



## A comparative cross-sectional study on the level of empathy between the freshmen to senior undergraduate student nurses

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### ABSTRACT

**Background and Objective:** Appropriate communication is one of the important aspects of nursing profession and it is a challenging task. Empathy plays a major role in therapeutic communication and it helps nurses to understand and provide care to the client. Empathy is an individual's sensitivity to experience the inner feeling of another as if it is one's own and to communicate it, attuned to the feeling of the other person. **Methodology:** The study adopted a comparative cross sectional design. A total of eighty student nurses were enrolled for the study- (20 each from the freshmen to senior undergraduate) in the age group of. **Tools used** were Demographic data sheet and empathy Scale. **Results:** Majority of the student nurses possess above the average level of empathy. High level of Empathy was found high in sophomore (second year). The average level of empathy was more observed among the freshmen. The comparison between the freshmen and senior students showed that the sophomores possessed high level of empathy. Comparatively senior students showed lower empathy than the sophomore and the juniors but higher than the freshman. Whereas, the freshmen were found to have lower empathy than the other three group of students. **Conclusion:** Empathy being an essential helping skill has to be imparted and maintained by the nurses at different levels of their training and career. Therefore, nurse training programs have to incorporate empathy skills training to help them achieve an optimum level of empathy.

**Keywords**— Empathy, Jefferson scale of empathy, Undergraduate student nurses

### 1. INTRODUCTION

As healthcare sector facing huge changes and innovations, it is also equally important to accept the new challenges of considering and showing empathy as a vital sign which can no longer be ignored," (Borden & Pineault (2017)). Patient satisfaction is a growing factor in the evaluation of the hospital care so that the maximum of the hospitals starts to focus on the patient's experience. Patient satisfaction is used as an indicator for measuring the quality of health care. To achieve this, hospitals must establish a culture of empathy and adopt technologies that promote communication and coordinated care. Bhanu Prakash (2017), Borden & Pineault (2017) had stated that Empathy is just as vital as a technology for delivering meaningful care to individuals and ensuring patient adherence and it should be considered as the soul of the health strategy.

When the nurses caring for the patient she should take time to get to know them and their families which build a trust and cooperation of the patient. By considering the needs of patients and their family, friends and loved ones, nurses can make authentic connections that result in better care. Empathy spurs a more authentic response to patient needs and gives nurses a deeper awareness of what is going on with each individual patient.

Empathy skill is reflected in HCAHPS scores, which are helpful in rating the hospitals on the caregiver's communication with patients, keeping them informed and responding to their needs. According to Health Leaders Media's 2013 Industry Survey, over half (54%) of healthcare executives say patient satisfaction is one of their top three priorities. In another survey conducted by McKinsey (2013) on consumer health, participants have marked nurse empathy as a first major factor and a driver of patient satisfaction. In another review made by Medical care among 100 studies, it was found that patient adherence increases by 12 percent when the health providers were properly trained in communication skills.

With patients putting a greater value on empathy than ever before, it is very important for hospitals to understand and consistently track underlying behaviors of the health care providers. Improving communication and care for the patient will bring out the positive outcomes and responsiveness to patient needs.

The growing demand and a wide range of patient's rights in the health care made the equal focus on therapeutic communication skills along with the practical skills. When the empathetical communication is made with the patient it aids in positive patient satisfaction and lower litigation rates.

**2. SUBJECTS AND METHODS**

The present comparative cross-sectional study was conducted among 80 BSC Nursing students comprising of 20 students each from I, II, III and IV years. Simple random sampling technique was used to select the students for the study. The tool used in this study were Section A-Demographic questionnaires comprising 14 questions on their basic details and Section-B - Jefferson Scale of Empathy questionnaire by Hojat, consisting of twenty items. There are ten positive statements and ten negative statements. Minor modifications in the text of a few items were made.” In other items also, the word “physician” was replaced by the word “nurse.” The seven-point scale was also converted into the five-point scale, (i.e., strongly agree, agree, neutral, disagree, strongly disagree) in which students chose items based on the level of their agreement. The items are scored from 1 (strongly disagree) to 5 (strongly agree) for positive items and 1 (strongly agree) to 5 (strongly disagree) for the 10 negative items; scores thus range from five points (higher empathy) and minimum one point (lower empathy). The overall score ranges from 20 to 100, with higher scores signifying higher empathy. Reliability estimation of the Jefferson Scale of Physicians Empathy (for Nursing Students) had been shown that the scale had good internal consistency ( $\alpha=0.78$ ).

**3. RESULTS**

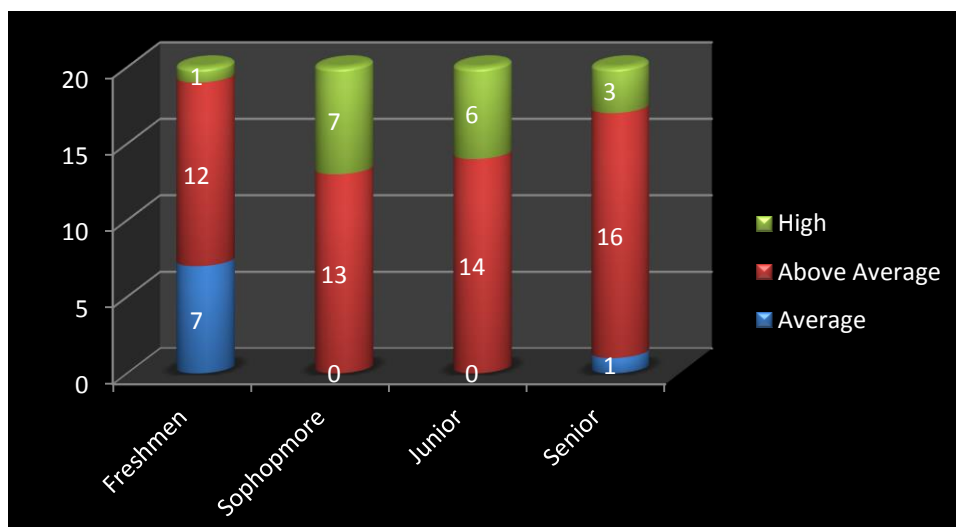
**3.1 Frequency distribution of demographic variables**

**Table 1: Frequency distribution of demographic variables, N=80**

Variables	Categories	N
Age	18-19	28
	20-22	52
Religion	Christian	76
	Hindu	4
Residence	Rural	32
	Urban	48
FamilyType	Nuclear	75
	Joint	5
HealthWorkers	Yes	52
	No	28
ChronicIll	No	77
	Yes	3
AnyIllness	No	79
	Yes	1

In the above table 1 majority 52 samples were under the age of 20 – 21 yrs, whereas, 28 were within 18 -19 age group. Among 80 samples about 76 of the samples were Christians and 4 were Hindus. Majority of 48 students were hailing from the urban area and only 32 of them were hailing from the Rural area. Around 75 students were from a nuclear family and only 5 were living as a joint family. Majority of 52 students family members were working in the health sector and only 28 students don't have any of their family members working in the healthcare field. Among the participant's majority (77) of them do not have anyone suffering from chronic illness in their family except 3 participants. As well, 79 participants do not suffer from any illness except 1 participant.

**3.2 Level of Empathy**



**Fig. 1: Comparison of level of empathy among undergraduate student nurses**

The above figure 1 exhibits the comparison of the level of empathy in which, the majority of the, 16 senior, 14 Junior, 13 sophomores, and 12 freshmen student nurses possess above the average level of empathy. Overall, 55 students have possessed above the average level of empathy.

High level of Empathy was found in, 7 sophomores, 6 junior, 3 senior and 1 freshmen student nurses. Overall, 17 students were found to have a higher level of empathy and 8 students were found to have an average level of empathy.

The average level of empathy was majorly noted among 7 of the freshman and 1 of the senior students whereas no one has scored average level of empathy among sophomores and juniors.

### 3.3 ANOVA for level of empathy

**Table 2: Comparison of level of empathy between freshmen, sophomore, junior and seniors, N=80**

Year	M	Mean	Std. Deviation	F	Sig.
Freshmen	20	63.50	10.32	12.292	0.000
Sophomore	20	76.30	6.94		
Junior	20	76.30	5.43		
Senior	20	73.60	7.54		

The above table 2 exhibits the comparison between the freshmen to senior students. The result shows that overall the sophomores (second year) (M=76.3, SD = 6.94) and the juniors (Third year) (M=76.3, SD = 5.43) were possessing a high level of empathy, comparatively Seniors (Fourth year) students (M=73.6, SD = 7.54) have lower empathy than the Sophomore and the juniors but higher than the freshman. Whereas the Freshman was found to have lower empathy (M=63.5, SD = 10.32) than the other three group of students.

The comparison between the Freshman, Sophomore, Junior, and Seniors showed that there is a significant difference in the empathy level of the student nurses which is evident with the obtained F value =12.29 and p value=0.00.

### 3.4 Association between the level of empathy and demographic variable

**Table 3: Association between the level of empathy and demographic variable, N=80**

		N	Mean	Std. Deviation	t value	p value
<b>Age</b>	18-19	28	66.68	10.72	4.54	0.00* S
	20-22	52	75.52	6.68		
<b>Religion</b>	Christian	76	72.17	9.30	1.07	0.29 NS
	Hindu	4	77.25	8.46		
<b>Residence</b>	Rural	32	67.25	10.90	4.55	0.00* S
	Urban	48	75.88	6.02		
<b>Family Type</b>	Nuclear	75	72.35	9.46	0.29	0.77 NS
	Joint	5	73.60	6.50		
<b>Health Workers</b>	Yes	52	70.58	9.70	2.51	0.01* S
	No	28	75.86	7.44		
<b>Chronic Ill</b>	No	77	72.38	9.40	0.24	0.82 NS
	Yes	3	73.67	6.11		
<b>Any Illness</b>	No	79	72.44	9.34	0.15	0.88 . NS
	Yes	1	71.00			

The above table 3 describes the association between the level of empathy and various demographic variables. Among those variables the age (t=4.54, p= 0.00), residence (t=4.55, p=0.00), and participants with and without health workers in the family (t=2.51, p = 0.01) were found to have a significant association with the level of empathy. Whereas, the other variables namely religion (t=1.07, p = 0.29), family type (t = 0.29, p = 0.77), participants with or without family members with chronic illness (t = 0.24, p= 0.82) and participants with or without any illness (0.15, p = 0.88) were not found to have significant association with the level of empathy among the student nurses.

## 4. DISCUSSION

The comparison of the level of empathy showed that majority of the senior (16), Junior (14), sophomore (13), and freshmen (12) student nurses’ possess above the average level of empathy. Overall, 55 students have possessed above the average level of empathy. High level of Empathy was found in, 7 sophomores, 6 junior, 3 senior and 1 freshmen student nurses. Overall, 17 students were found to have a higher level of empathy and 8 students were found to have an average level of empathy. The average level of empathy was majorly noted among 7 of the freshmen and 1 of the senior students whereas no one has scored average level of empathy among sophomores and juniors.

On the comparison between the freshmen to senior students, the overall result showed that majorly the sophomores (second year) (M=76.3, SD = 6.94) had a higher level of empathy followed by the juniors (Third year) (M=76.3, SD = 5.43) were possessing a high level of empathy. Comparatively, seniors (Fourth year) students (M=73.6, SD = 7.54) have lower empathy than the sophomores and the juniors but higher than the freshman. Whereas the freshman was found to have lower empathy (M=63.5, SD = 10.32) than the other three group of students. The comparison between the Freshman, Sophomore, Junior, and Seniors showed that there is a significant difference in the empathy level of the student nurses which is evident with the obtained F value =12.29 and p value=0.00.

Similarly in a study conducted by Ouzouni and Nakakis (2012) found that overall all the nursing students possessed a moderate degree of empathy. They also have found that the empathy levels increased from the first year to the second year of study and did not significantly change after this.

In a study conducted by Farith González-Martínez<sup>1</sup>, Lesbia Tirado-Amador<sup>2</sup>, Josvir Bueno-Hernández<sup>3</sup>, Braulio ChicaDuque<sup>3</sup>, Víctor Patricio Díaz-Narváez<sup>4,5</sup> (2018) found that the empathy level was high among the third year students and later on it declines until the fifth year. This may be due to the minimal exposure of the students to the clinical postings and patient care (Erazo A, Alonso L, Rivera I, Zamorano A, Díaz V, 2012).

In another study conducted by Dehning et al., (2012) the final year students had higher cognitive empathy than the first years. This finding was supported by Nunes et al., (2011) that the older students have a higher empathy than the younger students. In contrast to this findings, Hojat et al. () had observed that there was a drastic decline in the empathy level from the entry level to the end of the third year of medical practice.

It was found that the majority of the studies had stated that there was a lower level of empathy among the entry-level students. It was justified by Erazo et.al. (2012) & Ward et al (2009) who stated that it may be due to the minimal exposure of the students to the clinical exposure as well the patient care. In contrary, Kaur, Saini & Walia (2018) had stated that when the students were exposed to more patient care and clinical posting they get over saturated and so that leads to decline in the empathy level.

The association between the level of empathy and various demographic variables found that the age ( $t=4.54$ ,  $p=0.00$ ), residence ( $t=4.55$ ,  $p=0.00$ ), and participants with and without health workers in the family ( $t=2.51$ ,  $p=0.01$ ) were found to have a significant association with the level of empathy. Whereas, the other variables namely religion ( $t=1.07$ ,  $p=0.29$ ), family type ( $t=0.29$ ,  $p=0.77$ ), participants with or without family members with chronic illness ( $t=0.24$ ,  $p=0.82$ ) and participants with or without any illness ( $t=0.15$ ,  $p=0.88$ ) were not found to have significant association with the level of empathy among the student nurses.

In the present study, there was no significant association between the empathy and religion. But in another study by Ouzouni and Nakakis (2012), it was found that the variable religion and the level of religiosity had a role in altering the levels of empathy among the student nurses. Especially, Christian nursing students demonstrated statistically significant higher empathy levels than other religions.

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