

## The caring competencies of nursing students: Comparing the four and two-year Bachelor of Nursing Programme

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### Abstract

The study was conducted to determine and compare the caring behaviours of nursing students in four-year BS Nursing (Bachelor of Science in nursing) and two-year Post-RN BSN (Registered nurse to Bachelor of Science in Nursing) programmes. A cross-sectional analytical study was conducted in the nursing institutes of KP from July to September 2022. The sample size was 383 calculated by using the Rao soft sample size calculator. through Caring Behaviour Inventory (CBI-24) having six point Likert scale. Descriptive and inferential statistics were calculated through SPSS 20.0.

There were more males, i.e. 60.6%, as compared to female students (39.4%). The overall mean score of caring competencies of Post-RN BS Nursing (Registered nurse to Bachelor of Science in Nursing) was  $27.17 \pm 2.17$  which is higher than  $23.19 \pm 4.1$  for BSN students (Bachelor of Science in nursing). Caring behaviours of overall participants are correlated with gender ( $p=0.001$ ), age ( $p=0.001$ ), and semester ( $p=0.001$ ). The caring competency of Post-RN BS nursing students' are higher than the BS Nursing programme students. That could be due to the clinical exposure of Post-Rn students after completing a three-year Diploma in General Nursing.

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### Introduction

Nursing is both an art and a science; science needs observation and experimentation that are applied within the boundaries of nursing institutes in the form of disease processes, evidence-based practices, and theories. The art of nursing means skills and practice in the form of care,

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understanding patients, communicating with them, and providing love and compassion to the ill subjects.<sup>1</sup> The combination of science and art makes nurses different from other health professionals.<sup>2</sup> In Pakistan, the curriculum for a four-year undergraduate programme was designed by the regulatory authority and higher education commission (HEC) to include both theoretical knowledge and clinical duties.<sup>3</sup> The nursing institutes prepare a workforce that will represent their institutes in the clinical sector or in teaching institutes in future.<sup>4</sup> The clinical skills performed by nursing students are influenced by the quality of education these institutes provide.<sup>5</sup>

Care is the essence of the nursing profession. That is the basis of the nurse-patient- relationship. Nurses practice in a variety of specialties that vary from country to country according to their health service bodies.<sup>6</sup> A few studies have addressed the comparative care provided by nursing students, specially the difference of care among different nursing programmes to highlight the potential of students in care delivery.

The objective of the study is to evaluate the caring behaviours of BS Nursing (Bachelor of Science in nursing) students and Post-RN BS Nursing (Registered nurse to Bachelor of Science in Nursing) students and compare their caring behaviours.

### Methods and Results

The study was conducted in the private and public sector institutes of Khyber Pakhtunkhwa from July 2022 to September 2022. A cross-sectional analytical design was used for the study to compare the caring behaviours of four-year degree programme students and two-year Post-RN BS Nursing (Registered nurse to Bachelor of Science in Nursing) students. The sample size of the study was 400, with a 95% confidence level and 5% margin of error using online Raosoft calculator, through simple random technique, but due to incomplete data 17 students were excluded and 383 were finalised for the study.<sup>7</sup>

The inclusion criteria for the study was students currently enrolled in four-year BSN and two-year Post-Rn (Registered nurse to Bachelor of Science in Nursing) programmes, while students who were on leave or absent were excluded from the study. A caring behaviour inventory (CBI-24)<sup>8</sup> was used

for data collection that contain 24 items with 6 point Likert scale and having Cronbach alpha of 0.96.

Frequencies and percentages for categorical, and mean and standard deviation for continuous variables were calculated. A paired sample *t*-test for difference and Pearson correlation test for association were calculated through SPSS 20. Informed consent was taken from each student in the presence of a faculty member after making it clear that their participation is voluntary, they could leave the study anytime, and confidentiality of each participant will be maintained. The study was approved by the institutional review board.

In the current study, the total number of participants was 383, where the males were in the majority n- 232 (60.6%) compared to n-161 (39.4%) female participants. Of the total, n-231 (60.3%) were BSN students and n-152 (39.6%) were post-Rn students (Registered nurse to Bachelor of Science in Nursing) (Table 1).

Comparison of caring behaviours of the participants: Table 2 shows that the mean score of two-year Post-Rn students were higher than BSN students in all four dimensions, while the overall mean score of two-year Post-RN BSN (Registered nurse to Bachelor of Science in Nursing) was also higher (27.17±2.17) than four-year BSN students (23.19±4.1), which reveals a significant difference (*p*-0.001) (Table 2).

**Table-1:** Demographic data of the participants

| Characteristics       | Total<br>(n= 383)<br>n (%) | BSN students<br>(n=231)<br>n (%) | Post-Rn students<br>(n=152)<br>n (%) |
|-----------------------|----------------------------|----------------------------------|--------------------------------------|
| <b>Gender</b>         |                            |                                  |                                      |
| Male                  | 232 (60.6)                 | 215 (56.1)                       | 17 (7.3)                             |
| Female                | 151 (39.4)                 | 16 (4.1)                         | 135 (35.2)                           |
| <b>Age (years)</b>    |                            |                                  |                                      |
| 18 -21                | 113 (29.5)                 | 112 (48.4)                       | 1                                    |
| 22 – 25               | 168 (43.8)                 | 116 (50.2)                       | 52                                   |
| 26 – 30               | 64 (16.7)                  | 3 (1.2)                          | 61                                   |
| ≥ 31                  | 38 (9.9)                   | 0                                | 38                                   |
| <b>College status</b> |                            |                                  |                                      |
| Private               | 225 (58.7)                 | 196 (51.2)                       | 29 (7.6)                             |
| Public                | 158 (41.3)                 | 35 (9.1)                         | 123 (32.1)                           |
| <b>Living in</b>      |                            |                                  |                                      |
| Urban                 | 158 (41.3)                 | 72 (18.8)                        | 86 (22.2)                            |
| Rural                 | 225 (58.7)                 | 159 (41.5)                       | 66 (17.2)                            |
| <b>Semester</b>       |                            |                                  |                                      |
| 1st semester          | 75 (19.6)                  | 0                                | 75 (19.6)                            |
| 2nd semester          | 111 (29)                   | 48 (12.5)                        | 63 (16.4)                            |
| 3rd semester          | 0                          | 0                                | 0                                    |
| 4th semester          | 106 (27.7)                 | 92 (24)                          | 14 (3.7)                             |
| 5th semester          | 9 (2.3)                    | 9 (2.3)                          | 0                                    |
| 6th semester          | 54 (14.1)                  | 54 (14.1)                        | 0                                    |
| 7th semester          | 7 (1.8)                    | 7 (1.8)                          | 0                                    |
| 8th semester          | 21 (5.5)                   | 21 (5.5)                         | 0                                    |

**Table-2:** Caring behaviours comparison.

| Caring dimensions    | BSN         | Post-Rn      | t-value | p-value |
|----------------------|-------------|--------------|---------|---------|
| Assurance            | 3.96 ± 0.7  | 4.6 ± 0.4    | -9.2    | 0.000   |
| Knowledge and skills | 3.94 ± 0.9  | 4.5 ± 0.4    | -7.7    | 0.000   |
| Respectful           | 3.77 ± 0.8  | 4.49 ± 0.4   | -9.0    | 0.000   |
| Connectedness        | 3.68 ± 0.9  | 4.28 ± 0.7   | -6.1    | 0.000   |
| Overall              | 23.19 ± 4.1 | 27.17 ± 2.17 | -10.19  | 0.000   |

**Table 2a. Correlation of Caring behaviours**

|          | BSN   | Post-Rn | Overall |
|----------|-------|---------|---------|
| Gender   | 0.39  | 0.23    | 0.000   |
| Age      | 0.053 | 0.006   | 0.000   |
| Semester | 0.003 | 0.11    | 0.000   |

Correlation of caring behaviours with demographic variables: Table 2a, shows that overall caring behaviours are correlated with selected age, gender, and semester.

## Discussion

In this study, the mean score of two-year post-Rn students (Registered nurse to Bachelor of Science in Nursing) was higher, i.e. 27.17±2.17, than the mean score of four-year BSN students (Bachelor of Science in nursing) which was 23.19±4.1. The result is similar to a study which shows that the five-year advanced associated degree (AND) caring behaviours are better than the students of four-year BSN.<sup>9</sup> Another study showed that the mean score of caring increased with advancement from one class to another, like the mean score of first year was 4.82±0.5, which increased to 5.12±0.6 in second year, and 5.26±0.5 in third year.<sup>10</sup>

In the current study, the mean score of "assurance" remained higher 4.6± 0.4 in two-year post-RN students as well the score of four-year BSN students (Bachelor of Science in nursing) 3.96±0.7. The findings are in agreement that shows mean score of "being with" have good score of 5.02±0.7 compared to other dimensions.<sup>10</sup>

The mean score of knowledge and skills/ competency of caring behaviours of the students of four-year BSN (Bachelor of Science in nursing) was 3.94±0.9 and 4.5±0.4 for two-year post-RN students (Registered nurse to Bachelor of Science in Nursing). The findings are similar to a study that reveals that the implementation of competencies is part of students' skills from the beginning without change.<sup>10</sup>

In this study, the mean score of four-year BSN (Bachelor of Science in nursing) was lower 3.77±0.8 in respectful domain than post-RN students (Registered nurse to Bachelor of Science in Nursing) i.e. 4.49±0.4 due to their clinical exposure. Findings are in line with a study that shows nursing students listen to patients, maintain their privacy, and involve them in their care.<sup>11</sup> Another study also

showed similar findings that focussed on the respect and dignity of the patients.<sup>10</sup>

The connectedness entail providing effective clinical care to patients. The mean score of connectedness among the four-year BSN (Bachelor of Science in nursing) was  $3.68 \pm 0.9$  while the post-Rn students (Registered nurse to Bachelor of Science in Nursing) mean score was  $4.28 \pm 0.7$ . The findings are in line with a study showing that "knowing the patient" is most frequently assessed.<sup>9</sup>

### Conclusion

The study concluded that caring behaviours are one of the most important skills of nursing professionals. The caring competency of two-year Post-Rn students (Registered nurse to Bachelor of Science in Nursing) is higher compared to the four-year BSN (Bachelor of Science in nursing) programme. That could be because of the clinical exposure of Post-Rn (Registered nurse to Bachelor of Science in Nursing) students after completing a three-year diploma in nursing.

**Limitation:** The data was collected at one point, so for deep analysis cohort study would be appropriate.

**Recommendation:** Further studies are required to elaborate the impact and effect of care therefore:

A longitudinal study is required to identify the intensity of care in different areas.

A qualitative based study is required for the deep description of students and their challenges.

A comparative study is also required to draw a comparison between male and female students.

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#### Author Contribution:

AS: Design and concept.  
SK: Supervision and review.  
NN: Data analysis.  
SK: Drafting the article  
SU: Data collection

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