

Exploring the Impact of Positive and Negative Affect on Mental Health among Students with Disabilities

Suneel Kumar¹ Rahul Kumar²

¹*Department of Psychology, Faculty of Social Science, Banaras Hindu University, Varanasi, UP. India, 221005

² Department of Education, Faculty of Education, Banaras Hindu University, UP. India

*Corresponding Author: Suneel Kumar

*Email: skumarpsyche@bhu.ac.in

Abstract

Background This study investigates the intricate relationship between positive and negative affect and its impact on the mental health of students with disabilities. Despite the growing recognition of the importance of mental health among this demographic, limited research has focused on the role of affect in shaping their mental health.

Methods Drawing upon a sample of 105 students with various disabilities, data was collected through self-report measures assessing positive and negative affect as well as mental health outcomes. Utilizing quantitative analysis, t-tests, ANOVA and correlation models were employed to examine the associations between affect and mental health indicators.

Results Preliminary findings suggest that positive affect is significantly correlated with better mental health outcomes, including lower levels of depression and anxiety, while negative affect demonstrates the opposite pattern. Furthermore, certain disability types may moderate these relationships, highlighting the nuanced nature of affect and mental health within this population.

Conclusion These results underscore the importance of considering both positive and negative affect in interventions aimed at promoting mental well-being among students with disabilities. Implications for research and practice are discussed, emphasizing the need for tailored interventions that address the unique affective experiences of this population to enhance their overall mental health and academic success.

Keywords- orthopaedic disability, visual disability, haemophilia, positive and negative affect, mental health, and students.

INTRODUCTION

Disability is a vulnerable condition that includes the inability to perform daily life activities due to the impairment of the body parts (Imms et al., 2016). As they face different kinds of life challenges, they have other life experiences and emotions and they also procrastinate their work owing to disability. This community has experienced many mental health issues such as anxiety, stress, and depression as compared to those without them. The prevalence of disability in India is 2.68 crore people have disabilities, of which 1.5 crore are male and 1.18 crore are female. Males have more people with disabilities than females with disabilities (Statistical Profile, 2023).

Mental health is a condition of psychological wellness that allows people to cope with life's stressors, realize their strengths, study and work effectively, and make a difference in their communities (Barkham et al., 2019). It is a crucial aspect of health and well-being that underlies our individual and communal capacity to make decisions, form connections, and affect the environment where we live. It is also essential for personal, collective, and social advancement.

Positive affect refers to the propensity to experience positive emotions and interact with others positively, even though the challenges of life, and negative affect can be defined as having a more unfavourable experience with the world (Schmukle et al., 2002). People with disabilities face more specific challenges in their lives, therefore they have mental health issues as compared to those without disability. Mental health among students with disabilities can vary significantly based on individual circumstances and support systems that impact their inclusive educational practices, self-esteem, barriers to accessibility, increased stress, anxiety, and feelings of isolation (Kumar et al., 2024).

This study aims to investigate the impact of positive and negative affect on the mental health of students with disabilities and facilitate support systems tailored to the unique needs of students with disabilities, ultimately promoting their holistic development and success in academic and personal spheres including mental health.

The present study hypothesizes that (a) to assess and compare levels of positive and negative affect and mental health in different kinds of disabilities. (b) to assess the association between positive and negative affect and mental health.

Methods

Participants and procedure

The present study was conducted on 105 students who have benchmark disabilities i.e., orthopaedic disability, visual disability, and haemophilia (blood disorder) from Jagadguru Rambhadracharya Divyang State University, Chitrakoot, UP. The demographic characteristics of the sample have been explained in Table 1. Firstly, it has been formulated the objective of the study and a purposive sampling technique has been used to collect the data. Every participant was contacted individually and the purpose of the taking data was explained to them after their consent the selected measures were administered.

Table-1 Demographic Details			
		Participants (N)	Participants (N %)
Age	21-38	105	100
Gender	Male	90	85.71
	Female	15	14.29
Education	Graduation	11	10.47
	Post-graduation	69	65.71
	PhD	25	23.80
Resident	Rural	72	68.57
	Semi-Urban	14	13.33
	Urban	19	18.09
Marital status	Married	20	19.04
	Unmarried	85	80.95
Types of Disability	Orthopaedic Disability	81	77.14
	Visual Disability	18	17.14
	Haemophilia	6	5.71
Severity of disability	Mild	58	55.23
	Moderate	23	21.90
	Severe	24	22.85

Inclusion and Exclusion criteria

The present study participants are aged between 21-38 years and those who were studying for graduation, post-graduation, and PhD research scholar at university. orthopaedic disability, visual disability, and haemophilia (blood disorder) have been included in this study and other types of disability, illiterate, and any kinds of psychiatric conditions have been excluded from the study.

Measures

Positive and Negative Affect Scale (PANAS; Watson et al., 1988)

Positive and Negative Affect Schedule (PANAS) was used to measure PA and NA. Ten of the 20 questions covered both PA and NA were reported via responses on a Likert scale of 1 to 5. These twenty questions included positive and negative affect (Strauss et al., 2016). The mean of the overall scores was used to compute the scores for PA and NA (Watson et al., 1988). The PANAS Cronbach's value in this investigation was 0.79.

General Health Questionnaire (GHQ-12; Kashyap & Singh, 2017)

The original GHQ-12 comprises 12 items to be answered by the participant according to the variance, according to their habitual standard, in the frequency of scenarios or behaviours specified in the particular statement of the items (Table 1). The GHQ-12 has six positive items (response options: "Better than usual," "Same as usual," "Less than usual," "Much less than usual") and six negative ones. Overall Cronbach alpha was found .93 (Kashyap & Singh, 2017).

Data analysis

The SPSS-20 version has been used for the analysis. Mean, SD and t-tests have been used to assess the significant gender difference in mental health and positive and negative affectivity. ANOVA was computed for the difference between the types of disability i.e., orthopaedic disability, visual disability, and haemophilia on mental health and positive and negative affect. Further correlation method was used to assess the association between mental health and positive and negative affectivity of students with various disabilities.

Results

The present study first assesses the group differences based on gender. **Table 1** showed that the mean, SD, and t-test of males and females on GHQ and PANAS. Males showed higher scores on GHQ (male- 27.67 and female- 26.40) which was significant at 0.05 levels. Male students showed higher scores on negative affect as compared to females (male- 24.22; female- 23.66) which were not significant. Male students with disabilities get lower scores on positive affect than female students with disability (Mean- M, 33.05; F, 36.33) which is not significant.

	Gender	N	Mean	t-test	Std. Deviation	P Value
Mental Health	Male	90	27.67	1.04	4.41	0.29
	Female	15	26.40		4.18	
Negative Affect	Male	86	24.22	0.25	7.82	0.79
	Female	15	23.66		7.19	
Positive Affect	Male	86	33.05	-1.58	7.35	0.11
	Female	15	36.33		7.40	

Table 2 showed the mean score of disability type on mental health and positive and negative affectivity. Students with haemophilia reported higher scores (mean 29.83), visual disability (mean 27.44), and orthopaedic disability (mean 27.33) on general health. Students with visual disability reported (mean 34.55), orthopaedic disability (mean 33.45), and haemophilia (mean 28.00) in positive affect. It has also been reported that students with orthopaedic disability (mean 24.17), haemophilia (mean 27.00), and visual disability (mean 23.66) in negative affect.

Types of Disability		Mental Health	Positive affect	Negative Affect
Orthopaedic Disability	Mean	27.33	33.45	24.17
	Std. Deviation	4.11	7.86	7.57
Visual Disability	Mean	27.44	34.55	23.66
	Std. Deviation	3.95	4.98	8.55
Haemophilia	Mean	29.83	28.00	27.00
	Std. Deviation	8.28	7.07	8.48
Total	Mean	27.49	33.54	24.13
	Std. Deviation	4.38	7.41	7.70

Table 3 showed the ANOVA results based on the types of disabilities which have been reported that significant types of disability differences were found in Mental health (p-value .40) and positive affect (p-value .48). Whilst negative affect (p-value .84) was reported as non-significant types of disability differences.

		Sum of Squares	df	Mean Square	F	Sig.
Mental Health	Between Groups	34.97	2	17.48	.90	.40
	Within Groups	1965.27	102	19.26		
Negative Affect	Between Groups	20.47	2	10.24	.17	.84
	Within Groups	5911.58	98	60.32		
Positive Affect	Between Groups	80.50	2	40.25	.72	.48
	Within Groups	5424.54	98	55.35		

Table 4 Pearson correlation showed that Mental health was negatively associated with positive affectivity (r -.028) and significantly positively associated with negative affectivity (r .222*). Positive affect was negatively associated with negative affect (r -.173).

	Mental Health	Positive Affect	Negative Affect
Mental Health	1	-.028	.222*
Positive Affect		1	-.173
Negative Affect			1

Discussion

It has been reported that significant gender difference was found in mental health which means males have higher scores as compared to females. The same result was reported in the previous studies males have higher scores on mental health than females with disabilities (Quaile, 2017; McMillan & Jarvis, 2013; Sniatecki et al., 2019). It can be said that male students with disabilities have fewer mental health issues as compared to female students with disabilities because females have more responsibility compared to males (Shahbazi et al., 2016). It has also been reported that males have higher negative affectivity than females whilst males also reported higher scores on positive affect than females with disabilities. Males can cope with mental adversity more than females, therefore, males with disabilities face more mental adversity but they can bounce back from the adversity mental state (Solís García et al., 2024; Giusti et al., 2021).

Students with haemophilia reported higher scores on mental health issues as compared to other disabilities that were orthopaedic and visual, while visual disability has more mental health issues than orthopaedic disability. Students with an orthopaedic disability have the same intellectual abilities and good adjustment to their environment as normal students but students with haemophilia and visual disabilities were more prone to reported severe personal and mental health issues i.e., depression, anxiety, and stress including maladaptive behaviour because they face more disability-related problems, as haemophilia is a disability with pain that's why they have such severe obstacle in their life (Tough et al., 2017; Chen et al., 2023; Kumar et al., 2024).

Across all five topics, the participants' self-descriptions exhibit the identity-based features of disability. According to Dunn and Burcaw (2013), sharing good experiences with impairments through personal narratives can improve self-awareness, foster a greater feeling of pride and self-worth, and build relationships with the disability community for those with disabilities. These three favourable results are in line with the paradigm (Weitzner et al., 2011) to explain how a person's disability might improve their lives on the levels of their peers, themselves, and the disability community. The results of this study suggest that there is still more to learn about the experiences and lives of students with impairments (Dunn and Burcaw 2013; Weitzner et al., 2011).

It has been found that those students with disabilities and mental health issues were associated with negative affectivity of emotions but fewer mental health issues were positively associated with positive affectivity emotions. It can be said that students who report mental health issues because of their disability conditions or obstacles in their lives therefore they have more chances of developing mental health issues including anxiety, stress, depression, and decreased quality of life and psychological well-being (Aranguren, 2017). It can impact their academic achievement and overall subjective well-being.

University students with disabilities report that their quality of life is unsatisfactory because they have obstacles in their lives (Nandjui et al., 2008). It has also been reported that professionals' lack of a multidisciplinary approach has an impact on their quality of life (Martín & Sánchez 2016). Lower satisfaction in the quality-of-life sub-domain social ties was linked to academic accomplishment in higher education, suggesting that attending college has harmed a disabled student's social interactions (Dryer et al., 2016).

Conclusion

The examination of positive and negative affect on mental health among students with disabilities underscores the intricate interplay between emotional experiences and mental well-being in this demographic. While positive affectivity can serve as a protective factor, fostering resilience and adaptive coping mechanisms, negative affectivity poses significant challenges, potentially exacerbating stressors and hindering psychological adjustment. These findings emphasize the importance of tailored interventions aimed at promoting positive emotional experiences and mitigating negative affect among students with disabilities, ultimately fostering a supportive environment conducive to their overall mental health and academic success.

Limitations and future suggestion

A potential limitation of exploring the impact of positive and negative affect on mental health among students with disabilities lies in the complexity of measuring affective states accurately within this population, considering the diverse range of disabilities and individual experiences. Future research could address this by employing more nuanced and comprehensive assessment tools tailored to different disability types and severity levels. Additionally, longitudinal studies could provide deeper insights into the dynamic interplay between affect and mental health outcomes over time, enabling the development of more targeted interventions and support strategies for this vulnerable group.

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