



# A CROSS-SECTIONAL STUDY TO DETERMINE THE LEVEL OF EMPATHY AMONG UNDERGRADUATE OCCUPATIONAL THERAPY STUDENTS AS RELATED TO GENDER AND VARIOUS ACADEMIC YEARS

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**Abstract:** This study has been undertaken to Determine the Level of Empathy among Undergraduate Occupational Therapy Students as Related to Gender and Various Academic Years with objective of determining the level of Empathy among undergraduate Occupational Therapy students studying in Sri Ramachandra Institute of Higher Education and Research (Deemed to be University) Chennai India .and comparing the level of Empathy among various academic years and gender. The total number of participants consisted of 121 undergraduate Occupational Therapy students of whom 86 were female and 35 were male and the study was conducted for 2 weeks period by using Convenience Sampling. A cross-sectional study using a paper-based survey of the Toronto Empathy Questionnaire was administered to students. In this current study, respondents possess an average level of Empathy and the level of Empathy was found to be equal among all four academic year and was found to be higher among female students. Educational intervention can be adapted to enhance better understanding of Empathy which in turn improves patient care.

## I. INTRODUCTION

The term *Empathy* was a first attempt to translate the German word *Einführung*, meaning the “feeling within” a person, which the German philosopher and psychologist Theodor Lipps used in his works [1]. Etymologically it originates from the Greek term *empathia*, which means affection [2]. Although there is wide variation in the understanding of the term empathy, to date, many authors use the terms *emotional* (affective) and *cognitive* empathy. There is a general agreement amongst scholars on the definition of these two constructs [3]. One component of interpersonal skill effectiveness frequently associated with a successful therapeutic relationship is EMPATHY

### 1.1 Emotional Empathy

Emotional Empathy is understood as the ability to identify with other people, to share their emotional experiences and to react intuitively to their affective states.

### 1.2 Cognitive Empathy

Cognitive Empathy denotes the ability to grasp the mental perspective of others meaning understanding other people’s thoughts and ideas as if they were their own, or in other words to see something from someone else’s point of view - not necessarily including an emotional involvement. Cognitive Empathy overlaps with the term theory of mind, which means the ability to transfer other people’s mental states such as beliefs, intentions or desires to oneself and to understand that others have mental states that are different from one’s own.

### 1.3 Why is Empathy Important?

The Empathy of physicians is generally regarded as important [9]. Being empathetic increases the patient’s satisfaction in the physician-patient relationship [10], it facilitates the diagnostic process in the way that a patient feels more comfortable and gives more details when medical history is taken by an empathetic doctor [8, 11] and furthermore it improves the clinical outcome [12, 13]. These facts clearly illustrate the growing interest in examining Empathy in the field of medicine. In a review on the development of Empathy in medical education [9] an increasing interest in Empathy training in medical schools could also be noticed. Due to these developments, it can be expected that future research on Empathy will make the concept of Empathy more comprehensible and will possibly explore methods to educate empathetic physicians

## II.NEED FOR THE STUDY

Empathy is one of the most important interpersonal skills. It is necessary for the Occupational Therapy students to facilitate a client-centred understanding of patients in order to pursue what are meaningful occupational and therapeutic outcomes for each individual.

Empathy is an important attribute for occupational therapist in establishing rapport and in better understanding their clients. Thus, a survey was carried out to among undergraduate Occupational Therapy students, Department of Occupational Therapy, Sri Ramachandra institute of higher education and research

## III.OBJECTIVES

To determine the level of Empathy among undergraduate Occupational Therapy students.

To compare the level of Empathy among various academic years and gender.

## IV. REVIEW OF LITERATURE

**4.1 Chris Lloyd et al., (1992)** Research has shown that the level of the helper's interpersonal skills bears a direct relationship to the outcome of therapy. In his research he concludes that Interpersonal skills are an essential feature of the skills repertoire that the successful occupational therapist employs on a day-to-day basis in working with both colleagues and clients. Carkhuff's model, which emphasises the core helping dimensions - empathy, respect, genuineness and concreteness - and helper skills, is a useful way of conceptualising the helping relationship. Through focusing on the dimensions and skills advocated by Carkhuff, the quality of the occupational therapist's interpersonal relationships can be greatly enhanced. Implications for occupational therapy practice are fairly extensive but, in general, improved interpersonal skills lead to a better relationship being established with clients, thereby leading to client satisfaction with treatment.

**4.2 Suzanne M. Peloquin et al., (1995)** discusses seven core values are said to undergird the profession of occupational therapy, with empathy serving as a hallmark of one of those values-personal dignity. This inquiry explores the meaning of empathy within a practice that holds occupation at its centre. The literature on empathy in both philosophy and the behavioural sciences yields cogent thoughts about the fullness of empathy and its characteristics actions. The Healing Heart, the biography of a pioneer therapist, Ora Ruggles, shows the manner in which occupational therapists can be empathic in their practice. These reflections and illustrations serve to sharpen the vision of occupational therapists as persons who reach for both the hands and the hearts of others.

**4.3 Margaret Jamieson et al., (2005)** describe the evaluation of an educational initiative promoting student empathy to the lived experience of disability. This study includes Pairs of first-year occupational therapy students visited adults with disabilities who shared their knowledge and experience of living with a disability. Students reflected on their visits in journals, which were later analysed using pattern matching. He Finds Students appeared to appreciate the co-existence of health and disorder and demonstrated a holistic understanding of living with a disability. Little attention was focused on cultural and institutional environments. Students struggled to define the nature of their relationship with their tutors. Practice Implications. The evaluation confirmed our belief that this educational initiative could facilitate student empathy, consistent with critical features of client-centred practice

## V. METHODOLOGY

This study determines the level of Empathy among undergraduate Occupational Therapy student, Department of Occupational Therapy, SRIHER. The methodology adapted for this study is described below.

### 5.1 Design

A cross-sectional study using a paper-based survey of the Toronto Empathy Questionnaire was administered to students.

### 5.2 Sampling Method

Convenience Sampling was adopted in this study

### 5.3 Participants

A cross-sectional study was conducted at Department of Occupational Therapy, Sri Ramachandra Institute of Higher Education and Research (DU) to determine the level of Empathy among undergraduate Occupational Therapy students from first year to fourth year. The total number of participants consisted of 121 Occupational Therapy students of whom 86 were female and 35 were male and the study was conducted for 2 weeks period. Inclusion criteria for the study included all the undergraduate Occupational Therapy student, Department of Occupational Therapy, SRIHER who agreed to participate in the study from first year to fourth year and those who are currently doing intern and who did not agree to take part in the study were excluded.

### 5.4 Instrumentation

This study utilized standardized self-reporting questionnaires: set of demographic questionnaire and Toronto Empathy Questionnaire (TEQ)

The demographic data consist of name, age, gender, DOB and year. The Toronto Empathy Questionnaire (TEQ) was developed by Spreng et al. with proven internal validity and test-retest reliability. The TEQ shows four dimensions: social self-confidence, even-temperedness, sensitivity, and nonconformity. TEQ is a 16-question composite positive (8 questions) and negative (8 questions) scored item with a 5-point Likert type scale: 0 - never, 1 - rarely, 2 - sometimes, 3 - often, and 4 - always. The positively worded items are: 1, 3, 5, 6, 8, 9, 13, 16 and the negatively worded items: 2, 4, 7, 10, 11, 12, 14, 15. A reversed score was used for these negative questions: 0 - always, 1 - often, 2 - sometimes, 3 - rarely, and 4 - never. Obtained results were summed to derive the total score. Scores are summed to derive the total for the Toronto Empathy Questionnaire, which can range from 0 to 64. Males' general score for this measure ranges from 43.46 to 44.45, while females tend to score within the range of 44.62 to 48.93. Gender differences, as measured by this questionnaire are reported as being moderate.

### 5.5 Data Analysis

The excel sheet (MICROSOFT EXCEL 2010) was used for data storage, tabulation and the generation of descriptive statistics. Independent samples t-test and analysis of variance (ANOVA) were used to determine if any differences existed between gender and various academic years. The result is considered statistically significant if the p value is less than 0.05

## V. DATA ANALYSIS

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Table 1: Demographic Analysis

Variables	N%
Gender	
• Male	35 (28%)
• Female	86(72%)
Academic Years	
• First Year	36 (29.6%)
• Second Year	31(26.4%)
• Third Year	31(25.6%)
• Fourth Year	23 (18.4%)
Age Range	Min(17) – Max(23) (19.27),

Table 1 shows that 121 undergraduate Occupational Therapy students were participated in this study; a majority 86 (72%) were females, while the rest 35 (28%) were males with a age range of 17 – 23(19.27), including 36 (29.6%) first year, 31(26.4%) second years year, 31(25.6%) third year, and 23 (18.4%) fourth year students. As shown in figure 1 & 2

Table 2: Level of empathy among undergraduate occupational therapy students

N= 121	Mean	SD
121 undergraduate Occupational Therapy students	45.04	6.09

Table 2 shows that the Overall, students reported an average level of Empathy on the TORONTO EMPATHY QUESTIONAIRE (45.04 7.13)

Table 3: Comparing the level of empathy among gender

Group	Gender	mean	SD	P value
Gender	Male	43.25	5.05	0.02
	Female	45.72	7.78	

Table 3 represent Mean score of Empathy was found to be greater among female students (45.72 7.78) compared to male students (43.25 5.05). Difference between scores among male and female students was found to be statistically significant (p value=0.02). Female students were found to be more empathetic than male students as shown in figure 4

Table 4: Comparing the level of empathy among various academic years

Academic year	mean	SD	P value
First year	44.58	5.56	0.89
Second year	44.93	4.85	
Third year	44.96	8.10	
Fourth year	45.86	5.59	

Table 4 demonstrates, Difference between scores among various academic years was found to be statistically not significant. (p value=0.89) as shown in figure 5

## VII. RESULT AND DISCUSSION

The presence of Empathy in the patient-physician relationship is associated with many positive results for both the physician and the patient. The importance of providing an empathic perspective to students in the core education programs of medical faculties is emphasized.

This study provides a cross-sectional Empathy profile of undergraduate Occupational Therapy students in Department of Occupational Therapy, SRIHER. In this study Empathy level of the students was evaluated with TEQ. The maximum score in the TEQ was 64.

The results demonstrate undergraduate Occupational Therapy students have a average level of Empathy as measured by the TEQ. We found 3 studies conducted using the TEQ in the literature. In the study conducted by Youssef et al in the Caribbean, the mean TEQ score of the students was 47.06±11.65; in the study conducted by Haque et al in Malaysia, the average TEQ score of the students was 45.83±6.03, and in the study conducted by Stefanovic et al in Serbia, the average TEQ score of the students was found to be 45.23±7.02. This may be due to differences in the curricula of medical schools and cultural differences between countries .

In our study it was also found that females are more empathetic than males, which is consistent with international studies. Haque *et al* also identified females to be more empathetic as compared to male students . Bangash *et al* showed females to have higher levels of Empathy as compared to males . Many reasons have been cited for these findings, one being that “Woman seems to differ from man in her greater tenderness and less selfishness. Woman, owing to her maternal instincts, displays these qualities toward her infants in an eminent degree; therefore, it is likely that she would often extend them toward

her fellow-creatures.

In our study it was also found that, there was no significant difference observed in the TEQ scores type of admission and year of study. An important result as it indicates that this Occupational Therapy course is not detrimental to student empathy like a number of other health science and medical courses seem to be. This can be explained by the following quote. "Humans are a cooperative species, capable of altruism and the creation of shared norms that ensure fairness in society. However, individuals with different educational, cultural, economic, or ethnic backgrounds differ in their levels of social investment and endorsement of egalitarian values.

In a review conducted by Batt-Rawden et al, they found that educational interventions such as patient narrative and creative arts, writing, drama, communication skills training, problem-based learning, inter professional skills training, patient interviews, experiential learning, and empathy-focused training can be effective in maintaining and enhancing empathy.

In a study conducted by Fernandez-Olano et al, they found that a 25-h theoretical/practical workshop on communication and empathy improves the level of empathy. In a study conducted by Akdeniz et al, in which sixth-grade students' perception of the educational environment in primary-care centers where empathic physicians practiced was evaluated, students stated that they learned a lot about empathy.

## VIII. LIMITATIONS & RECOMMENDATIONS

### 8.1 Limitations

- The present study was a cross sectional study. The results cannot be generalized.
- Our sample is drawn from one Occupational Therapy college Therefore, our findings may be somewhat limited in generalizability
- Finally, the instruments used were self-reporting scale.

### 8.2 Recommendations

- A longitudinal study of Occupational Therapy students' empathy levels from the first year of enrolment to postgraduate with a large sample size.
- Drawn samples from greater number of Occupational Therapy colleges would be helpful to assess the better findings
- Compare Empathy level of Bachelor of Occupational Therapy with other health professional courses
- There is also a need to investigate the empathy levels of Occupational Therapists working in different client groups such as paediatrics, neurology, mental health, geriatrics and physical disabilities.

## IX. CONCLUSION

The findings from this study suggest that students who are pursuing Bachelor of Occupational Therapy in Sri Ramachandra Institute of Higher Education and Research had the average Empathy level (45.04 6.09). In this current study, respondents possess an average level of Empathy and the level of Empathy was found to be equal among all four academic year and was found to be higher among female students. Educational intervention can be adapted to enhance better understanding of Empathy which in turn improves patient care. In a review conducted by Batt-Rawden et al, they found that educational interventions such as patient narrative and creative arts, writing, drama, communication skills training, problem-based learning,

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