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Original Research Article

Level of undergraduate nursing student's empathy during the four year nursing course in selected nursing colleges of Ernakulam

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ABSTRACT

Introduction: Empathy is the capacity to understand or feel what other person is experiencing from within their frame of reference, which states that, the capacity to place oneself in other's position. Empathy is essential for enhancing the interpersonal relationship, overall life satisfaction and improving the ability to respond well to challenges. An empathetic approach is fundamental to the development of the therapeutic relationship between nurse and patient.

There are several factors which may reduce nursing student's empathy; lack of appropriate role models, negative attitudes towards clinical competencies, long-term presence in the clinical settings, threatening or risky educational environments, heavy educational responsibilities or clinical duties and negative reaction of patients towards the students. This study was aimed to find out the level of undergraduate nursing student's empathy during the four-year nursing course.

Materials and Methods: Descriptive research design was used. A total of 300 undergraduate nursing students were selected using convenient quota sampling methods. Data was collected using Sociodemographic data sheet and Empathy rating scale to find the level of undergraduate nursing student's empathy during the four year nursing course.

Results: The study results revealed that 80.33% of them had good empathy and 19.67% of them had poor empathy and it was also inferred that there was significant association between selected sociodemographic variables such as age in years, year/semester of study, selection of nursing profession and level of empathy during the four-year nursing course, whereas no significant association were found between gender, types of family and level of empathy during the four-year nursing course.

Discussion: Empathy is a major component of an optimal nurse-patient relationship. An empathetic approach is fundamental to the development of the therapeutic relationship between nurse and patient. It was also found that as the year advances nursing students empathy is deteriorating in almost all nursing research studies which revealed that there may be some factors which affect empathy. When students are habituated to face patients with pain, surgeries and other problems they lacks empathy. It may be also due to lack of role models in clinical settings.

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1. Introduction

Empathy is a major component of an optimal nurse-patient relationship. Empathy is an ambiguous concept.

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Despite a lack of consensus about its definition, there are various descriptions or characterizations of the term in the literature. Because of the conceptual ambiguity, empathy has been described as a notion which is difficult to define and hard to measure. Generally, some researchers have described empathy as a cognitive attribute, which means

it predominantly involves understanding another person's concerns. Others have described empathy as an affective or emotional attribute, which implies the feelings of another person's pain and suffering. Yet, there is a third group that views empathy as both effective and cognitive. In recent years, the nursing profession has been impacted by the growth of scientific knowledge and technological advances.¹ An empathetic approach is fundamental to the development of the therapeutic relationship between nurse and patient. The objective of the nurse-patient relationship is to ensure that the needs of the patient are identified and that the necessary therapies and care are provided. In order to identify these needs, nurses should be capable of completely understanding their patient's feeling, opinions and situations. All these requires a high capacity of empathy. A good empathetic capacity in nurses has been linked to greater patient well being and satisfaction, better patient compliance and a decrease in errors and complications. It may be that of empathetic approach can result in a shorter treatment period or reduced demand of resources. On other hand lack of empathy, may interfere negatively with diagnosis, treatment and care processes.

According to Doyle a review on cases presented on the nurses disciplinary tribunal in new South wales suggests that the majority of complaints against nurses is that jurisdiction are the result of lack of empathy.² In addition, empathy is associated with lower levels of burnout among nurses and nursing students and high professional satisfaction. It may be related to the continues communication of students with patients in clinical environments, gaining more autonomy and decreased supervision of clinical faculties in the second and third years of education compared to the first years. A study conducted in Sweden was related to the empathy levels at different stages of undergraduate nursing education and different master's nursing programmes with a sample of 329 participants.³ The study concluded that, students in their sixth semester in an undergraduate nursing programme expressed more empathy than did students in their second semester and master's nursing students. Among the five master's programmes, public-health nursing students expressed the most empathy and intensive-care nursing students the least.³

There are several factors which may reduce nursing student's empathy; lack of appropriate role models, negative attitudes towards clinical competencies, long-term presence in the clinical settings, threatening or risky educational environments, heavy educational responsibilities or clinical duties and negative reaction of patients towards the students.³ Teaching clinical empathy in the educational program of nursing students is absolutely necessary because empathy is an intrinsic characteristics it is associated with increased cognitive dimension through proper education. Therefore it is very important to find the level of undergraduate nursing student's empathy. So investigators

decided to conduct a research to find out the level of undergraduate nursing student's empathy during the four year nursing course.

2. Materials and Methods

A quantitative approach with a descriptive survey design was used. Study was conducted in Ernakulam, Kerala. The participants were 300 undergraduate nursing students from Ernakulam district. Data was collected in the month of October 2023. The study participants were recruited using convenient quota sampling method from three nursing colleges of Ernakulam District, Kerala. Subjects were explained about the purpose of the study and were ensured that data collected would be kept confidential and would be used only for research purpose and the consent for study was obtained.

2.1. Tools for data collection

Tool comprised of Sociodemographic data sheet and Empathy rating scale to find the level of undergraduate nursing student's empathy during the four year nursing course.

2.1.1. Tool 1: Sociodemographic data sheet

Sociodemographic data sheet of the nursing students comprises of age in years, gender, year of study, selection of course, types of family and nature of parenthood.

2.1.2. Tool 2: Empathy rating scale

Empathy rating scale prepared by the investigators to find the level of undergraduate nursing student's empathy during the four year nursing course.

Empathy rating scale is a 25 items instrument specifically developed to measure empathy in the context of nursing student's patient care. Items were answered on a four point rating scale (Strongly disagree-1, Disagree -2, Agree -3, Strongly agree-4). The statements of the rating scale includes three aspects of empathy. Empathy rating scale consist of 13 statements from cognitive empathy, nine statements from emotional empathy and three statements from spiritual empathy. Out of 25 statements, 11 were valued negatively, in order to reduce the effect of acquiescence when responding. The range of possible scores was from 25 to 125 points. The grading of Empathy rating scale include 25-50 very poor; 51-75 as poor; 76-100 as good; 101-125 as excellent). The higher score corresponds with a greater degree of empathy. The validity and reliability of the tools was established. CVI of tool one was 1 and tool two was 0.99 .The stability of the tool one (sociodemographic data sheet) was 100% and found to be reliable. In tool two (Empathy rating scale), the stability was established and the co-efficient of correlation was found to be 0.96, hence the rating scale was found to be reliable.

The techniques used were self reporting and self rating.

2.2. Data collection process

The study was conducted in three selected Nursing colleges of Ernakulam. A formal permission was obtained from the principal of respective colleges. Those who met the inclusion criteria was selected for the study after obtaining the informed consent. Then the investigators administered the tool. The data was collected from 300 students after getting the informed consent using the respective tools, in the class room setting by the researchers.

3. Results

3.1. Sociodemographic data

Table 1: Frequency and percentage distribution of nursing students based on selected sociodemographic variables such as age in year, gender and year/semester of study.

Demographic variables	Frequency (f)	Percentage (%)
Age in years		
18-20	153	51
21-22	143	47.6
23-25	04	01.4
>25	00	00
Gender		
Male	23	07.66
Female	277	92.34
Transgender	00	00
Year/ semester of study		
2 nd semester	75	25
4 th semester	75	25
3 rd year	75	25
4 th year	75	25

nd 2 depicted that, among the participants maximum subjects (51%) were between 18 to 20 years, 47.6% were between 21 to 22 years and a few (1.4%) of them were between 23 to 25 years. Most (92.34%) of the subjects were females and remaining 7.66% were males. Majority of the subjects (66.4%) selected nursing by choice, 22.6% of subjects selected by chance, 6% of subjects by parental pressure and 1% of subjects by peer pressure. Most of the subjects (88.6 %) came from nuclear family and 8.8 % of them from joint family and few (2.6%) of them from extended family. Based on the parenthood majority (93%) of subjects have both parents, 6.33% of them have single parent and few (0.33%) of them have divorced parents.

3.2. Empathy of undergraduate nursing students

It was presented in Table 3 and Table 4.

Table 3 showed that among 300 subjects 80.33% of subjects had good empathy and 19.67% of subjects were

Table 2: Frequency and percentage distribution of nursing students based on selected sociodemographic variables such as selection of nursing profession, type of family and nature of parenthood. N-300

Demographic variables	Frequency (f)	Percentage (%)
Selection of nursing profession		
By choice	199	66.4
By chance	80	26.6
By parental pressure	18	06
By peer pressure	03	01
Type of family		
Nuclear family	266	88.6
Joint family	26	08.8
Extended family	08	02.6
Nature of parenthood		
Single parent	19	6.33
Both parent	279	93
Divorced parent	01	0.33
Seperated parent	00	00

Table 3: Percentage and frequency distribution of subjects based on grading of level of empathy during the four-year undergraduate nursing course. N-300

Grading of Empathy	Frequency	Percentage
Very poor	00	0%
Poor	59	19.67%
Good	241	80.33%
Excellent	00	0%

Table 4: Percentage and frequency distribution of subjects' empathy based on year/ semester of study. N - 300

Empathy grading based on the year/ semester of study	Frequency (f)	Percentage (%)
2nd semester (n-75)		
Very poor	00	0%
Poor	10	13.33%
Good	65	86.67%
Excellent	00	0%
4th semester (n-75)		
Very poor	00	0%
Poor	11	14.67%
Good	64	85.33%
Excellent	00	0%
3rd year (n-75)		
Very poor	00	0%
Poor	25	33.33%
Good	50	66.67%
Excellent	00	0%
4th year (n-75)		
Very poor	00	0%
Poor	13	17.33%
Good	62	82.67%
Excellent	00	0%

Table 5: Association between the selected sociodemographic variables such as age in years, gender, year or semester of study, selection of nursing profession, types of family and level of undergraduate nursing student's empathy during the four year nursing course. N-300

Variables	Empathy		Chi square value	df	p- value
	Good Empathy	Poor Empathy			
Age in years					
18-20	131	22	4.332*	1	0.037402
21-25	112	35			
Gender					
Male	18	05	0.046	1	0.830176
Female	222	55			
Year/semester of study					
2 nd semester	65	10	12.211*	3	0.006694
4 th semester	64	11			
3 rd year	50	25			
4 th year	62	13			
Selection of nursing					
By choice	170	29	7.787*	2	0.020374
By chance	57	23			
By parental and peer pressure	16	05			
Types of family					
Nuclear	211	55	0.670	1	0.413052
Joint and extended family					

*p<0.05

found to have poor empathy. No one had excellent or very poor empathy.

Table 4 showed that among second semester majority of subjects (86.67%) had good empathy and 13.33% had poor empathy. In fourth semester 85.33% of subjects had good empathy and 14.67% of subjects had poor empathy. Meanwhile, 66.67% of subjects from third year had good empathy and 33.33% had poor empathy. Among fourth year 82.67% of subjects had good empathy and 17.33% of subjects had poor empathy. It was found that second semester students had more empathy and third year students had less empathy. It was also found that the empathy level decreased as the subjects advanced in their course.

3.3. Association between selected sociodemographic variables and the level of undergraduate nursing student's empathy during the four year nursing course.

Null hypothesis (H₀):-There is no significant association between the selected sociodemographic variables such as age in years, gender, year or semester of study, selection of nursing profession, types of family, nature of parenthood and the level of undergraduate nursing student's empathy during the four-year nursing course.

It was found that there was significant association between the selected sociodemographic variables such as age in years, year or semester of study, selection of nursing profession and level of empathy during the four-year nursing course. Whereas no significant association was

found between gender, types of family and level of empathy during the four-year nursing course.

4. Discussion

The current study provided information regarding level of empathy during the four year undergraduate nursing course. Among this 80.33% of subjects had good empathy and 19.67% of subjects were found to have poor empathy. Among second semester majority of subjects (86.67%) had good empathy and 13.33% had poor empathy. Whereas in fourth semester 85.33% of subjects had good empathy and 14.67% of subjects had poor empathy. Meanwhile, 66.67% of subjects from third year had good empathy and 33.33% had poor empathy. Among fourth year 82.67% of subjects had good empathy and 17.33% of subjects had poor empathy. Among this subjects second semester students were found to have more empathy and third year students had less empathy. The association between the selected sociodemographic variables such as age in years, gender, year or semester of study, selection of nursing course, types of family and level of undergraduate nursing student's empathy during the four year nursing course inferred that there was significant association between age in years, year or semester of study, selection of nursing course and the level of undergraduate nursing student's empathy during the four year nursing course. This findings were consistent with another study conducted by Rosaria Di Lorenzo related to evaluation of empathy among undergraduate nursing

students in Italy shows that majority of subjects were females (79%) and 21% were males. The mean age of student at first year was 20.2 ± 2.6 (SD), second year was 21.2 ± 2.8 (SD) and third year was 21.1 ± 2.2 (SD). The study concluded that the level of empathy among females were more than males.⁴

A study conducted by Christina Ouzouni, Konstantinos Nakakis to explore nursing students level of empathy as well as related variables influencing empathic ability. Jefferson rating Scale of empathy were used and a sample of 279 nursing students were taken. The study findings shows that females had significantly more empathy than males. The sixth semester students displaying more empathetic ability and the first semester students have the least. Students who had made their own choice to study nursing were found to have higher levels of empathy.⁵

A study conducted by Maryam Sedaghati Kesbakhi and Camelia Rohani to find the changes in the level of nursing students' empathy during four years education. The study was conducted in 122 undergraduate nursing students from the first to the fourth year. The study result shows that the mean score of empathy was 91.8 ± 28.7 . The level of empathy significantly declines in the fourth year of education, compared to the first year ($P < 0.001$). The author concluded that the level of empathy of nursing students significantly declines in the fourth year.⁶

A study conducted by Jakob Håkansson Eklund, Inger K. Holmström, Anna Ollén Lindqvist, Annelie J. Sundler, Jacek Hochwälder, and Lena Marmstål Hammar to compare empathy levels at different stages of undergraduate nursing education and different master's nursing programmes. The result of the study shows that Students in their sixth semester in an undergraduate nursing programme expressed more empathy than did students in their second semester and master's nursing students.³

A study conducted by Jessa George and Manoj Kumar L, Libina Babu to assess empathy among nursing students and its socio Demographic correlation. A sample of 197 nursing students was taken. The result shows that out of 197 subjects 109 (55.4%) were having high empathy meanwhile 89 (41.6%) subjects with medium empathy, 5 (2.5%) subjects with low empathy and only 1 (0.5%) subject with no empathy. The association between empathy and selected socio-demographic variables were computed and found that only age is having significant association with empathy at 0.05 levels.⁷

A study conducted by Elizabeth Fajardo Ramos, Juan Carlos Ferrero Ottero and Robert Utsman Abarca to estimate the levels of empathy in students enrolled in the nursing program. The tool used in this study was the Jefferson Medical Scale of Empathy, The sample size consist of students from the first to the fifth academic year (Course) ($N = 312$, $n = 253$, 81.08% of the population). The study finding shows that the empathy level in the students

were relatively low. Thus the author concludes that there is considerable potential for growth of empathy.⁸

A study conducted by Kaur, Sukhpal; Saini, Sushma; Waia, Indarjit to assess the level of empathy among the nursing students during internship. The study concluded that Mean age \pm standard deviation of the participants was 21.43 ± 0.91 with the range of 20–23 years. There was an increase in the number of participants with high level of empathy from the 23.9% at the beginning to 29.6% at the midway and 28.3% at the end of internship, but the increase was not statistically significant ($P > 0.01$). The mean empathy score, in the beginning, was 50.76 ± 4.2 with the range of 43–60. At the midway of the internship, the score was 52.13 ± 4.62 with the range of 40–60. However, at the end of internship the score was 52.41 ± 4.48 with the range of 40–60. There was no significant change in the empathy level throughout the internship ($F = 1.816$, $P = 0.167$).⁹

A study conducted by Fatma Refaat Ahmed a b, Samah A Shalaby to explore empathy levels and identify factors contributing to empathy perception among nursing students at Sultan Qaboos University (SQU) and Alexandria University (AU). This was a descriptive exploratory correlational study. Study concluded that participating nursing students had moderate levels of empathy (AU: 92.80 ± 19.70 ; SQU: 84.29 ± 15.24). Communication self-efficacy, clinical score, academic level, and preference for the nursing profession were the factors that significantly contributed to empathy levels ($P = 0.000$).¹⁰

A study conducted by Geethu Mathew, Joyal Alias Saji, Bichu P Babu to measure empathy levels among college students aged 18–28 years in Kerala and to find out the factors associated with individual variations in Empathy levels among them. A cross-sectional survey was conducted among 610 college students of both gender. Results were expressed in percentages and proportions. The mean age of the study participants was 21 ± 1.6 years. The mean empathy score and burnout score of study participants were 58 ± 11.9 and 41.03 ± 12.3 , respectively. The empathy score among study participants was found to be significantly associated with age of study participants and burnout. The author concluded that a good prevalence of empathy and humanistic values are found among college students in Kerala.¹¹

A study conducted by Prasanna Guru. E, Gheena. S in 2016 January, Chennai to examine the empathy among students from 4 health disciplines among 1st years and final years. This cross-sectional study examines the self-reported empathy levels of undergraduate students especially among 1st years and final years in four different health sciences disciplines. The sample size were 80 students. The study result shows that among the 20 questions. A higher score indicates the higher or better level of empathy. The mean value for final year students is 46.475 and for first year

students is 44.65. When compared final years have more mean value than first years. So, final year students have better empathy.¹²

A study conducted by Aleda M.H. Chen, Mary E. Kiersma, Kimberly S. Plake et.al in 2015 January related to impact of the Geriatric Medication Game on nursing students' empathy and attitudes toward older adults. The objective of this study was to examine the impact of participation in an aging simulation game on nursing students' empathy and attitudes toward older adults as well as their understanding of patients' experiences in the healthcare system. Quasi-experimental, pretest-posttest design was used in this study. The convenience sample included 58 sophomore-level baccalaureate nursing students. Students played the role of an older adult during a three-hour laboratory aging simulation game, the Geriatric Medication Game (GMG). Students completed the (1) Kiersma–Chen Empathy Scale (KCES, 15 items, 7-point Likert-type), (2) Jefferson Scale of Empathy—Health Professions Students (JSE-HPS, 20 items, 7-point Likert-type), and (3) Aging Simulation Experience Survey (13 items, 7-point Likert-type) pre- and post-game to assess study objectives. Descriptive statistics and paired null t -tests were performed in SPSS v.21.0, as the data were normally distributed. Result of the study shows that students' empathy (N =58) toward older adults significantly improved overall (KCES null p =0.015, JSE-HPS) The study concluded that Students may not be aware of older adults' feelings and experiences prior to experiencing aging-related changes themselves. Simulation activities, such as the GMG, can be a useful mechanism for addressing empathy and caring during student education.¹³

An study conducted by Marianne Carol B Dulay, Joseph Emmanuel A Domingo to explore the factors influencing nursing students' level of empathy. A descriptive-correlational research design was utilized. Data were analysed through SPSS Version 21. A total of 255 nursing students were purposively selected from a tertiary institution in Manila. The study result shows that engaging and efficiency factors positively affect empathy while erratic and encumbering Factors negatively affect empathy. Notably, engaging factors had the most impact among the student nurse's level of empathy. The author concluded that several factors affecting the nursing student's empathy are combination of personal, patient and environmental. Since it was revealed that some factors can cause decrease in empathy among the nursing students, selection of educators who will serve as positive role models should be considered.¹⁴

A study conducted by Manu Goel, Rajkrishna Ravikumar et al to assess the clinical empathy of a cohort of medical students spanning four years of undergraduate study and to identify factors associated with empathy. A cross-sectional study to assess the empathy of undergraduate medical

students at the University College of Medical Sciences and GTB Hospital in Delhi, India, was conducted using the Jefferson Scale of Empathy—Student Version. Demographic data were obtained using a pre-tested, semi-open-ended questionnaire. A sample size of 600 participants were selected and the study concluded that results of the 600 students, 418 participated in the survey (69.7%). The mean empathy score was 96.01 (of a maximum of 140), with a standard deviation of 14.56. The empathy scores decreased from the first to the third semester, plateau at the fifth semester, and rose again in the seventh semester. Empathy was found to be significantly associated with the gender of the participant, with females having higher scores (P<0.001).¹⁵

These study findings were similar to the present study that the subjects who choose the profession by their own choice have more empathy than others. Some findings were contradictory to the present study that second semester were found to have more empathy than other years and third years were found to have less empathy as compared to the fourth year.

4.1. Strength and limitations of the study

The study helped to find level of undergraduate nursing student's empathy. The major limitations of the study was, study subjects were taken only from selected settings which may not be a true representation of the population and also it was self-rating which may not be accurate.

As nursing is a female dominant profession so there was less representation of male subjects.

5. Conclusion

The study was conducted to find the level of undergraduate nursing student's empathy during the four-year nursing course in selected nursing colleges of Ernakulam. A socio demographic data sheet and Empathy rating scale was administered to 300 subjects. The study results showed that 80.33% of subjects had good empathy and 19.67% of subjects were found to have poor empathy. Among these subjects second semester students (86.67%) were found to have more empathy and third year students (33.33%) had less empathy. The association between the selected sociodemographic variables such as age in years, gender, year or semester of study, selection of nursing course, types of family and level of undergraduate nursing student's empathy during the four-year nursing course inferred that there was significant association between age in years, year or semester of study, selection of nursing course and the level of undergraduate nursing student's empathy during the four-year nursing course. It was also found that as the year advances nursing students empathy is deteriorating in almost all nursing research studies which revealed that there may be some factors which affect empathy. When students

are habituated to face patients with pain, surgeries and other problems they lacks empathy. It may be also due to lack of role models in clinical settings. Further study is needed to explore the decline in empathy levels of students as they progress in the course in order to device methods to increase the empathy level as the course progresses. Thus it will enable to create nurses who are more empathetic and compassionate

6. Source of Funding

None

7. Conflict of interest


None.

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