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Research Paper

Emotional Intelligence of Undergraduate Students with and without Disability

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ABSTRACT

This study investigates the emotional intelligence (EI) of undergraduate students with disability and students without disabilities at Jadavpur University, Kolkata. The research explores the differences and similarities in EI among these two groups, focusing on how disability status influences EI. Utilizing the Emotional Intelligence Inventory, the study assessed a sample of 150 undergraduate students, including those without disability and side by side students with disability such as visual, locomotor, and hearing impairments. Results indicate that students without disabilities generally exhibit higher EI levels than their disabled counterparts. The study also reveals that the level of EI varies significantly across different types of disabilities, with a notable negative correlation between the percentage of disability and EI levels. These findings underscore the necessity for educational institutions to adapt their curricula and provide specialized support for the emotional development of students with disabilities.

The concept of Emotional Intelligence (EI) has roots in early 20th-century studies of social and emotional competencies, but it was formally conceptualized in the 1990s. The groundwork was laid by Thorndike's idea of "social intelligence" in the 1920s (Thorndike, 1920) and further expanded by Howard Gardner's theory of multiple intelligences in 1983, which introduced interpersonal and intrapersonal intelligences (Gardner, 1983). Salovey and Mayer (1990) were introduced the phrase "Emotional Intelligence." They defined it as a type of social intelligence that encompasses the capacity to observe and understand both one's own emotions and the emotions of others. The concept was popularized by Daniel Goleman in 1995, asserting its significance in leadership and organizational success (Goleman, 1995). The World Health Organization (WHO) highlights the vital role of emotional intelligence in physical and mental wellness. It advocates for school-based programs that develop life skills like managing emotions, stress, and social skills for mental health and resilience (WHO, 1997). Emotional intelligence is also a key component of education for sustainable development and global citizenship, promoting

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socio-emotional skills for peaceful living and respect for diversity (UNESCO, 2015). It can be assumed that undergraduate students in India are most likely to fall under the later adolescent stage (18–21 years) of development, which is the most important stage of growth and development (Vygotsky, 1931). Physical, social and psychological development did happen during this critical phase (Spear, 2000). It is the period when almost all the students started to enroll in higher education where students need to develop the ability of emotional intelligence for develop their mental health, success in various life domains, and take responsibility for society. Today, EI continues to be a vibrant area of research, with studies exploring its implications in various domains, including education, organizational development, and mental health. Contemporary research often focuses on how EI can be developed and its predictive value for success in various life domains (Zeidner, Matthews, & Roberts, 2002; Petrides, Furnham, & Mavroveli, 2007). This study examines emotional intelligence of undergraduate students with and without disabilities at Jadavpur University, Kolkata. The study aims to identify differences and similarities in emotional intelligence among students with disabilities and without disabilities.

Rationale of the study

Emotional Intelligence (EI), as described by Salovey and Mayer (1990), is the capacity to comprehend and manage one's own emotions, as well as the emotions of others. This ability is crucial for individual mental health and successful interpersonal relationships. Emotional intelligence, which includes skills like self-awareness, empathy, and interpersonal relationships, is crucial for overall well-being, social interactions, and academic experiences. This study investigates the disparities in EI between undergraduate students with disabilities and those without. Recognizing that students with disabilities may face unique challenges in the educational setting, this research is crucial for understanding how these challenges might affect their emotional intelligence (Hadley, 2007). Inclusive education is a key focus in current academic discourse, emphasizing the need to cater to diverse student populations, including those with disabilities (Smith, 2012). By examining the variations in EI between these groups, the study seeks to enhance the advancement of inclusive and efficacious educational approaches. The research acknowledges the importance of inclusive education and the unique challenges faced by students with disabilities. Understanding how emotional intelligence is influenced by disability status can help educators, policymakers, and support staff design more effective support systems (Davis, 2006). The study also contributes to societal goals of fostering inclusivity and reducing stigmas associated with disabilities. It aims to ensure equal opportunities for all students, regardless of their disability status, to develop their emotional intelligence and thrive in their academic and personal lives.

Research questions
1. What is the present status of emotional intelligence among undergraduate students?
2. Are there any gender differences in the emotional intelligence of students with disability and without disability?
3. How does the emotional intelligence of students with disability vary by the type of disability they have?

Delimitations
1. The study was delimited to only the undergraduate students of Jadavpur University in West Bengal.
2. The Study was delimited to only 150 undergraduate students.
3. This study was delimited to only four demographic or independent variables i.e., disability, gender, and types of disability.

4. The study was considered only three types of disability among undergraduate students with disability i.e., visually impaired, locomotor disability and hearing impaired.

Objectives

1. To know the present status of emotional intelligence among undergraduate students with and without disability in Jadavpur University.
2. To know the emotional intelligence among undergraduate students with disability concerning to their disability.
3. To know the emotional intelligence among undergraduate students with disability concerning to their gender.
4. To know the emotional intelligence among undergraduate students without disability concerning to their gender.
5. To know the emotional intelligence among undergraduate students with disability concerning to their types of disability.
6. To examine the relationship between percentage of disability and emotional intelligence among undergraduate students with disability.

Hypothesis

- **$H_0$1:** Emotional intelligence means score does not significantly differ between undergraduate students with disability and without disability.
- **$H_0$2:** Emotional intelligence mean score does not significantly differ among undergraduate students with disability in terms of their gender.
- **$H_0$3:** Emotional intelligence mean score does not significantly differ among undergraduate students without disability in terms of their gender.
- **$H_0$4:** Emotional intelligence mean score does not significantly differ among undergraduate students with disability in terms of their types of disability.
- **$H_0$5:** Percentage of disability is not significantly correlated with the Emotional intelligence among undergraduate students with disability.

METHODOLOGY

A Cross-sectional survey framework was designed to assess the emotional intelligence of undergraduate students. All Undergraduate students with and without disability of Jadavpur University in Kolkata, West Bengal were considered as the target population of the study. A sample of 150 undergraduate students including 73 students with disability and 77 students without disability was chosen from Jadavpur University using simple random sampling method. Emotional intelligence was observing as the dependent variable and disability, with disability, without disability, and types of disability were considered as the independent variables of the study. The Emotional Intelligence Inventory was utilized to assess emotional intelligence of undergraduate students. There are only 40 items on this standardized scale developed by Annaraja and Perumalil (1980). Statement of each item are in the form of five-point scale i.e., 'strongly agree', 'agree', 'undecided', 'disagree', and 'strongly disagree'. The Emotional Intelligence inventory has four components such as self-awareness, self-management, social-awareness and relationship management. In this study, investigators collected 50 data form Undergraduate students in Jadavpur University. From this data, the investigators checked reliability and validity. The result of the pilot study was compared with the result of the final study to ensure the consistency of results by using internal consistency reliability. Here the internal consistency reliability value was $\alpha = 0.793$. This value is acceptable. So, the scale is ready for final data collection. As the original Bengali

version of the scale was used in this study, the content, concurrent and face validity ware maintained by the researchers talking the help of experts. And the data was analyzed through descriptive statistics in MS Excel and t-test, ANOVA and correlation was computed using IBM SPSS version 20 and JAMOVI version 2.3.24.

Descriptive statistics
Table 1.1 Showing the mean distribution of overall emotional intelligence based on independent variables.

Independent Variables	Category	Number of Participants	Mean	SD
Disability	With Disability	73	152.424	8.953
	Without Disability	77	167.181	8.933
With Disability	Male	64	152.921	9.198
	Female	9	148.888	6.253
Without Disability	Male	38	166.50	8.063
	Female	39	167.84	9.767
Types of Disability	No Disability	77	167.181	8.933
	Visually Impaired	57	153.807	8.016
	Locomotor Disability	13	147.153	11.788
	Hearing Impaired	3	149.000	.000

Figure 1.1 Showing the mean distribution of overall emotional intelligence based on independent variables.
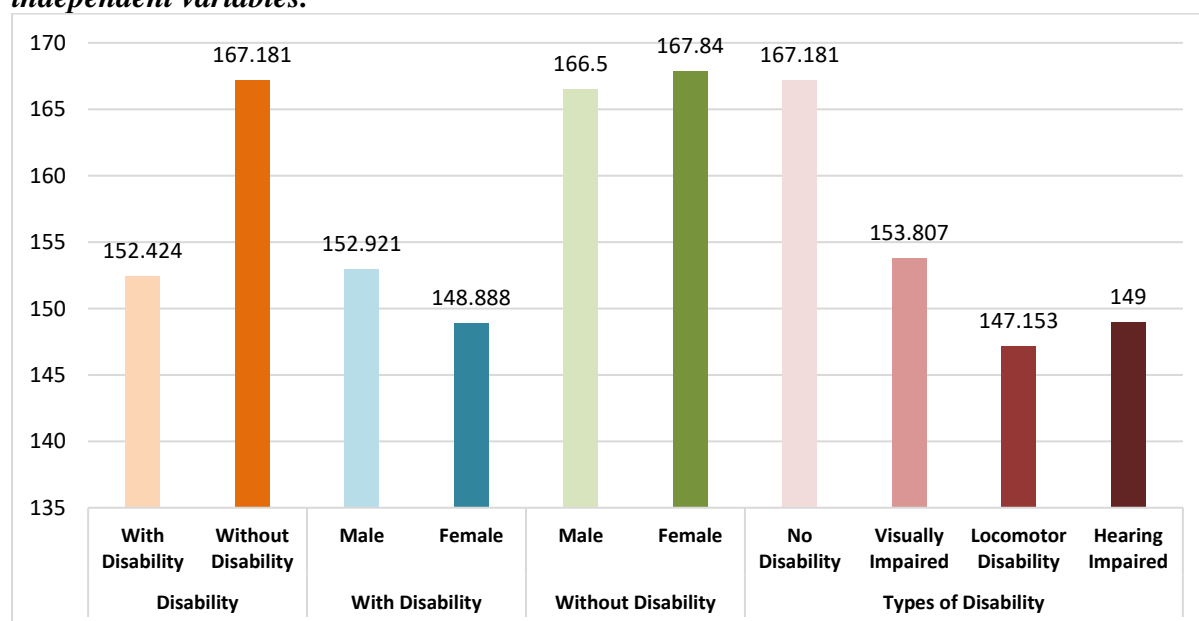
Inferential Statistics
Table 1.2 Comparison of Emotional Intelligence Across Disability and Gender Groups.

Independent samples t-Test							
Dependent Variables	Independent Variables (IV)	Category	t	df	Sig. (2-tailed)	Mean Difference	Remarks (0.05 level)
Emotional Intelligence	**Disability**	With Disability & Without Disability	-10.10	148	.000	-14.75716	**Significant**
	With Disability	Male & Female	1.27	71	.208	4.03299	**Not Significant**
	Without Disability	Male & Female	-.65	75	.512	-1.34615	**Not Significant**

Results of $H_0$1: Table 1.2 shows that the calculated t-value for emotional intelligence, based on the disability of students, was **t $_{(148)}$ = -10.10**, with a **p-value of 0.000**. The mean scores exhibited a statistically significant difference at a significance level of 0.05 (p<0.05). Thus, the aforementioned $H_0$1 is rejected.

Results of $H_0$2: Table 1.2 shows that the calculated t-value for emotional intelligence among students with disabilities was **t $_{(71)}$ = 1.271**, with a **p-value of .208**. The mean scores of male and female students with disabilities did not show statistically significant difference (p>0.05). Thus, the researchers failed to reject the aforementioned $H_0$2.

Results of $H_0$3: Table 1.2 shows that the calculated t-value for emotional intelligence among students without disabilities was **t $_{(75)}$ = -.659**, with a p-value of **.512**. The mean scores of male and female students without disabilities did not show statistically significant difference (p > 0.05). Thus, the researchers failed to reject the previously mentioned $H_0$3.

Table 1.3 One-Way ANOVA Results of Emotional Intelligence Based on Types of Disability.

One-Way ANOVA							
Dependent Variables		Sum of Squares	df	Mean Square	F	Sig. (2-tailed)	Remarks (0.05 level)
Emotional Intelligence	**Between Groups**	8665.976	3	2888.659	37.217	0.000	**Significant**
	Within Groups	11332.024	146	77.617			
	Total	19998.000	149				

Results of $H_0$4: The computed one-way ANOVA of emotional intelligence among participants by types of disability was **[F (3, 146) = 37.217, p=0.000, p<0.05]**, as shown in Table 1.3. The difference in the mean was statistically significant at 0.05 level (p<0.05). Therefore, the previously mentioned $H_0$4 is rejected.
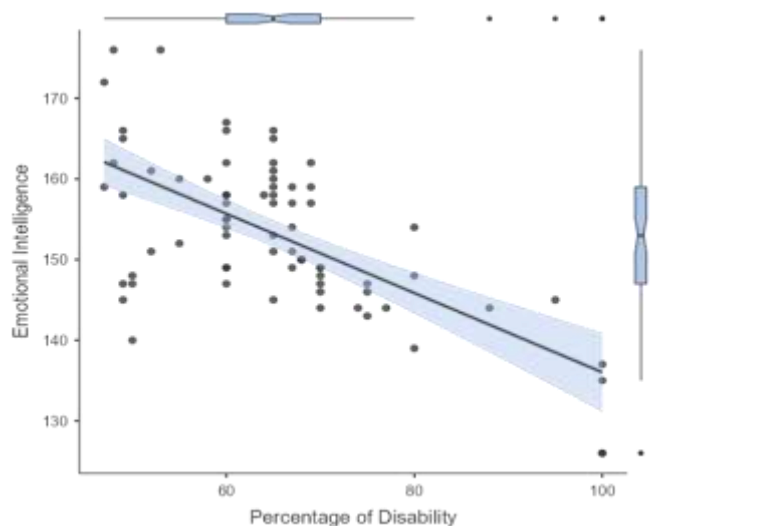
Table 1.4 Pearson Correlation Between Emotional Intelligence and Percentage of Disability.

Pearson Correlation		Emotional Intelligence
Percentage of Disability	Pearson Correlation	-.638**
	Sig. (2-tailed)	.000
	N	73

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

Figure 1.2 Scatterplot showing correlation between percentage of disability and emotional intelligence.

Results of $H_0 5$: Table 1.4 and Figure 1.2 showed that percentage of disability and emotional intelligence of participants is negatively correlated. The correlation between a percentage of disability with emotional intelligence was statistically significant at 0.01 level **(r= -.638; p<0.01).** So, the aforementioned null hypothesis is rejected and there exists significant relationship between percentage of disability and emotional intelligence. Those students' disability score is high their emotional intelligence is worse.

Summary of the findings
- The present status of overall emotional intelligence of undergraduate students in Jadavpur University was found to be 160.00.
- Undergraduate students without disability (m=167.181, sd= 8.933) were found to be more emotionally intelligent than students with disability (m= 152.424, sd= 8.953) and the result was found to be statistically significant (P <0.05).
- Male students (m= 152.921, sd= 9.198) were found to be more emotionally intelligent than female students (m= 148.888, sd= 6.253) within the students with disability but the result was found to be statistically not significant (P >0.05).
- Female students (m= 167.84, sd= 9.767) were found to be more emotionally intelligent than male students (m= 166.50, sd= 8.063) within the students without disability but the result was found to be statistically not significant (P >0.05).
- Students with no disability (m=167.181, sd= 8.933) showed better emotional intelligence than students with Visually Impaired (m= 153.807, sd= 8.016), students with Hearing Impaired (m= 149.000, sd= .000) and students with Locomotor

Disability (m= 147.153, sd= 11.788) but the result was found to be statistically significant (P <0.05).

- A strong negative correlation (r= -.638) was found between percentage of disability and emotional intelligence. Coefficient correlation between percentage of disability and emotional intelligence score was found to be significant at 0.01 level. So, it can be said those students' disability score is high their emotional intelligence is worse.

DISCUSSION AND CONCLUSION

Emotional intelligence (EI) is becoming more and more important in today's world, especially in professional environments (Cherniss & Goleman, 2001). Its significant impact on team dynamics, leadership effectiveness, and job performance is well-documented (Bar-On & Parker, 2000). Leaders possessing high levels of EI are known to foster positive work environments, thereby enhancing employee morale and performance (Goleman, 1998). The advent of remote work and digital communication further underscores the value of emotional understanding in nurturing productive relationships (Goleman, Boyatzis, & McKee, 2002). In healthcare, EI is essential for effective patient-doctor interactions, particularly during crises (Freshwater & Stickley, 2004), illustrating its critical role across various sectors and highlighting its profound significance in our interconnected world (Mayer, Roberts, & Barsade, 2008). Additionally, educational institutions acknowledge the importance of EI in students, noting its positive effects on academic success, interpersonal skills, and emotional well-being (Brackett, Rivers, & Salovey, 2011). Consequently, EI-focused activities are being incorporated into educational curriculums to cultivate vital competencies such as self-awareness, empathy, and conflict resolution (Elias et al., 1997).

The primary objective of this study was to examine the current level of emotional intelligence among undergraduate students with and without disabilities at Jadavpur University, specifically considering different demographic factors.

Findings of the study showed that undergraduate students without disability were found to be more emotionally intelligent than students with disability and the result was found to be statistically significant, similar results were found in different researches (Naz, 2016; Kelly et al. 1994). Again, results revealed that there is no significant mean difference in emotional intelligence between male and female students with disability, similar results were found in different researches (Reiff et al. 2001; Shnekat, 2015). Side by side in the case of without disability students results revealed that Female students were found to be more emotionally intelligent than male students within the students without disability but the result was found to be statistically not significant, similar results was found in different researches (Reiff et al. 2001; Sharei et al. 2012). Again, results revealed that students with no disability showed better emotional intelligence than students with Visually Impaired, students with Hearing Impaired, and students with Locomotor Disability but the result was found to be statistically significant, apart from the no handful study in this present context. Also results of Pearson correlation between percentage of disability and emotional intelligence among students with disability was found a strong negative correlation and it was statistically significant and apart from no handful study in this present context.

Educational Implications
Researchers suggests following educational implication based on the findings of this study-

- *Individualized Emotional Development Support:* Educational institutions should recognize that students with disabilities, particularly those with Visual Impairments, Hearing Impairments, and Locomotor Disabilities, may require more targeted

support in developing emotional intelligence. Schools can provide specialized services to address these specific needs.

- *Curriculum Adaptation:* Educational institutions should consider adapting their curricula to address the emotional development needs of students with disabilities. This might involve incorporating emotional intelligence-related topics, exercises, and discussions into the existing curriculum.
- *Inclusive Education:* The findings underscore the importance of inclusive education. Promoting an inclusive environment that fosters interactions between students with and without disabilities can help facilitate the progress of emotional intelligence across all students. Also, emphasizing that emotional intelligence is not influenced by gender among students with disabilities promotes inclusivity and equality. This can inform educational institutions and policymakers in creating environments that support students regardless of their gender.
- *Early Intervention:* Early intervention programs can be designed to help students with disabilities develop emotional intelligence from an early age. Identifying and addressing emotional needs can improve their overall well-being and academic success.
- *Teacher Training:* Educators and support staff should receive training in recognizing and addressing the emotional needs of students with disabilities. They can learn strategies to create a supportive and inclusive classroom environment.

Apart from this, researchers encourage further research to explore the specific factors that contribute to the differences in emotional intelligence among students with disabilities and develop targeted interventions accordingly.

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