

ORIGINAL ARTICLE

Investigating the Caring Behaviors of Undergraduate Nursing Students: A Cross-Sectional Study

AFROOZ BIBI¹, MUHAMMAD NAJEEB KHAN², HASEENA³, NASIR ANWAR⁴, AMIR SULTAN⁵^{1,5}Nursing Department Saidu Group of Teaching Hospital, Swat²Principal: The Health Care Institute of Nursing Peshawar³Nursing lecturer and Year Coordinator at The Health care Institute of Nursing Peshawar.⁴Principal National College of Nursing, SwatCorrespondence to Amir Sultan, Email: amirsultan204@gmail.com

ABSTRACT

Background: Caring is a state of "feeling and demonstrating concern and empathy for others, showing or having compassion". Care is practiced by nurses in clinical settings, so clinical education is an essential and integral part of nursing education.

Aim: To identify the caring behaviors of undergraduate nursing students of KPK.

Methodology: The design was cross-sectional descriptive conducted in the private and public sector nursing institutes of KPK from August 2022 to September 2022. The sample size was 259 using simple random sampling, while the instrument used was a caring behavior inventory (CBI-24) having a Chronbach alpha of 0.96. Mean and standard deviation was calculated for continuous variables while the chi-square test was applied for the association between demographic variables and caring behaviors through SPSS 20.

Results: The finding reveal that males were in the majority (86.9%) compared to female students (13.1%). The overall mean score of assurance was higher 39.5 ± 7.6 , followed by respecting 22 ± 4.8 , while the knowledge and skills mean score was 19.3 ± 4.7 , and connectedness 10.8 ± 3.12 . The overall caring behaviors of females were 95 ± 4 higher than male 91.3 ± 1.7 . The students of 8th semester caring behaviors were 98.7 ± 1.5 higher than other semesters mean score.

Implications: The study will help the nursing institutes and nursing instructor that how nursing students perceived, barriers in caring and how to improve the caring behaviors of undergraduate nursing students in clinical settings.

Conclusions: Our study suggests that caring behaviors are perceived by students from the 1st semester of the nursing program. The caring behaviors of the students were significantly associated with gender and semester.

Keywords: Care, nursing students, clinical duties, caring skills

INTRODUCTION

Florence Nightingale was the founder of modern nursing, and with the passage of time, the philosophical and moral views of nursing are interconnected with care, and the core component of nursing. The concept of care in nursing comes from the major contributions of nursing theorists like Jean Watson's theory of human care¹, and Leininger's theory of cultural care². The word "caring" means a state of "feeling and demonstrating concern and empathy for others, showing or having compassion"³. Furthermore, caring is noticed as a set of behaviors, including knowledge, attitudes, and skills, that are displayed during the process and context of nurse-patient interactions⁴.

The nursing theorist, Jean Watson, explained that nursing's mission is to help people achieve greater mental, physical, and spiritual balance. Care measures are used to achieve their goal⁵. The concept of Leininger is different from Watson's. According to Leininger, "Comfort, compassion, interest, coping, empathy, facilitation, helping behaviors, love, nutrition, strengthening, protective, and inspiring behaviors; sharing, helping, supportive, sensitivity, touch, and trust" are all examples of caring behaviors^{6,7}.

Nursing is a profession in which one spends most of their time interacting with patients, so providing quality care and satisfying patients is the primary goal of every healthcare setting to achieve a better outcome. It is difficult to train nursing students to be compassionate nurses; academics continue to debate whether caring is a trait or something that can be taught, as well as what it means and how it is defined⁸. The nursing students step by step enter into the clinical setting as they are preparing for their career, so providing quality care to the students depends on the well-being and mental capacity of the students⁹. Care is practiced by nurses and nursing students in clinical settings, so clinical education is an important and integral part of nursing education. Therefore, the nursing institutes prepare students for these challenges¹⁰. Published studies where examined and caring behaviors of nursing students are addressed in limited studies are ignored in the context of Pakistan.

The aim of this study is to identify the caring behaviors of

Received on 05-10-2022

Accepted on 06-12-2022

nursing students in Khyber pukhtankhwa Pakistan to fulfill research gap.

METHODOLOGY

A descriptive cross-sectional was used for the current study that was conducted from August 2022 to September 2022. The sample size of the study was 360 through 95% confidence level, 5% margin of error and 50% prevalence through random simple sampling. The population of the study was undergraduate nursing students enrolled in any registered nursing colleges in Khyber Pukhtankhwa. The instrument used for data collection was *caring inventory* that contained four dimensions and 24 items with a 0 to 5 Likert scale. The instrument was validated and had a reliability of 0.96. A mean and standard deviation were calculated for continuous variables, while a chi-square test was applied for the associated caring behaviors with demographic variables. The study was approved by the institutional review board, while permission was taken from each institute for data collection. The aim and objective of the study were explained to students, and after voluntarily participating as a participant in this study, they were included.

RESULTS

Table 1: Demographic data of the participants (n=259)

Characteristics	Categories	Frequency	Percentage
Gender	Male	225	86.9%
	Female	34	13.1%
Age	18 to 21 years	120	46.3%
	22–25 years	135	52.1%
	26 and above	4	1.6%
Institute Status	Public college	38	14.7%
	Private college	221	85.3%
Semester of BSN Program	2 nd semester	55	21.2%
	4 th semester	103	39.8%
	5 th semester	12	4.6%
	6 th semester	56	21.6%

	7 th semester	8	3.1
	8 th semester	25	9.7%
Living in	Urban	81	31.3%
	Rural	178	68.7%

Demographic characteristics of the participants: In the current study, the number of male participants was in the majority (86.9%) compared to female participants (13.1%), while the age group of 22–25 years was higher than 18–21 years (46.3%), and 26 and above (1.6%) (Table 1).

Caring behaviors of nursing students: The responses of the participants towards the questionnaire were recorded using a six-point Likert scale. The highest mean score in Assurance/being was "giving treatment and medication on time to patient" (A7), while the highest mean score in Knowledge and skills/doing was for the

competency category "listening patient" (K4). In the respectful/responding to individual needs dimension, "supporting the patient" (R1) has a high mean score, while in the last dimension of connectedness/providing effective care, "including the patient in care" (C3) has the highest mean score (see table 2).

Overall score of caring behaviors: Table 3 shows the mean and standard deviation score of caring behaviors regarding gender, age and semester.

Association of Caring behaviors with demographic variables: A chi-square test was applied to these categorical variables, and it shows that gender and semester is significantly associated, while age is not associated with caring behaviors (Table 4).

Table 2: Caring behaviors of the participants

	0 Never	1 Rarely	2 Sometime	3 Often	4 Very often	5 Always	Mean
Assurance / Being with							
A1	6 (2.3%)	28 (10.8%)	12 (4.6%)	100 (38.6%)	25 (9.7%)	88 (34%)	3.4
A2	0 (0%)	12 (4.6%)	5 (1.9%)	84 (32.4%)	57 (22%)	101 (39%)	3.8
A3	14 (5.4%)	20 (7.7%)	14 (5.4%)	74 (28.6%)	41 (15.8%)	96 (37.1%)	3.5
A4	6 (2.3%)	19 (7.3%)	8 (3.1%)	38 (14.7%)	53 (20.5%)	135 (52.1%)	4
A5	1 (0.4%)	9 (3.5%)	1 (0.4%)	34 (13.1%)	44 (17%)	170 (65.6%)	4.3
A6	9 (3.5%)	10 (3.9%)	13 (5%)	69 (26.6%)	52 (20.1%)	106 (40.9%)	3.7
A7	2 (0.8%)	11 (4.2%)	2 (0.8%)	26 (10%)	24 (9.3%)	194 (74.9%)	4.4
A8	2 (0.8%)	10 (3.9%)	3 (1.2%)	59 (22.8%)	63 (24.3%)	122 (47.1%)	4.0
A9	5 (1.9%)	16 (6.2%)	10 (3.9%)	60 (23.2%)	38 (14.7%)	130 (50.2%)	3.9
A10	3 (1.2%)	10 (3.9%)	9 (3.5%)	53 (20.5%)	52 (20.1%)	132 (51%)	4.0
Knowledge and skills / Doing with competency							
K1	19 (7.3%)	13 (5%)	5 (1.9%)	59 (22.8%)	46 (17.8%)	117 (45.2%)	3.7
K2	16 (6.3%)	25 (9.8%)	6 (2.3%)	47 (18.4%)	53 (20.7%)	109 (42.6%)	3.6
K3	2 (0.8%)	14 (5.4%)	6 (2.3%)	54 (20.8%)	43 (16.6%)	140 (54.1%)	4.0
K4	5 (1.9%)	5 (1.9%)	15 (5.8%)	37 (14.3%)	33 (12.7%)	164 (63.3%)	4.2
K5	9 (3.5%)	13 (5%)	11 (4.2%)	84 (32.4%)	51 (19.7%)	91 (35.1%)	3.6
Respecting / Responding to individual needs							
R1	2 (0.8%)	15 (5.8%)	9 (3.5%)	48 (18.5%)	42 (16.2%)	143 (55.2%)	4.0
R2	5 (1.9%)	8 (3.1%)	13 (5%)	74 (28.6%)	57 (22%)	102 (39.4%)	3.8
R3	12 (4.6%)	14 (5.4%)	8 (3.1%)	53 (20.5%)	43 (16.6%)	129 (49.8%)	3.8
R4	12 (4.6%)	33 (12.7%)	6 (2.3%)	90 (34.7%)	44 (17%)	74 (28.6%)	3.3
R5	2 (0.8%)	10 (3.9%)	11 (4.3%)	84 (32.6%)	42 (16.3%)	109 (42.2%)	3.8
R6	22 (8.5%)	23 (8.9%)	9 (3.5%)	119 (45.9%)	32 (12.4%)	54 (20.8%)	3.0
Connectedness / Providing effective care							
C1	1 (0.4%)	21 (8.1%)	8 (3.1%)	66 (25.5%)	48 (18.5%)	115 (44.4%)	3.8
C2	42 (16.2%)	22 (8.5%)	7 (2.7%)	66 (25.5%)	50 (19.3%)	72 (27.8%)	3.0
C3	9 (3.5%)	15 (5.8%)	1 (0.4%)	62 (23.9%)	50 (19.3%)	122 (47.1%)	3.9

Table 3: Mean and standard deviation of the participants

Mean and SD	Assurance	Knowledge & skills	Respecting	Connectedness	Overall
Overall	39.5 ± 7.6	19.3 ± 4.7	22 ± 4.8	10.8 ± 3.12	
Male	38.8 ± 7.7	19.5 ± 4.7	21.9 ± 5.2	10.9 ± 3.2	91.3 ± 1.7
Female	44.5 ± 4.5	17.8 ± 4.5	22.3 ± 1.7	10.2 ± 2.16	95 ± 4
18-21	37.8 ± 8.1	19.2 ± 4.9	21.7 ± 5.4	10.6 ± 3.4	89.4 ± 1.9
22-25	40.9 ± 6.9	19.2 ± 4.5	22.1 ± 4.3	10.9 ± 2.8	93.3 ± 1.4
26 and above	46.5 ± 0.70	24 ± 1.4	25.5 ± 3.5	12.5 ± 0.7	1.11 ± 1.4
2 nd semester	37.7 ± 9.4	19.7 ± 4.4	22.0 ± 5.9	11.0 ± 3.7	90.5 ± 2.0
4 th semester	38.7 ± 7.5	18.1 ± 5.1	20.5 ± 4.4	10.3 ± 2.8	87.6 ± 1.5
5 th semester	41.0 ± 5.5	18.0 ± 6.3	21.1 ± 4.8	11.3 ± 4.8	91.6 ± 2.0
6 th semester	41.7 ± 5.9	20.4 ± 3.9	23.8 ± 4.1	11.2 ± 2.6	97.2 ± 1.3
7 th semester	40.3 ± 4.3	19.2 ± 2.7	23.6 ± 3.7	10.2 ± 1.9	93.5 ± 1.08
8 th semester	41.3 ± 7.5	21.4 ± 3.02	24.1 ± 3.8	11.8 ± 2.6	98.7 ± 1.5

Table 4: Chi-square test for Association of the participants with selected variables

	Assurance	Knowledge and skills	Respecting	Connectedness
Gender	0.002	0.000	0.000	0.000
Age	0.243	0.529	0.159	0.210
Semester	0.000	0.000	0.000	0.000

DISCUSSION

A study finding shows that the number of female participants (82.2%) was high compared to male students (17.8%)¹¹. The findings are different from our study, where the number of male participants was higher (86.9%) than female students (13.1%). A

study shows that the 2nd semester mean score was 90.5 ± 2.0, while 4th semester students' scores were 87.6 ± 1.5, then 5th semester students were 91.6 ± 2.0, 6th semester was 97.2 ± 1.3, 7th semester was 93.5 ± 1.08 and 8th semester was 98.7 ± 1.5.

Which shows that caring behaviors are perceived by students from the beginning, so instead of increasing the caring behavior

score of the 4th and 7th semester, it decreases? The findings are similar to those of Watson et al¹² and Ferri et al¹¹. While the findings are different studies that show no changes during the duration of the study^{13,14,15}.

In our study, the overall mean higher score was (39.5±7.6) by assurance/being with, and then respecting/responding to individual needs (22± 4.8). The results are similar to the study of Ferri et al. who found that the higher mean score of the participants was of being with and responding to individual needs¹¹. The mean score of 2nd semester students was 90.5±2.0 while the mean score of caring behaviors in the 8th semester was 98.7±1.5. The findings are similar with the study¹⁶. The findings are different from a study which shows that there is no difference between the scores of the 1st and 3rd year¹⁵.

In this study, the higher mean score in assurance/being in the category was "giving treatment and medication on time to patients." In another study, results showed that "attentive listening" has a higher score¹⁷. In our study, in the second dimension of knowledge and skills/doing with competency, the mean and standard deviation score of "listening patient" were higher. The findings of a study were different from our results that showed "just being available for patients" is most frequent¹⁸. Another study that is also different from our finding that "being patient and tireless with patient" is the most frequent answer¹¹.

Caring is attached to clinical duties, so nursing students learn clinical skills and implement them in clinical practice. In our study, students consider care to have a technical dimension. The findings are similar to the study findings¹², while another study finding is also similar to our results¹⁶.

The findings of our study show that "listening to the patient", giving medication on time to the patient, supporting the patient, including the patient in care, respecting patient dignity, and for support communication is the basic element. The findings of our study are similar to those of other studies^{19, 20}. In the category of respect, the mean score of "supporting the patient" was higher. The results are similar to the findings of this study²¹. As a result of a study, researchers consider communication an important element¹⁷. The overall mean score of female participants was higher (95±4) than that of male participants 91.3±1.7, while the findings are different from the results of a study which shows that the male mean score is higher than female participants⁸. The findings of our study show that caring is significantly associated with gender and semester. These studies found statistically significant differences between the two genders^{22, 23, 24, 25}.

CONCLUSION

Our study suggests that caring behaviors are perceived by students from the 1st semester of nursing program. Furthermore study concluded that the caring behaviors of female students have higher score compared to male participants. The study also found that the caring behaviors of 8th semester students are higher compared to 1st semester students and it doesn't mandatory that these skills will developed in every semester. In last the study concluded that caring behaviors are significantly associated with gender and semester.

Conflict of interest: Nil

REFERENCES

1. Sitzman, K., Watson, J., 2019. Assessing and Measuring Caring in Nursing and Health Sciences: Watson's Caring Science Guide, third ed. Springer, New York, NY.
2. McFarland, M.R., Wehbe-Alamah, H.B., 2014. Leininger's Cultural Care Diversity and University: A World Wide Nursing Theory, third ed. Jones & Bartlett Learning, Burlington, MA.
3. Dalpezzo NK (2009) Nursing care: a concept analysis. Nurs Forum 44:256-64.

4. Leyva, E.W.A., Peralta, A.B., Tejero, L.M.S., Santos, M.A., 2015. Global perspectives of caring: an integrative review. Int. J. Hum. Caring 19 (4), 7–29. <https://doi.org/10.20467/1091-5710-19.4.7>.
5. Watson J. The theory of human caring: Retrospective and prospective. Caring in nursing classics: An essential resource. 2012; 42-237.
6. Pektekin Ç. Hemşirelik Felsefesi. İstanbul: İstanbul Tıp Kitabevi; 2013. (Turkish).
7. Durmaz A. Kültür Bakım Çeşitlilik ve Evrensellik Kuramı. İstanbul: İstanbul Tıp Kitabevi; 2013. (Turkish).
8. Aupia, A., Lee, T.T., Liu, C.Y., Wu, S.V., Mills, M.E., 2018. Caring behavior perceived by nurses, patients and nursing students in Indonesia. J. Prof. Nurs. 34 (4), 314–319. <https://doi.org/10.1016/j.profnurs.2017.11.013>.
9. Li, Y.S., Yu, W.P., Yang, B.H., Liu, C.F., 2016. A comparison of the caring behaviours of nursing students and registered nurses: implications for nursing education. J. Clin. Nurs. 25 (21–22), 3317–3325. <https://doi.org/10.1111/jocn.13397>.
10. Sultan A, Khan S, Bibi A, Jamal H, Rafeeqe S. Attitude of Undergraduate Nursing Students towards Clinical Duties-A cross sectional study. Pakistan Journal of Medical & Health Sciences. 2022 Jul 30;16(07):139-.
11. Ferri P, Stifani S, Morotti E, Nuvoletta M, Bonetti L, Rovesti S, Cutino A, Di Lorenzo R. Perceptions of Caring Behavior Among Undergraduate Nursing Students: A Three-Cohort Observational Study. Psychology research and behavior management. 2020;13:1311.
12. Watson R, Deary IJ, Hoogbruin AL. A 35-item version of the Caring Dimensions Inventory (CDI-35): multivariate analysis and application to a longitudinal study involving student nurses. Int J Nurs Stud. 2001;38(5):511–521. doi:10.1016/S0020-7489(00)00107-3.
13. Loke JC, Lee KW, Lee BK, Mohd Noor A. Caring behaviors of student nurses: effects of pre-registration nursing education. Nurse Educ Pract. 2015;15(6):421–429. doi:10.1016/j.nepr.2015.05.005.
14. Zamanzadeh V, Valizadeh L, Azimzadeh R, Aminiae N, Yousefzadeh S. First and fourth-year student's perceptions about importance of nursing care behaviors: socialization toward caring. J Caring Sci. 2014;3(2):93–101.
15. Pajnikihar M, Kocbek P, Musović K, et al. An international crosscultural study of nursing students' perceptions of caring. Nurse Educ Today. 2020;84:104214. doi:10.1016/j.nedt.2019.104214.
16. Labrague, L.J., McEnroe-Petitte, D.M., Papatthanasiou, I.V., Edet, O.B., Arulappan, J., Tsaras, K., 2017. Nursing students' perceptions of their own caring behaviors: a multicountry study. Int. J. Nurs. Knowl. 28 (4), 225–232. <https://doi.org/10.1111/2047-3095.12108>.
17. Guarinoni MG, Dignani L, Motta PC. Caring relationship: a qualitative research through the narratives of the students of the Bachelor of Science in Nursing degree. Prof Infirm. 2019;72 (2):129–134.
18. Schofield R, Allan M, Jewiss T, et al. Knowing self and caring through service learning. Int J Nurs Educ Scholarsh. 2013;10 (1):267–274. doi:10.1515/ijnes-2013-0009.
19. Macaden L, Kyle RG, Medford W, Blundell J, Munoz SA, Webster E. Student nurses' perceptions of dignity in the care of older people. Br J Nurs. 2017;26(5):274. doi:10.12968/bjon.2017.26.5.274.53.
20. Ferri P, Muzzalupo J, Di Lorenzo R. Patients' perception of dignity in an Italian general hospital: a cross-sectional analysis. BMC Health Serv Res. 2015;15:41. doi:10.1186/s12913-015-0704-8.
21. Chan ZCY, Lai CKY. The nurse-patient communication: voices from nursing students. Int J Adolesc Med Health. 2016;29(6). doi:10.1515/ijamh-2016-0023.
22. Trinidad MF, González Pascual JL, García MR. Perception of caring among nursing students: results from a cross-sectional survey. Nurse Educ Today. 2019;83:104196. doi:10.1016/j.nedt.2019.08.014.31.
23. Papastavrou E, Efstathiou G, Tsangari H, et al. A cross-cultural study of the concept of caring through behaviors: patients' and nurses' perspectives in six different EU countries. J Adv Nurs. 2012;68 (5):1026–1037. doi:10.1111/j.1365-2648.2011.05807.x.33.
24. Romero-Martín M, Gómez-Salgado J, Robles-Romero JM, Jiménez-Picón N, Gómez-Urquiza JL, Ponce-Blandón JA. Systematic review of the nature of nursing care described by using the Caring Behaviors Inventory. J Clin Nurs. 2019;28(21–22):3734–3746. doi:10.1111/jocn.15015.34.
25. Fenizia E, Marchetti A, Biagioli V, et al. Psychometric testing of the Caring Behaviors Inventory for nursing students. J Clin Nurs. 2019;28(19–20):3567–3574. doi:10.1111/jocn.14950.36.