

The Caring Competencies of Nursing Students: Comparing Post-RN BS Nursing Students and Generic BS-Nursing Program Students

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Abstract
Background: Nursing is both an art and a science: the nursing art means skills and practice in the form of caring towards patients, understanding patients’ pain, and communicating with them when necessary, and providing love and compassion to ill subjects. Methods and Material: The study was conducted in private and public sector institutes of Sindh from 2nd November 2024 to 15th January 2026. A cross-sectional analytical study design was used to compare caring behaviors between Generic BS Nursing (four-year degree program) and two-year POST RN BS Nursing students. The

sample size was calculated with Open-EPI software using a 95% confidence interval and 5% margin of error, resulting in a final sample size of **n=385**. The study included 385 participants. Of these, **212 (55%)** were males, and **173 (45%)** were female students. Among the participants, 147 (38%) were enrolled in the Post RN nursing program. Of these, 88 (59.8%) were male, and 59 (40.15%) were female. Furthermore, 238 (62%) were enrolled as generic students, of whom 148 (62.18%) were male, and 90 (37.81%) were female (**Table 01**). **Conclusion:** "The study's findings indicate that Post-RN BS Nursing Students exhibited higher caring competencies compared to their Generic BS-Nursing Program counterparts, suggesting that prior nursing experience and exposure to real-world clinical settings may play a significant role in enhancing empathetic and caring abilities in nursing practice.

Introduction

Nursing is both an art and a science: the nursing art means skills and practice in the form of caring towards patients, understanding patients' pain, and communicating with them when necessary, and providing love and compassion to ill subjects. Moreover, science needs experimentation and observations that are applied within the boundaries of nursing colleges, in the form of disease processes, evidence-based practices, and theories. Moreover, the art and science make nurses different from other professionals. The curriculum of generic BS nursing (04years) and post RN BS Nursing (02 years) is being designed by the regulatory authority, Pakistan Nursing Council (PNC), along with the Higher Education Commission (HEC), and the curriculum is based on both theoretical knowledge and clinical practice. Moreover, the clinical demonstration performed by the students is influenced by the quality of education that is provided by the institution.

The nursing profession is based on the essence of caring, and caring is based on the nurse-patient relationship. But according to different health country services, the practice of nurses varies from country to country.

There are a few studies regarding the comparison of care between the generic and post RN students of the nursing discipline. So the researcher decided to find out the care comparison between different nursing students.

Methods and Material

The study was conducted in private and public sector institutes of Sindh from 2nd November 2024 to 15th January 2026. A cross-sectional analytical study design was used to compare caring behaviors between Generic BS Nursing (four-year degree program) and two-year POST RN BS Nursing students. The sample size was calculated with Open-EPI software using a 95% confidence interval and 5% margin of error, resulting in a final sample size of **n=385**. To select participants, a simple random sampling technique was applied to students meeting the inclusion criteria in both degree programs during the data collection period. Students eligible for inclusion were those enrolled in either the four-year or two-year degree program. Students on leave or who declined participation were excluded. For data collection, the Caring Behavior Inventory (CBI-24), consisting of 24 items rated on a 6-point Likert scale, was used. The Cronbach alpha for this tool in the study was 0.96. Informed consent forms were distributed to participants, explicitly stating the anonymity and confidentiality measures. Data collection commenced after institutional head approval.

Results

After collecting the data, the study's results were calculated. Frequencies and percentages were used for categorical data, while the mean and standard deviation were calculated for continuous variables. The association between variables was assessed using a paired-sample t-test in SPSS V.26. The study included 385 participants. Of these, **212 (55%)** were males, and **173 (45%)** were female students. Among the participants, 147 (38%) were enrolled in the Post RN nursing program. Of these, 88 (59.8%) were male, and 59 (40.15%) were female. Furthermore, 238 (62%) were enrolled as generic students, of whom 148 (62.18%) were male, and 90 (37.81%) were female (*Table 01*).

In terms of age distribution, among all participants, 154 (40%) were aged 18-21, and 196 (51%) were aged 21-30, while only 9% were older than 30. Within the Post RN BS Nursing group, most students (65%) were older than 30, with 30 (29.4%) aged 21-30, and 21 (14.28%) aged 18-21. For the generic program, most candidates (155, 65.12%) were aged 21-30, with 60 (25.2%) aged 18-21, and 23 (9.66%) older than 30.

Additionally, of the 385 participants, 180 (46.75%) were enrolled in private colleges and 205 (53.24%) in public colleges. Focusing on the Post RN-BS students, 95 (64.6%) were in private colleges and 52 (35.3%) in public. Similarly, for generic students, 110 (46.2%) attended private colleges and 128 (53.7%) attended public colleges (*Table 01*).

In addition to it, the (*table 02*) shows the comparison of caring behavior dimensions of the participants, the *table 02* also shows that the mean score of Post-RN BS Nursing students (27.52 ± 1.89) regarding caring dimension were high as compared to generic BS Nursing Students (22.84 ± 3.6), which reveals a significant difference ($p-0.000*$). Moreover, the (table 03) shows significant difference between the gender, and age with caring behavior with ($p-0.001*$) and ($p-0.003*$) respectively.

Table 01:

Characteristic	Total	Percentage	Post-RN Students	Generic Students
Gender	n=385	100%	n=147(38%)	n=238(62%)
Male	n=212	55%	n=88(59.8%)	n=148(62.18%)
Female	n=173	45%	n=59(40.15)	n=90(37.81%)
Age				
18-21	n=154	(40%)	n=21(14.28%)	n=60(25.2%)
21-30	n=196	(51%)	n=30(29.4%)	n=155(65.12%)
>30	n=35	(9%)	n=96(65%)	n=23(9.66%)
College Status				
Private	n=180	(46.75%)	n=95(64.6%)	n=110(46.2%)
Public	n=205	(53.24%)	n=52(35.37%)	n=128(53.7%)

Table 02: *Caring Dimension between Post RN BS Nursing & Generic BS Nursing Students;*

Caring Dimensions	Post RN Students	BSN Students	t-value	p-value
1. Assurance	4.3±0.3	3.66±0.6	-9.0	0.000
2. Knowledge and Skills	4.5±0.3	3.94±0.8	-7.6	0.000
3. Respectful	4.46±0.3	3.74±0.6	-8.9	0.000
4 Connectedness	4.26±0.6	3.66±0.8	-6.0	0.000

5. Overall	(27.52±1.89)	(22.84±3.6)	-10.15	0.000
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Table 03: *Correlation of Caring Behavior with Demographic Variables*

	BSN	Post-RN BS Nursing	<i>p-value</i>
Gender	0.39	0.23	0.001*
Age	0.05	0.003	0.003*

There was significant difference between the genders, age with caring behavior among participants.

Discussion

In this study, according to the demographic variable, the male participants were higher than the female participants, so the results of the study are correlated to the results of study⁸ in which the male participants were also higher than the female participants. In contrast to the result of college status, in this study, the enrolled students were higher in public institutions (n=205), as compared to private institutions (n=180). Which is in contrast to the result of the study⁸ in which the private enrolled students were (58.7%), and the private were (41.3%). In this study, the mean score of Post-RN BS Nursing (27.52±1.89) was higher than the mean score of generic BS Nursing (22.84±3.6). So the results of this study are similar to the study⁹, in which the mean score of advance associated degree (AND) was higher than that of the students of the generic BS program.

Moreover, in the study, the 'assurance' domain of Post-RN BS Nursing program (4.3±0.3) was also higher as compared to the generic BS nursing program students; these findings are in alignment with the study¹⁰, in which the 'being with' domain had a greater score than the other domains of caring behavior. The mean score of knowledge and skills/competency of caring behavior. The mean score of knowledge and skills of Post RN BS Nursing students was (4.5±0.3), and the mean score of generic BS Nursing students was (3.94±0.8), so these study finding are similar to the study¹⁰, in which the implementation of caring competencies is a part students' skills which develops from the beginning without the change.

Conclusion

"The study's findings indicate that Post-RN BS Nursing Students exhibited higher caring competencies compared to their Generic BS-Nursing Program counterparts, suggesting

that prior nursing experience and exposure to real-world clinical settings may play a significant role in enhancing empathetic and caring abilities in nursing practice. This disparity could be attributed to the fact that Post-RN students have already been immersed in the healthcare environment, interacting with patients, and developing essential skills that foster a deeper understanding of patient needs and concerns. As a result, their prior experience may have contributed to a more profound appreciation for the importance of caring in nursing, leading to higher caring competencies. These findings have implications for nursing education, highlighting the value of incorporating experiential learning opportunities and emphasizing the development of caring competencies in nursing curricula.

Limitation of Study:

1. **Cross-sectional design:** The study's cross-sectional design only captures a snapshot of the students' caring competencies at a single point in time, rather than tracking changes over time.
2. **Lack of control for confounding variables:** The study might not have accounted for other factors that could influence caring competencies, such as age, work experience, or personal characteristics.

Recommendation for further Studies:

"Future research should consider:

1. **Longitudinal studies:** Tracking students' caring competencies over time to explore how they evolve throughout their nursing education.
2. **Multi-institutional studies:** Expanding the study to include multiple institutions and diverse student populations.
3. **Qualitative explorations:** Using interviews or focus groups to gain deeper insights into the factors influencing caring competencies in nursing students.
4. **Intervention studies:** Developing and testing interventions aimed at enhancing caring competencies in nursing students.
5. **Comparative studies:** Exploring caring competencies across different nursing programs (e.g., master's entry) and specialties (e.g., pediatrics, gerontology).
6. **Investigating influencing factors:** Examining the impact of factors like emotional intelligence, empathy training, and clinical experiences on caring competencies.

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AS. Manuscript Writing

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SK. Data Collection

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