

The Clinical Caring Skills of Undergraduate Nursing Students; A Longitudinal Study

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Abstract

Introduction: Clinical duties are considered an integral part of nursing education because the nursing students directly interact with patients. To establish the nurse-patient relationship, it is necessary to change one's attitude and actions for professional development, which is referred to as "caring competencies. The aim of the paper was to identify the pre-clinical and post-clinical caring competencies of undergraduate nursing students.

Methodology: A prospective cohort design was used to collect data from 61 students. Data was collected at two points from the nursing students through a simple random sampling technique. The data was collected through a valid and reliable adopted questionnaire that contains 3 categories, each having a seven-point Likert scale at two points in June and September 2022.

Results: In the study, men were higher (86.9%), while the age group of 18 to 21 years was in the majority (52.5%). All of the participants were in their fourth semester of their degree program. The mean score of cognitive competencies of nursing students at the second point was higher (62.5 7.6) than (48.9 8.3), and the mean score of patience at the second point was also higher (47.2 6.9) than at the first point (37.4 8.9). Similarly, the score of courage was also higher (60.1 9.0). The clinical competencies show an association with gender and GPA, but no association with gender. **Conclusion:** Caring competencies play a vital role. The study concluded that those students who attend clinical duties are more skillful and confidence compared to novice nursing students.

Keywords: *Caring Skills; Clinical Duties; Nursing Students; Nurse-Patient Interaction; Preceptorship*

Introduction

The nursing profession is linked with the word "care" because it is a common understanding among the people that nurses demonstrate and practice care. Caring belongs to one of the core elements of nursing that needs academic knowledge and clinical skills [1]. Therefore, the design of nursing includes clinical duties and academic sessions [2]. The role of nursing institutes in maintaining the concept of care is critical because these institutes prepare the future nurses who will be highly qualified and provide quality care [3]. Clinical duties are considered an integral part of nursing education because the nursing students directly interact with patients. To establish the nurse-patient relationship, it is necessary to change one's attitude and actions for professional development, which is referred to as caring competencies [4]. The nursing student and patient interaction is highly affected by the knowledge and skills of the student, because increased knowledge will help the student to establish the right caring behavior and trust toward patients [5]. In clinical areas, clinical competencies remain the focus and center of attention for

the higher authorities in the health care industry.

Nursing is all about caring, which focuses on intrinsic qualities such as respect of others and taking responsibility for one's own actions [6]. Nursing students perceive that the clinical learning environment should be caring and supportive [7]. Human care is an art that can be learned through nursing education and other educational programs. In nursing education, it is considered important that nursing educators assess and teach the importance of care to nursing students in nurse-patient relationships because these students will be the practitioners of care in the future. In the transition of student to professional nurse, lack of skills and caring would be remains a challenge for those students, because quality of care is associated with caring and a sign of worth of an organization [8].

In nursing theory, the concept of caring was first given by Leininger's theory of cultural care. The theory further explains that in the context of health and illness, beliefs and values should be understood to give meaningful services [9].

In 1997, theorist "Jean Watson" contributed to the concept of care by demonstrating that "human cannot be viewed as an object and cannot be isolated from self, others, nature, or a large workforce" [10], and Hildegard Peplau, who developed the interpersonal relations theory. This entire nursing theorist focused their models on caring. In the provision of care process there may be some barriers and challenges so students have to face them. Studies have shown that certain factors that affects caring are stress and burnout as a result of work burden, socio-cultural factors [11], workload of studies among nursing students, fear of students to face patients, and inability to operate biomedical equipment's and clinical procedures [12].

According to Desmond et al. nursing students feel fulfilled, purposeful, thankful, and satisfied with their work in caring cultures, who stress caring in the clinical learning setting [13]. Sanvik et al. also pointed out that in the clinical learning environment, acquiring clinical skills, carrying out tasks, and obtaining learner outcomes are frequently the only priorities [14]. Our study indicates that the competencies increased with the exposure to clinical duties.

The only study investigating the compassion and competencies of nursing students during their clinical skills more than one time in Pakistan was this one. Furthermore the clinical competencies of nursing students developed gradually over a period of time and experience. Therefore the purpose of the study was to identify the caring capabilities of undergraduate nursing student's pre and post from clinical duties.

Methodology

Study design and sample size: The study design of this study was a prospective cohort study to explore the clinical competencies of undergraduate nursing students in a selected institute of district Swat, Khyber pukhtankhwa. A simple random sampling technique was used for data collection from two institutes [group] as it divided all colleges into multiple groups. The prospective cohort design was selected to collect data more than once from these study participants. The sample size was calculated through online calculator using 95% confidence level and 5% margin of error that was 65, but the data of 4 students were incomplete so they were skipped from analysis and the data of 61 students were finalized.

Study participants: The participants of this study were those undergraduate nursing students who were sent to the hospital for clinical duties. In Pakistan, BSN [Bachelor of Sciences in Nursing] is a 4-year program that consists of 8 semesters. The institutes that announced admission in this program are required to be registered with the nursing regulatory body [Pakistan Nursing Council], affiliated with a medical university, and have a formal MOU [Memorandum of understanding] with a hospital [Saidu Group of Teaching Hospitals] for the clinical duties of these students to complete their clinical hours and objectives.

Clinical duties: The nursing institutes have a MOU with the respective hospital through health foundation [provincial department] that are responsible to facilitate the nurs-

ing institutes to conduct their clinical duties in government hospital. Then nursing institutes work in collaboration with affiliated hospital for the distribution of nursing students in different department for different months because every nursing institute have multiple batches of students.

Study Instrument and Data collection

The instrument used for the study was the caring ability inventory [CAI] by Nkongho, which was designed in 2003 [15]. The researcher has already validated the instrument and found a reliability of [chronbach alpha] 0.67 to 0.80. The study instrument contains three main parts: cognitive has 14 items, courage has 13 items, and patience has 10. Each question is scored on a 7-point Likert scale.

Two points were selected for the study, the 1st point data was collected before students joined clinical duties in the last week of June 2022 within the institute, while the 2nd point data was collected at the end of clinical months in the first week of September 2022 after 9 weeks within the institute.

Ethical Consideration

The permission of the study was given by the institutional review board after reviewing proposal, consent and questionnaire. The questionnaire was printed with a consent form for each participant, that clearly mentioned that each student has to be a participant in the study voluntarily and there is no risk for the participants from this study, while there will be no direct benefit received by students, at any time, the student can leave the study, their data will be only used for analysis without mentioning their names with also verbal explanation. The data of 1st point and later of point 2nd was secured in a lock cupboard having only access to the primary investigator. Prior to data collection a written permission were taken from the administration of both institutes for data collection.

Data analysis

Descriptive statistics: Frequencies, percentages was calculated for categorical variables while mean and standard deviation was calculated for continuous variables.

Inferential statistics: To identify the differences between the first and second point paired t-test was used. To identify the association between the caring competencies with gender, age and GPA chi-square test were applied through SPSS version 20.0.

Results

Demographic characteristics of the study

In this study the total participants were n=61. The number of male students were in majority [86.9%] n=53, compared to female participants [13.1%] n=8. In the age group the students aged 18 to 21 years were in majority [52.5%], followed by the age group of 22 to 25 years [45.9%] and 26 years and above was [1.6%]. The total participants of the study were the students of semester 4 and belong to private college. The students live in rural areas were higher [84%] than the students of urban areas [16%] table 1.

Table 1: Demographic data of the participants

Characteristics	Categories	Frequency n=61	Percentage
Gender	Male	53	86.9%
	Female	8	13.1%
Age	18 to 21 years	32	52.5%
	22–25 years	28	45.9%
	26 and above years	71	1.6%
Status of college	Public	61	100%
	Private	0	0
Semester	1 st Semester	61	100%
Living	Urban	10	16%
	Rural	51	84%

Performance of the participants

In the collected data there were in option that what are the last GPA students secure in last semester, then the score of the students GPA were categorized according to the cutoff values that were set like:

GPA above 3.41 were labeled Best performer

GPA between 2.81 to 3.40 Average performers

GPA 2.80 and below poor performer

In all the participants majority of the students were best performer [52.5%], followed by average performer [36.1%] and poor performer [11.5%] table 2.

Table 2: Performance of the participants according to GPA

	Performance	Frequency (n=61)	Percentage
GPA	Best performer	32	52.5%
	Average performer	22	36.1%
	Poor performer	7	11.5%

Caring competencies

The questionnaire consists of three portions therefore the mean and standard deviation of the participants were calculated with the reference of seven point Likert scale of 1st and 2nd point.

Cognitive competency

In the cognitive competencies of students the mean score of 1st point was 48.9 ± 8.3 while the 2nd point score was 62.5 ± 7.6 . The results shows a significance difference [p-0.000] compares to 1st point table 3.

Patience competency

In the patience competencies the 1st point mean and standard deviation score was $[37.4 \pm 8.9]$ and 2nd point score were $[47.2 \pm 6.9]$ that shows a significant difference [p-0.000] compares to 1st point table 3.

Courage competency

In the courage competency the mean and SD score of the participants in point 1st was $[46.7 \pm 1.16]$ while in 2nd point was much higher $[60.1 \pm 9.0]$ compared to point one, and shows a significant difference p-value of 0.000 table 3.

Table 3: Caring competencies of the participants in 1st and 2nd point

Competencies	1 st point	2 nd point	t-value	p-value
Cognitive	48.9 ± 8.3	62.5 ± 7.6	-18.11	0.000
Patience	37.4 ± 8.9	47.2 ± 6.9	-13.89	0.000
Courage	46.7 ± 1.16	60.1 ± 9.0	-11.0	0.000
Total	133.2 ± 26.8	169.9 ± 19.6	-17.1	0.000

Association of caring competencies with demographic variables

The post-clinical caring competencies shows significant difference compared to pre-clinical mean score [table 3]. To identify the association between the caring competencies [pre-clinical and post-clinical] with demographic variable a chi-square Pearson test were applied. The findings shows that the caring competencies has associated with gender and GPA while not associated with age table 4.

Table 4: Association of clinical competencies with demographic variables

Pearson chi-square (sig)	Points	Gender	Age	GPA
	Pre-clinical	0.025	0.673	0.009
	Post-clinical	0.001	0.131	0.004

Discussion

A total of 61 4th semester undergraduate nursing students participated in the current study. The number of male participants was higher [86.9%] compared to female participants [13.1%], the ratio of the participants of our study was different from the study conducted that shows that the number of female participants of the study was [89.33%] higher than male [10.67%] [16]. In this study, all the participants belonged to one class [semester 4], while the findings of a study show a difference from our study that the number of students in the first year was 133, in the second it was 118, and in the third year it was 120 participants [17].

Nursing students who conduct clinical duties have interaction with patients. For new undergraduate nursing students, this experience remains new and strange, but the supervision of nursing educators, supervisors, and preceptor guidance can lead to a high level of skills to practice by the nursing students. With the passage of time, these students learn how to build relationships with patients and know the professional and moral obligation of nurses to provide quality care and perform advocacy for the patient [18]. The findings of our study show that the courage and patience of nursing students increased due to clinical practices that lead toward physical and professional satisfaction. Caring for the patient

and building a relationship with the patient and their family make the nursing students speak for the patient's rights as a symbol of respect for the patient. The results show similarity with the results of a study that advocated for the patient's self-determination and social harmony [19].

In all the 3 categories, there was improvement in the results of the 2nd point. The mean scores of the cognitive, patience, and courage categories were increased in the 2nd point compared to the 1st point. The finding is similar to the study that shows cognitive, patience, and courage increase in the after test compared to the before test [16]. The finding was also similar to the finding of another study [20]. In this study, the students' caring abilities were lower in the first point, which may be due to a longer gap with clinical duties or academic sessions, but in the second point there were improvements in cognitive, patience, and courage. Improvement shows that the nursing educators of those institutes play an important role in advancing the caring abilities of these nursing students. In other studies, through Preceptorship, the caring abilities of nursing students improved except for courage [21]. Courage among nursing students is linked with the experience and sensitivity of the patient. In our study, the courage mean score in the 2nd point was increased from the 1st point, which shows good improvement, but these findings are different from the study [16]. In our study, the students perceived that their clinical stations were changing every month, so they had wide exposure to multiple departments, while the findings of the study suggest that nursing students should be rotated to interact with different patients and environments that will bring courage and confidence among nursing students [22].

In the finding of our study that shows that there was improvement after conducting clinical duties in the caring competencies of nursing students. The results are alike with the study that shows improvement in caring abilities of nursing student's year by year [17]. while the results contradicted by the study results that shows no improvement in caring competencies of nursing students even after the promotion of students from first year to second, and second to third year with an argument that their caring skills are already developed at the end of their first year after enrolling in degree program [23, 24, 25, 26].

Conclusion

The study concluded that caring behavior is one of the vital parts of nursing profession, and most of the times in undergraduate nursing students it remain low. In clinical duties and later a long period of internship of nursing students may improve the caring competencies of nursing students. Nursing instructor of preceptor should guide the nursing students during clinical to develop cognitive skills, patience while caring patient and courage to face and motivate patient and his family.

Declaration

As a primary investigator of this study I declare that this is my original work and not yet submitted to any institute for review or publication.

No conflict of interest

As author and behalf of co-author I declared that there is no conflict of interest.

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