scores increase, stress levels tend to decrease, and vice versa. The data analysis was based on a sample size of 30 participants, with equal numbers in both the self-concept and stress variables. The statistical significance was determined at the 0.01 level (2-tailed).

Discussion

The findings of this study revealed a significant negative correlation between self-concept and stress among orthopedically differently abled adolescents. These results are consistent with previous research that has emphasized the importance of self-concept in understanding the well-being and psychological adjustment of individuals with disabilities (Verma *et al.*, 2019; Yunus *et al.*, 2017) [7, 9].

The negative correlation indicates that as self-concept scores increase, stress levels tend to decrease. This suggests that orthopedically differently abled adolescents with higher levels of self-concept may possess better coping mechanisms and resilience, which contribute to lower levels of stress. These findings align with studies

that have highlighted the protective role of self-concept in buffering against stress and promoting adaptive functioning (Bracken *et al.*, 2018; Lysaker *et al.*, 2018)^[1, 4].

The significant relationship observed in this study underscores the importance of addressing self-concept in interventions and support systems for orthopedically differently abled adolescents. Interventions aimed at enhancing self-concept and promoting positive self-perceptions may have a beneficial impact on reducing stress levels in this population. For instance, targeted interventions could focus on building self-confidence, fostering a positive body image, and enhancing social skills, all of which are interconnected with self-concept.

The results of this study contribute to the growing body of literature on the psychological well-being of orthopedically differently abled adolescents. They highlight the need for comprehensive and multidimensional approaches to support their mental health. By recognizing and addressing the role of self-concept, practitioners, educators, and caregivers can design interventions that foster a positive self-perception and reduce stress among orthopedically differently abled adolescents.

It is important to acknowledge some limitations of the study. Firstly, the sample size was relatively small, which may limit the generalizability of the findings. Future research with larger and more diverse samples is recommended to validate the results further. Additionally, the cross-sectional nature of the study design prevents the establishment of causality between self-concept and stress. Longitudinal studies could provide more insight into the dynamic relationship between these variables over time.

In conclusion, the findings of this study highlight the significant negative correlation between self-concept and stress among orthopedically differently abled adolescents. These results emphasize the importance of addressing self-concept in interventions and support systems to promote the psychological well-being of this population. By nurturing positive self-perceptions and providing appropriate support, we can contribute to reducing stress levels and fostering resilience among orthopedically differently abled adolescents.

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