

ORIGINAL ARTICLE

NURSING STUDENTS' DESIRE TO CARE FOR GERIATRIC PATIENTS IN LAHORE, PAKISTAN

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ABSTRACT

Background: The rapidly expanding global population of elderly adults poses greater need for health-care services in the elderly. The objectives of this study were to determine nursing students' desire to care for geriatric patients by sex, age groups and marital status in Lahore, Pakistan.

Materials & Methods: This cross-sectional study was done in Lahore School of Nursing, University of Lahore, Pakistan from September 2021-December 2021. Sample of 112 was enrolled. Nursing students' desire to care for geriatric patients was research variable and sex, age groups (19-21 & 22-25 years) and marital status (single & married) were demographic variables. Mean, range, and SD were used to represent 'normal' data, whereas median, Q1, Q3, and IQR were used to explain skewed data with 95%CI. Hypotheses were tested using independent-samples t-test for normal data and one-sample Wilcoxon signed-rank test & Mann-Whitney U test for skewed data.

Results: The observed median score of the sample (3.1667) for nursing students' desire to care for geriatric patients was statistically significantly lower ($p = <0.0001$) than expected (3.5) score. The mean score was similar ($p = .60$) for boys (3.1667) and girls (3.2328). It was higher ($p = .003$) in age group 21-25 (3.3150) than 19-21 years (3.0777). The median score was similar ($p = .182$) for single (3.1667) and married (3.0) nursing students.

Conclusion: In our population, the nursing students' desire to care for geriatric patients was lower than expected. It was similar in boys and girls and in single and married students. It was higher in older than younger age group.

KEY WORDS: Nursing Students; Aged; Empathy; Desire; Population; Marital Status; Adults; Sex; Age Groups; Pakistan.

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1. INTRODUCTION

1.1 Background: In Pakistan and across the world, the population of elderly individuals is rapidly growing. In industrialized countries, the proportion of elderly individuals in the population is growing in conjunction with lower birth rates. With the growing number of older persons, one of the issues facing health-care systems is providing care for them, which necessitates the use of highly experienced and specialized nurses.¹ Older adults require greater health care than other age groups due to physiological changes associated with ageing and a rise in chronic and disabling illnesses.² Although some theoretical approaches of ageing establish the start

of the process of aging from earlier birth, others do not.³ From a chronological standpoint, the age of 65 years signifies the start of ageing.⁴⁻⁵

Poston argues that proportion of the older adults in the overall population of the United States' and Western Europe's will be increased by 21% and 28%, respectively, till 2030.⁶ According to Ashiq and Asad, proportion of the aged in the overall population of Pakistan will be increased by 9.3 percent by 2030.⁷ Considering these figures, it is anticipated that a greater number of elderly people would need medical and societal support. As the front-line personnel in healthcare system, today's nursing students will undoubtedly be caring at the primary and tertiary care levels, including residential and inpatient clinical settings, for an increasing number of geriatric patients. It will be especially true in Pakistan. It is vital to investigate nursing students' desire to deal with elderly individuals in Pakistan. Unfortunately, geriatric care is the least popular option, with several studies indicating that nursing students have unfavorable opinions of care for the elderly patients.⁸⁻⁹

A lack of awareness along with unfavorable attitude towards ageing contributes to the development of

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ageist behavior in nurses, which attributes unjustified preconceptions to elderly patients.¹⁰ Older individuals are stereotyped as fragile, helpless, depressed, and ailing individuals who are intellectually disabled, psychologically and physiologically inert, and difficult to care for.¹¹ A large number of nurses reported having limited knowledge and skills in caring for the elderly.¹² Nurses exhibit hostile views about older people and engage in inadvertent and purposeful ageist activities to varied degrees.¹³ Younger individuals are preferred to be cared for and health expenditures are prioritized. Older adults, for example, are more vulnerable to malignancies than younger generations, yet they are more likely to be dropped from clinical trials.¹⁴

The stigmatizing tendency towards older people has crossed over into the field of gerontological nursing. Students and nurses consider gerontological nursing to be a less appealing viable career than other forms of nursing.¹⁵ Because many nurses are uninterested in pursuing a career in gerontological nursing, older people are even more exposed to cognitive decline and a lower standard of living. That's why, it is necessary to analyze the willingness of nursing as it will be helpful to modify nursing instructive strategies and curriculum planning for enrolled nursing students. It is argued that gender, age, education level, professional experience, kind of hospitals and unit, residing with an elderly adult in the same residence, and curriculum vitae of nurses are all connected with hostile macro aggressions against older persons.¹⁶

1.2 Research Problems (RPs), Knowledge Gaps (KGs): Our four RPs were unawareness of nursing students' desire to care for geriatric patients and the difference by sex, age groups and marital status in Lahore, Pakistan. No relevant studies could be retrieved regarding these RPs. These are our four KGs.

1.3 Research Questions (RQ)

RQ 1: What is the score for nursing students' desire to care for geriatric patients in Lahore, Pakistan?

RQ 2-4: What is the difference of scores for nursing students' desire to care for geriatric patients by sex, age groups and marital status in Lahore, Pakistan?

1.4 Research Objectives (RO)

RO 1: To determine the score for nursing students' desire to care for geriatric patients in Lahore, Pakistan.

RO 2-4: To compare the score of nursing students' desire to care for geriatric patients by sex, age groups and marital status in Lahore, Pakistan.

1.5 Research (Null) Hypotheses

H₀₁: Nursing students' desire to care for geriatric patients score is 3.5 in Lahore, Pakistan. (RO 1)

H₀₂: Nursing students' desire to care for geriatric patients score is same for boys and girls in Lahore, Pakistan. (RO 2)

H₀₃: Nursing students' desire to care for geriatric patients score is same for age group 19-21 and 22-25 years in Lahore, Pakistan. (RO 3)

H₀₄: Nursing students' desire to care for geriatric patients score is same for single and married in Lahore, Pakistan. (RO 4)

1.6 Significance of the study: The elements that influence students' desire to care for the elderly differ among cultures around the world.¹⁷⁻¹⁸ To our knowledge, this is the first study in Pakistan that investigated the nursing students' desire to care for geriatric patients. It will give the baseline data for the concerned stake holders for policy making and also for future research.

2. MATERIAL AND METHODS

2.1 Design, duration, setting & ethical considerations: This cross-sectional study was carried out at Lahore School of Nursing, Faculty of Allied Health & Sciences, The University of Lahore, Lahore, Pakistan from September 2021 to December 2021.

Approval was sought from the Institutional Ethical Committee and its guidelines and standards were followed, and the interests of the study participants were protected. All potential participants were provided with instructions and were informed that their privacy would be respected. Participants were informed that they might leave the research at any moment, for any reason, with no penalties. Finally, individuals who decided to take part were required to sign a consent form that was linked to the survey. There were no personal identifiers in any of the data. Students were not obliged to participate in the study, and completing the surveys had no impact on their results.

2.2 Population, eligibility, sample size & technique: There are 16 nursing schools in Lahore, with an approximate population of 2,492 students in 2nd to 4th year; our specified population/ population of interest. With population count of 2,492, 0.37317 SD for our research variable 'Nursing desire to care for geriatric patients' from our pilot study, 95%CL and 0.07 margin of error, the sample size was calculated 108 by an online calculator.¹⁹ All these 2,492 students were eligible; those who were not available or did not consent were excluded. Students studying in 1st year BScN degree program were excluded, because in Pakistan elderly care-oriented subjects are not part of 1st year curriculum.

With convenience sampling, we selected our school; Lahore School of Nursing with 157 population count of our interest. Twelve students were not available and 13 students did not consent. Questionnaires were distributed to the rest of 132 students. 112

students responded, with response rate of 84.85%. This was our sample.

2.3 Conduct of procedure: The researcher himself distributed the questionnaire manually among the participants at their work places, where geriatric patients were hospitalized and nursing students were training; Surgical Ward, Male Surgical Specialty Ward, Female Surgical Specialty Ward, Medical Wards, Surgical and Medical ICUs, Emergency Ward, and Dialysis ward of University of Lahore Teaching Hospital, Lahore. They were asked to return in 30 minutes and were collected at the spot.

2.4 Data collection plan

2.3.1 Variables: Nursing students' desire to care for geriatric patients was a research variable on ratio (numeric) scale. Sex (boys & girls), age groups (19-21 & 22-25 years) and marital status (single & married) were three demographic/grouping variables on nominal scale.

2.3.2 Elderly Care Awareness Questionnaire (ECAQ): Elderly Care Awareness Questionnaire (ECAQ) was used to collect data for 'nursing students' desire to care for geriatric patients. The ECAQ was developed by Aday and Campbell in 1995 and has been utilized in several studies.²⁰⁻²² It has 12 items; six positive intending to care for geriatric patients, and six negative for not intending to care for geriatric patients. The response was rated on a 5-point Likert scale ranging from 1 to 5 (strongly disagree, disagree, neutral, agree & strongly agree, respectively). The negative items were coded upside down. A data matrix was developed using the Data Editor of IBM SPSS, yielding mean for each participant score; the desire to care score.

Cronbach's alpha values of this questionnaire for

the Turkish and Persian versions were 0.862 and 0.87 respectively.^{20,21} We conducted a Pilot study on 20 participants from our population, showing Cronbach's alpha value of 0.74.

2.4 Data analysis plan

2.4.1 Descriptive statistics & estimation of parameters: Nominal variables were analyzed by count and percentage. Ratio variable was subjected to tests of normality; Skewness, Kurtosis and Shapiro-Wilk tests. Normally distributed data was analyzed by mean, minimum, maximum, range and SD, with 95%CI for mean. Skewed data was analyzed by quartile 2 (median), quartile 1, quartile 3 and interquartile range (Q3-Q1), with 95%CI for median.

2.4.2 Hypotheses testing: H_{01} was verified by one-sample Wilcoxon signed-rank test, H_{02} and H_{03} were verified by independent samples t test each and H_{04} by independent samples Mann Whitney U test. Sample sizes, means/ medians, SDs/IQRs, difference of means/medians, 95%CI of difference of means/medians, test statistics, degree of freedom and significance (p values) are given with interpretation. The data was analyzed by IBM SPSS v.26.0, released 2017 (IBM SPSS Corp., Armonk, NY, USA) and Windows 10 Professional (Microsoft Corp., USA)

3. RESULTS

3.1 Sample demographics: The sample of 112 nursing students included 25 (22.3%) boys & 87 (77.7%) girls and 44 (39.3%) in age group 19-21 years & 68 (60.7%) in age group 22-25 years, and 106 (94.6%) single & six (5.4%) married.

3.2 Normality of data: Three tests were applied to determine the normality of ratio (numeric) data. (Table 3.2)

Table 3.2: Normality of data for nursing students' desire to care for geriatric patients in Lahore, Pakistan

Variable	Group	Skewness Statistic	Kurtosis Statistic	Shapiro-Wilk test			Data distribution
				Statistic	d.f.	p-value	
Overall (full sample)		.074	.949	.974	112	.028	Skewed
Sex	Boys	0.810	0.428	0.929	25	.084	Normal
	Girls	-0.038	0.867	0.977	87	.116	Normal
Age groups	19-21 years	-0.210	2.012	0.959	44	.116	Normal
	22-25 years	0.429	-0.127	0.972	68	.128	Normal
Marital status	Single	0.055	0.952	0.973	106	.028	Skewed
	Married	-1.117	1.821	0.898	6	.360	Normal

3.3 Descriptive statistics & estimation of parameters for normal data: The mean score for nursing students' desire to care for geriatric patients was similar for boys 3.1833 (95%CI, 3.0497-3.3169) and girls 3.2328 (95%CI, 3.1381-3.3274) as their CIs are overlapping. The mean score for nursing students' desire to care for geriatric patients was higher for age group 21-25 years than 19-21 years as per their CIs. (Table 3.3)

3.4 Descriptive statistics & estimation of parameters for skewed data: The median score for nursing students' desire to care for geriatric patients for the sample was 2.9167 (95%CI, 3.0833-3.2500). The median score for nursing students' desire to care for

geriatric patients was similar for single 3.1667 and married 3.00 as per their CIs. (Table 3.4)

3.5 Hypotheses testing

3.5.1 Nursing students' desire to care for geriatric patients (H_{01}): As the distribution of data for desire to care for geriatric patients was skewed, hence a non-parametric one-sample Wilcoxon signed-rank test was used. With p-value < .00001, null hypothesis was rejected, so the observed median score of the sample was statistically significantly lower than the expected median score of the population. In simple words we can say that the desire to care for geriatric patients of our sample was lower than expected. (Table 3.5.1)

Table 3.3: Descriptive statistics & estimation of parameters for normal data for nursing students' desire to care for geriatric patients in Lahore, Pakistan

Variable	Attributes	Sample Statistics					95% CI of Mean	
		Mean	Min.	Max.	Range	SD	Lower	Upper
Sex	Boys	3.1833	2.75	4.00	1.25	0.3236	3.0497	3.3169
	Girls	3.2328	1.83	4.25	2.42	0.4439	3.1381	3.3274
Age groups	19-21 years	3.0777	1.83	4.25	2.42	0.4208	2.9497	3.2056
	22-25 years	3.3150	2.42	4.25	1.83	0.3937	3.2196	3.4103

SD = Standard deviation, CI = Confidence interval

Table 3.4: Descriptive statistics & estimation of parameters for skewed data for nursing students' desire to care for geriatric patients in Lahore, Pakistan

Variables	Groups	Sample Statistics				95%CI of Median	
		Quartile 1 (Q1)	Median (Q2)	Q3	IQR	Lower	Upper
Overall (full sample)		2.9167	3.1667	3.4792	0.5625	3.0833	3.2500
Marital Status	Single	2.9167	3.1667	3.5000	0.5833	3.1250	3.2500
	Married	2.7917	3.0000	3.2708	0.4791	2.6667	3.2917

Q=Quartile, IQR=Inter quartile range (Q3-Q1), CI=Confidence Interval

Table 3.5.1: Nursing students' desire to care for geriatric patients in Lahore, Pakistan

Observed/ Sample median score	Hypothetical/ Population median score (Test value)	Difference of medians	Test statistic	Standard error	Standardized test statistic	p-value
3.1667	3.5	-0.8383	981.00	325.784	-6.022	<.00001
One-Sample Wilcoxon Signed Rank Test, H_{01} rejected at alpha .05						

3.5.2 Nursing students' desire to care for geriatric patients by sex (H_{02}): Nursing students' desire to care for geriatric patients mean score was compared between boys and girls through independent samples t test at alpha .05. As p value was higher than alpha level ($p=.60$), hence H_{02} was proved to be true and accepted, showing statistically no significant difference. It was proved that the score was same for boys and girls in Lahore, Pakistan. (Table 3.5.2)

3.5.3 Nursing students' desire to care for geriatric patients by age groups (H_{03}): Nursing students' desire to care for geriatric patients mean score was compared between the two age groups through independent sample t test at alpha .05. As p value was lower than alpha level ($p=.003$), hence H_{03} was proved to be false and rejected. It proved that the score was not same for the two groups. It was higher in older (22-25 years) than younger age group (19-21 years) in Lahore, Pakistan. (Table 3.5.3)

3.5.4: Nursing students' desire to care for geriatric patients by marital status (H_{04}): Nursing students'

desire to care for geriatric patients median score was compared between single and married through independent samples Mann Whitney U test at alpha .05. As p value was higher than alpha level ($p=.182$), so H_{04} was proved to be true and hence accepted. In nutshell, nursing students' desire to care for geriatric patients score was same for single and married in Lahore, Pakistan. (Table 3.5.4)

4. DISCUSSION

4.1 Nursing students' desire to care for geriatric patients in nursing students (H_{01}): The focus of this research was to look at nursing students' desire to work with geriatric patients. Numerous studies have demonstrated that the more nurses' desire to work with geriatric patients, the higher the standard of care provided which lower the number of nursing mistakes.²³ Our study showed the nursing students' desire to care for geriatric patients was lower than expected. (Table 3.5.1) Accordingly, In Sri Lanka, researchers reported that the nursing student's desire to care for older adults was at a low level.¹⁸

Table 3.5.2: Nursing students' desire to care for geriatric patients by sex in Lahore, Pakistan

Sex	Sample size	Mean	SD	Difference of means	95% CI of difference		t value	d.f.	p-value (2-tailed)
					Lower	Upper			
Boys	25	3.1833	0.3236	-0.0494	-0.2385	0.1397	-0.518	110	.60
Girls	87	3.2328	0.4439	Independent-samples t test			H_{02} accepted at alpha .05		

Table 3.5.3: Nursing students' desire to care for geriatric patients by age groups in Lahore, Pakistan

Age groups (years)	Sample size	Mean	SD	Difference of means	95% CI of difference		t value	d.f.	p-value (2-tailed)
					Lower	Upper			
19-21	44	3.0777	0.4208	-0.2373	-0.3924	-0.0821	-3.032	110	.003
22-25	68	3.3150	0.3937	Independent-samples t Test			H_{03} rejected at alpha .05		

Table 3.5.4: Nursing students' desire to care for geriatric patients by marital status in Lahore, Pakistan

Marital status	Sample size	Median	IQR	Difference of medians	Mann-Whitney U	Wilcoxon W	Z	p-value (2-tailed)
Single	106	3.1667	0.5833	0.1667	215	236	-1.335	.182
Married	6	3.000	0.4791		Mann-Whitney U test		H_{04} accepted	

In Turkey, it was revealed that 26.52% of nursing students wanted to work in facilities that solely cared for geriatric patients.²⁴ Nursing students' desire to care for elderly individuals was rated 3.87 out of 5 in the United States.²⁵ However, it's difficult to compare this factor of our data to other studies because the instruments and ratings are varied, and the ECAQ has no cutoff thresholds.

4.2 Nursing students' desire to care for geriatric patients by sex (H_{02}): Our study showed statistically no significant difference between boys and girls regarding their desire to care for geriatric patients. However, according to global literature females are often more eager to care for elderly persons than males.²⁶⁻²⁷ On the contrary, some researches have reported findings that are identical to ours.²⁸

4.3 Nursing students' desire to care for geriatric patients by age groups (H_{03}): Our study showed statistically significant difference regarding age of nursing students and desire to care for geriatric patients. It was higher in older age group (22-25 years) than younger age group (19-21 years). It should be noted that age is the only factor which showed significant difference. As, the nursing students age increase, so does their desire to care for older adults. In Iran and China, it was reported that age had no significant impact on desire of students to care for older adult patients.^{22,29} Interestingly, a study in Turkey reported that as student grow old, their desire to care for older adults decline.⁹

4.4 Nursing students' desire to care for geriatric patients by marital status (H_{04}): Our study showed no significant difference concerning desire to care for geriatric patients in single and married nursing students (Table 3.5.4). Interestingly, this finding is consistent with the findings of Persian study.²² However, our study was countered by another study conducted in Ilam city of Iran; study reported that there is significant difference between the unmarried and married nursing students and their desire to care for geriatric patients.³⁰

4.5 Strengths of our study

4.5.1 Marwat's Logical Trajectory of Research Process: We performed this 8-step cognitive and analytical cycle of recognizing our research issues, determining gaps in knowledge, articulating our concerns as research questions, framing them as goals, gathering probable solutions for our concerns from literature as hypotheses, conducting research for variables involved from our population, processing, analyzing and interpreting these data to acquire answers for our research questions; therefore, bridging our gaps in the knowledge and addressing our problems.³¹⁻³²

4.5.2 Population-Sample-Population Flow: Research is a continuous (step-by-step) process that aims to answer issues for a specified community.

However, many studies in the global literature start with a sample and conclude with a sample, with little or no acknowledgment of the population of interest. We defined our population, drew the sample, gathered and analyzed the data for the data set, and then extrapolated it to our population as predicted values and hypotheses testing, responding to questions and addressing issues.³¹⁻³²

5. CONCLUSION

Nursing researchers have devoted little interest to age discrimination, despite the fact that it is a serious and prevalent challenge in healthcare settings. In our population, the desire of nursing students to care for geriatric patients was lower than expected. It was similar in boys and girls and in single and married students. It was higher in older than younger age group. Nursing students should be taught accurate and comprehensive techniques to boost their desire towards caring for the elderly.

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CONFLICT OF INTEREST

Authors declare no conflict of interest.

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None declared.

AUTHORS' CONTRIBUTION

The following authors have made substantial contributions to the manuscript as under:

Conception or Design: MQ, AA

Acquisition, Analysis or Interpretation of Data: MQ, AA, HS, KOA, MA

Manuscript Writing & Approval: MQ, AA, HS, KOA, MA

All the authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.



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