


Cultural Awareness and Empathy Among Undergraduate Students

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Abstract

Intercultural competence has become an essential attribute for students in culturally diverse academic environments. The present study examined the level of cultural awareness and cultural empathy among undergraduate students and explored the relationship between these two variables. A cross-sectional survey was conducted among 100 undergraduate students from four colleges in Balasore, Odisha, selected through stratified random sampling. Two self-developed instruments, the Cultural Awareness Scale (23 items; $\alpha = 0.72$) and the Cultural Empathy Scale (27 items; $\alpha = 0.744$), were administered. Data were analysed using descriptive statistics, independent sample t-tests, one-way ANOVA, and Pearson's correlation coefficient. The findings revealed moderate to high levels of cultural awareness ($M = 86.6$) and cultural empathy ($M = 100$). No significant gender differences were observed in either cultural awareness or empathy. However, significant differences were found across academic streams, with Science and Arts students scoring higher than Vocational students. A strong positive correlation ($r = 0.778$, $p < 0.01$) was identified between cultural awareness and cultural empathy, indicating that higher cultural awareness contributes to stronger empathic engagement. The study highlights the importance of integrating intercultural education and inclusive learning practices in higher education to strengthen students' intercultural competencies.

Keywords: Cultural awareness; Cultural empathy; Higher education; Intercultural competence; Undergraduate students.

Introduction

Culture is a fundamental aspect of human life that shapes individuals' beliefs, values, communication patterns, and social interactions. It provides a shared framework through which individuals interpret experiences and regulate behaviour within society (Samovar et al., 2012). Cultural norms and practices are learned through socialization within families, communities, and institutions, gradually becoming embedded in everyday life. These cultural patterns influence how individuals perceive social situations, make judgments, and interact with others. Even seemingly simple behaviours, such as greeting styles, eye contact, and emotional expression, often carry culturally specific meanings that guide interpersonal communication.

In the contemporary era of globalization, migration, and digital connectivity, interactions among individuals from diverse cultural backgrounds have become increasingly common. Higher education institutions bring together students from diverse linguistic, cultural, and socioeconomic backgrounds, thereby creating multicultural academic environments (Tomlinson, 1999). Such diversity enriches intellectual exchange and broadens students' perspectives; however, it may also lead to misunderstandings or social distance when individuals lack the competencies required for effective

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intercultural communication (Hofstede, Hofstede, & Minkov, 2010). Consequently, the development of intercultural competence has become an important objective of higher education.

Among the key components of intercultural competence, cultural awareness and cultural empathy are widely recognized as essential. Cultural awareness refers to an individual's ability to recognize cultural differences, understand diverse cultural values, and critically reflect on one's own cultural assumptions (Spencer-Oatey & Franklin, 2009). Cultural empathy, by contrast, represents the emotional capacity to understand and appreciate the perspectives, feelings, and experiences of individuals from different cultural backgrounds (Bennett, 1993). Together, these competencies enable individuals to communicate effectively, build respectful relationships, and engage constructively within multicultural environments.

Higher education institutions play a crucial role in fostering these competencies through multicultural education, culturally responsive teaching, and intercultural learning experiences (Gay, 2018; UNESCO, 2013). Such initiatives encourage students to develop sensitivity toward cultural diversity and promote inclusive and respectful interactions within academic settings.

Despite the increasing recognition of intercultural competence in global educational discourse, empirical research examining the relationship between cultural awareness and cultural empathy among undergraduate students remains limited in the Indian context. Most existing studies have been conducted in Western educational settings, leaving a gap in understanding how these competencies develop within culturally diverse societies such as India. Addressing this gap is important for informing educational strategies that promote intercultural understanding, inclusive learning environments, and socially responsible citizenship among university students.

The study examines the relationship between cultural awareness and cultural empathy among undergraduate students, to understand how awareness of cultural differences contributes to the development of empathetic engagement in multicultural academic environments.

Review of Literature

Intercultural competence has become an increasingly important area of research due to the growing cultural diversity within educational institutions and societies. Scholars have emphasized that cultural awareness forms the cognitive foundation for understanding cultural diversity and recognizing the influence of cultural contexts on communication and behaviour (Spencer-Oatey & Franklin, 2009). Individuals with higher levels of cultural awareness are better able to interpret cultural differences, reflect on their own cultural assumptions, and avoid ethnocentric perspectives.

Bennett (1993) proposed the Developmental Model of Intercultural Sensitivity, which explains how individuals progress from ethnocentric orientations toward ethnorelativism, where cultural differences are acknowledged and appreciated. Within this framework, cultural empathy is considered an essential component of intercultural competence, as it enables individuals to understand and respond sensitively to the experiences and perspectives of people from different cultural backgrounds. Such empathetic understanding facilitates meaningful communication and promotes mutual respect in multicultural settings.

Empirical studies have highlighted the association between cultural awareness, emotional intelligence, and intercultural competence. Drame et al. (2021) found that students with higher emotional intelligence and cultural competency demonstrate greater cultural awareness and more effective intercultural communication skills. Similarly, Agarwal and Sandilya (2020) reported that intercultural sensitivity among Indian undergraduate and postgraduate students is significantly related to psychological factors such as self-esteem and emotional intelligence.

Students' intercultural competences have also been demonstrated to be improved by educational interventions. Butte and Hristova (2024), for instance, showed that undergraduate students' knowledge, self-efficacy, and ethnocultural empathy were all greatly enhanced by cultural sensitivity training. Similarly, Jaiswal, Sapkota, and Acheson (2024) discovered that involvement in semester-long study abroad programs significantly enhanced students' intercultural competency, especially with regard to perspective-taking and cultural awareness.

Multicultural education and culturally responsive teaching are widely regarded as effective approaches for developing cultural awareness and empathy. Gay (2018) argues that culturally responsive pedagogy encourages students to critically engage with cultural diversity while fostering inclusive classroom environments. Similarly, Cummins (1996) emphasizes that educational institutions should empower students by acknowledging cultural identities and promoting intercultural understanding. Experiential learning opportunities—such as intercultural dialogue, collaborative projects, and community engagement—also provide meaningful contexts in which students can develop intercultural sensitivity and empathy (Richards & Doorenbos, 2016).

Despite the growing international focus on intercultural competence, empirical research examining the relationship between cultural awareness and cultural empathy among undergraduate students remains limited, particularly in developing countries. Many existing studies focus primarily on intercultural training programs or international mobility experiences, rather than on the direct relationship between awareness and empathy among students in culturally diverse societies (Saint Paul, 2010; Sharma & Murhar, 2025).

Methodology

Assuring the validity, reliability, and generalizability of the results, a well-structured research design helps the researcher make well-informed judgments at every stage of the investigation. Research design, according to Creswell (2014), is "the plan or proposal to conduct research, involving the intersection of philosophy, strategies of inquiry, and specific methods."

Research Design:

The study used a cross-sectional descriptive survey design to examine levels of cultural awareness and cultural empathy among undergraduate students in the Balasore district of Odisha. This design was appropriate as it allowed the researcher to assess existing attitudes and perceptions at a single point in time without manipulating any variables. The survey method also facilitated systematic comparison across gender and academic streams.

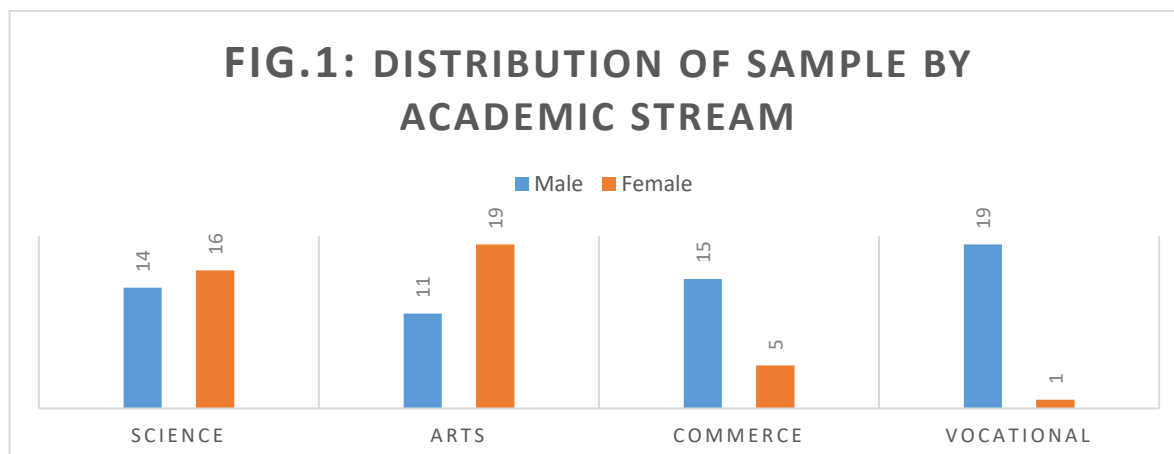
Population:

The target population consisted of undergraduate students enrolled in Arts, Science, Commerce, and Vocational programmes in degree colleges in Balasore district, Odisha.

Sample and Sampling Procedure:

The study included 100 undergraduate students. In the first stage, convenience sampling was used to select four-degree colleges in Remuna, Balasore. It is due to accessibility and administrative feasibility. In the second stage, stratified random sampling was applied within these colleges to ensure representation across gender (male and female) and academic streams (Arts, Science, Commerce, and Vocational).

A total of 112 questionnaires were distributed, of which 100 complete responses were retained for analysis, yielding a response rate of 89.3%. Incomplete questionnaires were excluded to maintain data quality.



Instruments:

Data for the study were collected using two self-developed Likert-type scales: the Cultural Awareness Scale (CAS) and the Cultural Empathy Scale (CES). The Cultural Awareness Scale consisted of 23 positively worded items designed to measure students' awareness of cultural diversity, values, traditions, and social practices across different cultural groups. The Cultural Empathy Scale comprised 27 positively worded items designed to assess respondents' empathic understanding, sensitivity, and ability to adopt the perspectives of individuals from diverse cultural backgrounds.

Instrument Development:

The instruments were developed after an extensive review of relevant literature on cultural competence, intercultural sensitivity, and empathy in educational settings. The items were carefully constructed to reflect key theoretical dimensions of cultural awareness and empathy among undergraduate students. To ensure content validity and clarity of the statements, the scales were reviewed by experts in education and research methodology. Based on their suggestions and feedback, necessary modifications and refinements were made before finalizing the data collection instruments.

Response Format:

A five-point Likert scale was used, with 1 denoting strongly disagree, 2 disagree, 3 neutral, 4 agree, and 5 strongly agree.

Study Variables:

The study included cultural awareness as the independent variable and cultural empathy as the dependent variable. The research primarily examined the influence of cultural awareness on cultural empathy among undergraduate students.

Validity and Reliability:

Content validity was established through expert evaluation to ensure the relevance and clarity of scale items. Reliability was assessed using the split-half method, which measures internal consistency of the instruments. The reliability coefficients were 0.72 for the Cultural Awareness Scale and 0.744 for the Cultural Empathy Scale, indicating acceptable reliability for research purposes.

Data Collection Procedure:

Permission was sought from the heads of the chosen colleges prior to data collection. In addition to being ensured of secrecy and voluntary participation, participants were made aware of the study's objectives. Each session lasted roughly thirty minutes, and the questionnaires were given out in classroom settings.

Data Analysis:

Microsoft Excel was used to code and analyse the gathered data. The data was summarized and interpreted using descriptive statistical methods. To evaluate undergraduate students' general levels of cultural understanding and empathy, the mean and the standard deviation were computed. Additionally, the research variables were examined for differences and connections using inferential statistical methods. Gender-based differences in cultural awareness and cultural empathy were found using an independent sample t-test, while differences between academic streams were examined using a one-way ANOVA. Additionally, the association between cultural awareness and cultural empathy among the respondents was examined using Pearson's correlation coefficient.

Results

Data analysis plays an important role in finding the patterns, trends, and relationships within the collected data. In this study, both descriptive and inferential statistical techniques were applied to analyse the levels of cultural awareness and cultural empathy among undergraduate students.

Descriptive analysis:

Descriptive statistics were used to summarise the main characteristics of the data. Measures such as mean and standard deviation helped to understand the general level and variation of cultural awareness and cultural empathy among the respondents.

Inferential Analysis:

Inferential statistical techniques were applied to examine group differences and relationships between variables. Independent sample t-tests were used to analyse gender differences, while a one-way ANOVA was conducted to examine variations across academic streams. In addition, Pearson’s correlation coefficient was used to determine the relationship between cultural awareness and cultural empathy among undergraduate students.

Cultural Awareness:

The ability to identify, comprehend, and value cultural differences in terms of beliefs, values, and social behaviours is known as cultural awareness. In an educational setting, it fosters inclusive and courteous interactions between people from various cultural backgrounds and helps students become more receptive to varied viewpoints.

Table 1: Significant difference in the mean cultural awareness score of students, with reference to their gender

Variable	Group	N	Means	S.D.	Df	t-value	Level Of Significance
Cultural awareness	Male students	59	86.23	10.785	98	0.411	Not Significant
	Female Students	41	87.12	10.269			

Table 1 presents the comparison of cultural awareness scores between undergraduate male and female students. The mean score of male students was 86.23 (SD = 10.785), whereas female students recorded a slightly higher mean score of 87.12 (SD = 10.269). The calculated t-value (0.411) with 98 degrees of freedom was found to be statistically non-significant at the 0.05 level.

This result reveals that there is no significant gender difference in cultural awareness among undergraduate students. Although female students demonstrated marginally higher awareness scores, the difference was not statistically meaningful. Therefore, it can be concluded that male and female students possess similar levels of cultural awareness.

Table 2. One-way ANOVA result of the cultural awareness score of students from various streams of education

Source of Variation	SS	Df	MS	F-statistical	F- critical	Level of significance
Between Groups	2550.483	3	850.16	9.677	2.699	Significant at 0.01
Within Groups	8433.517	96	87.849			

The results of the one-way ANOVA presented in Table 2 show significant differences in cultural awareness scores among students from different academic streams. The obtained F-value (9.677) was higher than the critical value (2.699) at the 0.01 level of significance, indicating that cultural awareness levels vary significantly across academic streams. This suggests that students’ academic background may influence their exposure to and understanding of cultural diversity.

Table 3: Mean difference in cultural awareness scores of students from different streams of Education (Arts, Science, Commerce, Vocational)

Stream	N	Mean	df	t-value	t-critical	Level of Significance
Science	30	92.23	58	1.784	2.001	Not Significant
Arts	30	87.4				
Science	30	92.23	48	2.078	2.010	Significant at 0.05
Commerce	20	85.5				
Science	30	92.23	48	5.690	2.010	Significant at 0.01
Vocational	20	77.75				
Arts	30	87.4	48	0.599	2.010	Not significant
Commerce	20	85.5				
Arts	30	87.4	48	4.288	2.010	Significant at 0.01
Vocational	20	77.75				
Commerce	20	85.5	38	3.466	2.024	Significant at 0.01
Vocational	20	77.75				

Further pairwise comparisons using t-tests (Table 3) were conducted to identify specific differences between academic streams. The results revealed significant differences between Science and Commerce, Science and Vocational, Arts and Vocational, and Commerce and Vocational students. In contrast, no significant differences were observed between Science and Arts and Arts and Commerce students. These findings suggest that students enrolled in vocational streams reported comparatively lower cultural awareness scores, which may be associated with differences in curriculum exposure or learning environments.

Cultural Empathy:

The capacity to comprehend and emotionally connect to the experiences, viewpoints, and emotions of people from diverse cultural backgrounds is known as cultural empathy. It fosters inclusive social relationships, lessens cultural misunderstandings, and encourages polite communication.

Table 4: Significant Difference in the Mean Cultural Empathy Score of students based on their basis of Gender

Variable	Group	N	Means	S.D.	Df	t-value	Level Of Significance
Cultural Empathy	Male students	59	98.76	14.407	98	1.145	Not Significant
	Female Students	41	101.78	10.503			

The comparison of cultural empathy scores between male and female students is presented in Table 4. Male students recorded a mean score of 98.76 (SD = 14.407), while female students had a slightly higher mean score of 101.78 (SD = 10.503). However, the calculated t-value (1.145) with 98 degrees of freedom was not statistically significant. This finding

indicates that gender does not significantly influence cultural empathy among undergraduate students. Although female students demonstrated somewhat higher empathy scores, the difference was not statistically meaningful.

Table 5: One-way ANOVA result of the cultural empathy score of students from various streams of education

Source of Variation	SS	Df	MS	F-statistical	F- critical	Level of significance
Between Groups	3679.083	3	1226.36	9.06	2.699	Significant at 0.01
Within Groups	12992.92	96	135.342			

The ANOVA results (Table 5) reveal significant variations in cultural empathy scores among students from different academic streams. The calculated F-value (9.06) exceeded the critical value (2.699) at the 0.01 level of significance, indicating that cultural empathy differs significantly across academic disciplines. This suggests that academic experiences and learning contexts may influence students' empathic engagement with cultural diversity.

Table 6: Mean difference in Cultural Empathy scores of students from different streams of Education (Arts, Science, Commerce, Vocational)

Stream	N	Mean	Df	t-value	t-critical	Level of Significance
Science	30	106.8	58	1.884	2.001	Not Significant
Arts	30	100.23				
Science	30	106.8	48	1.949	2.010	Not Significant
Commerce	20	100.15				
Science	30	106.8	48	5.923	2.010	Significant at 0.01
Vocational	20	89.3				
Arts	30	100.23	48	0.002	2.010	Not significant
Commerce	20	100.15				
Arts	30	100.23	48	3.308	2.010	Significant at 0.01
Vocational	20	89.3				
Commerce	20	100.15	38	4.295	2.024	Significant at 0.01
Vocational	20	89.3				

The disparities between academic streams are further explained by the pairwise comparisons shown in Table 6. There were notable distinctions between science and vocational, arts and vocational, and commerce and vocational pupils. Students studying Science and Arts, Science and Commerce, and Arts and Commerce did not, however, differ much from one another. According to these findings, students from different academic streams demonstrated comparably equal degrees of cultural empathy, but vocational stream students reported considerably lower levels.

Relationship between Cultural Awareness and Cultural Empathy

The coefficient of correlation can be used to determine the link between cultural awareness and cultural empathy. The connection between two or more paired variables or two or more data sets is known as correlation. Correlation coefficients are used to quantify and illustrate the strength of a relationship. The letter "r" is used to symbolise this.

Table 7: Coefficient of Correlation between Cultural Awareness and Cultural Empathy of Undergraduate Students

Variables	N	Means	“r”
Cultural Awareness	100	86.6	0.778
Cultural Empathy	100	100	

The relationship between cultural awareness and cultural empathy was examined using Pearson’s correlation coefficient, as presented in Table 7. The correlation coefficient ($r = 0.778$) was found to be positive and also statistically significant at the 0.01 level. This indicates a strong positive relationship between cultural awareness and cultural empathy among undergraduate students. The result suggests that students who demonstrate higher levels of cultural awareness are also more likely to exhibit stronger cultural empathy. In other words, a greater understanding of cultural diversity is associated with greater empathic engagement toward individuals from different cultural backgrounds.

Conclusion

The present study examined the levels of cultural awareness and cultural empathy among undergraduate students and explored the relationship between these two dimensions. The findings reveal that there is no statistically significant difference between male and female students in terms of cultural awareness and cultural empathy, which is negligible, suggesting that gender does not play a significant role in shaping these intercultural competencies. However, significant differences were observed across academic streams. Students from the Science and Arts streams generally demonstrated higher mean scores in both cultural awareness and cultural empathy, whereas students from the Vocational stream reported comparatively lower levels. These findings indicate that academic exposure and learning environments may influence the development of intercultural understanding among students.

A major finding of the study is the strong and positive correlation between cultural awareness and cultural empathy ($r = 0.778$, $p < 0.01$). This relationship suggests that as students’ awareness and understanding of cultural diversity increase, their ability to empathize with individuals from different cultural backgrounds also improves. From a theoretical perspective, the study contributes to the existing literature on intercultural competence by highlighting the close connection between cognitive understanding of culture (cultural awareness) and emotional responsiveness (cultural empathy).

The findings also have important practical implications for higher education. Universities and colleges should promote intercultural education through diversity-oriented curricula, experiential learning opportunities, and intercultural activities across all academic streams. Vocational programs may benefit from integrating intercultural workshops, value-based education, and community engagement initiatives to enhance students’ awareness and empathy. By fostering cultural awareness and empathy, higher education institutions can help develop graduates who are socially responsible, culturally sensitive, and well prepared to function effectively in increasingly diverse and globalized societies.

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