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COMPARING THE ATTITUDE OF BS NURSING AND MEDICAL STUDENTS TOWARD RESEARCH EXECUTION

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ABSTRACT

Background: This study explores research attitudes in Lahore-based BS Nursing and Medical students, recognizing research as a significant scientific process that addresses knowledge gaps and enhances healthcare practice. Through analyzing these groups of students' attitudes towards research implementation, the study seeks to encourage research participation in healthcare education.

Objective: To compare the attitudes of BS Nursing and Medical students in executing research tasks and their attitudes toward research involvement.

Methods: Comparative research design was selected to conduct this study. Modified Attitude towards Research scale used as research tool. 128 students from Rashid Latif Khan University Lahore, Pakistan which consist of 32 BS Nursing and 96 Medical students were included in research study through online Google doc survey.

Results: The study included 32 BS Nursing and 96 Medical students, the study depicts that BS Nursing **(M=97.59±12.14)** and medical students **(M=98.68±13.81)** had comparable attitudes towards research implementation **(mean difference=1.09, p=0.517)**. A poor correlation **(r=-0.119)** revealed no significant intergroup difference.

Conclusion: The research attitude was found to be no different between nursing and medical students and both groups were found to have similar levels of participation and perception. The findings from the data reveal that neither group is significantly better in research implementation.

Recommendation: The future multi-center studies with various illustrations should discover relative aspects and longitudinal strategies to reinforce generalizability and perceptions into research dispositions.

Background

According to a definition given by Western Sydney University (2021), research is defined as the development of new insight or the innovative application of preexisting information to produce novel concepts, approaches, and understandings are referred to as research. It includes learning about health and care, as well as how to assist others in addressing health issues. Nursing research aims to use evidence-based strategies to enhance patient outcomes and care quality. Nursing is a rapidly evolving field that functions as a social, applied, and empirical science. Nursing research is somewhat recent since, prior to its inception; the majority of what nurses practice and teach was founded more on custom and belief than on empirical data. Florence is where nursing research first began (Ndu et al., 2024). One of a profession's fundamental components is conducting research to further professional knowledge. One of the key competencies for health professionals has thus been identified as practicing according to evidence through active involvement in research activities (Amoo & Gbadamosi, 2021). Concerns about scientific research have grown in both poor and wealthy countries, owing to the potential for improved medical treatment. Conducting research requires up-to-date understanding of scientific ideas and procedures. Medical students should understand research methodologies as future doctors will need to use evidence-based medicine in patient treatment. Scientific research is a methodical strategy for proving or disproving ideas and hypotheses (Pallamparthy & Basavareddy, 2019; Zahid et al., 2025). According to descriptive cross-sectional study design in 2021 occurred in United States of America most of the participants thought that research was a challenging, complex, demanding, and tough subject, around 63% of total participants who had a good perspective. To increase student involvement in research, nursing faculties can implement initiatives including conferences, seminars, and research workshops. This research emphasizes the necessity of evidence-based practice. They advocate adding more research material to curriculum, creating supportive settings, and boosting mentorship to increase students' involvement and confidence in research (Amoo & Gbadamosi, 2021). According to a survey on the factors impacting undergraduate research activity at the University of Rwanda's College of Medicine and Health Sciences, just 27% of students actively participate in research activities, indicating a significant gap in involvement. It was discovered that students' level of involvement in their studies was mostly determined by their access to resources and mentorship, as 75% of participants stated they required more guidance. The authors propose strengthening mentorship programs, increasing access to research resources, and fostering a supportive institutional culture as ways to positively impact students' views toward research and increase overall engagement, this study aim to promote students' academic and professional development by creating an environment that empowers and motivates them to undertake research (Mugabo et al., 2021; Noreen et al., 2023). The study

conducted in 2023 examine the perspectives of second-year post-RN students and fourth-year BSN students which show that 60% of students express a positive attitude towards engaging in research activities, according to the research, indicating a strong desire to support evidence-based nursing practice. A significant deficit in the nursing school curriculum is suggested by the study's which identified that 75% of students feel inadequately prepared to conduct research due to limited training. Additionally, the results reveal that students who receive mentorship show a 40% increase in research interest. This study highlights the necessity of improved instructional techniques and materials to foster a supportive and self-assured research culture (Mansha et al., 2023).

Objectives

- To compare the attitudes of BS Nursing and Medical students in executing research tasks and their attitudes toward research involvement.

Hypothesis

(H_0): There was no significant difference in the attitude of BS nursing and medical students toward research execution.

(H_1): There was a significant difference in the attitude of BS nursing and medical students toward research execution.

Methods and Material

This comparative analysis compares last-year Bachelor of Science in Nursing (BSN) and medical students' attitudes towards research execution at Rashid Latif Medical Complex, Lahore, from October 2024 to April 2025. Sample size is 128 last-year students and was calculated by using Open Epi version 3.0 through application of inclusion of stratified random sampling for diversity, from which 32 students were enrolled in BS Nursing and 96 Medical students. Inclusion criteria are enrollment in BSN and Medical courses, health, accessibility, and readiness studies, while exclusion criteria rule out non-consent or clinically inadequate students. Research Usefulness (9 positive items) on a 5-point Likert scale by a 5-subscale, validated questionnaire adjusted from Chaturvedi et al. (2023) with permission, identified following; Research usefulness (9 positive), Research Anxiety (8 negative), Positive Attitude (6 positive), Relevance in Life (4 mixed), and Research Difficulty (3 negative). Positive items are (1-9, 18-25) and negative items are (10-17, 26-30) with reliability of r=0.86. The data was collected from a Google Form that requested demographics (age, gender, qualifications, involvement in research events), post-consent, and departmental approval. Anonymity and the right to retreat are safeguarded without inflicting harm. The 28-week period consists of a literature review (weeks 1-4), proposal preparation (weeks 5-9), data collection (weeks 10-15), analysis (weeks 16-18), thesis writing (weeks 19-26), and defending (weeks 27-28). SPSS version 23 data analysis provides both descriptive and inferential statistics (p=0.05). The ethical approval from Rashid Latif College of Nursing emphasizes that there is no penalty for withdrawal, privacy, voluntary engagement, or confidentiality.

Results

Table 1: Demographic Information

Participants	Gender	Frequency (%)	Age in Years	Frequency
BS Nursing Students	Male	14 (44%)	≤ 20	0.0
			21-25	31 (97%)
	Female	18 (56%)	25-30	1 (3%)

			> 30	0.0
Total		32 (100%)		32 (100%)
Medical Students	Male	43 (45%)	≤ 20	10 (10%)
	Female	53 (55%)	21-25	72 (75%)
			25-30	13 (14%)
			> 30	1 (1%)
Total		96 (100%)		96 (100%)

Table 1 shows respondent demographics. Among 32 BS Nursing students, 44% were males and 56% females, mostly aged 21–25 (97%), with 3% aged 25–30; none were under 20 or over 30. Among 96 medical students, 45% were males, 55% females, predominantly aged 21–25 (75%), and with 14% aged 25–30, 10% under 20, and 1% over 30. The similar age and gender distribution in both groups ensures valid comparison of their attitudes towards research.

Table 2: Attitude toward Research (BS Nursing Students)

Sr. No.	Statement	SA %	A %	N %	D %	SD %
	Research usefulness in the nursing profession					
1.	Research is useful for my career	56	41	0	3	0
2.	Research is connected to my field of study	56	44	0	0	0
3.	Research should be indispensable (essential) in my professional training	28	56	9	7	0
4.	Research should be taught to all students	28	56	13	3	0
5.	Research is useful to every professional	31	38	31	0	0
6.	Research is very valuable	28	50	16	6	0
7.	I will employ research approaches in my profession	22	59	19	0	0
8.	The skills I have acquired in research will be helpful to me in the future	47	53	0	0	0
9.	Knowledge from research is as useful as writing	31	50	13	6	0
	Research anxiety					
10.	Research makes me nervous	16	49	22	13	0
11.	Research is stressful	25	44	22	9	0
12.	Research makes me anxious	19	38	22	18	3

13.	Research scares me	6	28	28	35	3
14.	Research is a complex subject	31	47	16	6	0
15.	Research process is complicated	28	47	19	3	3
16.	Research is difficult	28	44	15	13	0
17.	I feel insecure concerning the analysis of research data	9	22	25	41	3
	Positive attitude towards research					
18.	I enjoy research	6	44	25	13	12
19.	I like research	6	34	35	16	9
20.	Research acquired knowledge is as useful as arithmetic	3	50	41	3	3
21.	Research is interesting	16	47	22	9	6
22.	Most students benefit from research	22	56	19	3	0
23.	I am inclined to study the details of research	16	53	28	3	0
	Relevance in life					
24.	I use research in my daily life	3	44	19	34	0
25.	Research-orientated thinking plays an important role in everyday life	6	56	25	13	0
26.	Research thinking does not apply to my personal life	6	38	19	28	9
27.	Research is irrelevant to my life	3	22	25	47	3
	Research difficulty					
28.	I have trouble with arithmetic	6	44	44	6	0
29.	I find it difficult to understand the concepts of research	9	47	34	10	0
30.	I make many mistakes in research	22	43	19	13	3

The data in table 2 shows nursing students largely value research for their profession, with over half strongly agreeing its importance and usefulness. Many see research as integral to their studies and future careers. However, significant anxiety exists, with many feeling nervous, stressed, or scared by research. They also perceive research as complex, difficult, and prone to mistakes. Despite this, students enjoy research and recognize its relevance to daily life and professional growth. Overall, they appreciate research's value but face notable challenges and anxieties.

Table 3: Attitude toward research: (Medical Students)

Sr. No.	Statement	SA %	A %	N %	D %	SD %
	Research usefulness in the					

	nursing profession					
1	Research is useful for my career	45	47	4	3	1
2	Research is connected to my field of study	43	46	3	6	2
3	Research should be indispensable (essential) in my professional training	34	49	10	6	1
4	Research should be taught to all students	47	36	11	4	2
5	Research is useful to every professional	41	42	15	0	2
6	Research is very valuable	36	44	16	2	2
7	I will employ research approaches in my profession	27	45	23	4	1
8	The skills I have acquired in research will be helpful to me in the future	33	52	9	4	2
9	Knowledge from research is useful as writing	33	50	16	0	1
	Research anxiety					
10	Research makes me nervous	17	42	26	13	2
11	Research is stressful	14	47	24	13	2
12	Research makes me anxious	19	33	34	11	3
13	Research scares me	17	32	29	20	2
14	Research is a complex subject	15	48	27	10	0
15	Research process is complicated	21	48	20	10	1
16	Research is difficult	21	51	22	6	0
17	I feel insecure concerning the	21	41	26	11	1
	Positive attitude towards research					
18	I enjoy research	18	52	25	3	2
19	I like research	19	47	27	5	2
20	Research acquired knowledge is as	14	50	28	6	2
21	Research is interesting	20	58	15	5	2

22	Most students benefit from research	23	54	17	3	3
23	I am inclined to study the details of research	21	59	15	2	3
	Relevance in life					
24	I use research in my daily life	12	35	38	12	3
25	Research-orientated thinking plays an important role in everyday life	14	47	32	5	2
26	Research thinking does not apply to my personal life	12	40	28	18	2
27	Research is irrelevant to my life	7	27	29	33	4
	Research difficulty					
28	I have trouble with arithmetic	16	49	27	6	2
29	I find it difficult to understand the concepts of research	15	48	22	14	1
30	I make many mistakes in research	18	42	31	9	0

Table 3 highlights strong professional valuation of research. Most students agree research is useful for their careers (43% SA, 46% A) and related to their studies (34% SA, 49% A). Support for research in education is widespread: 47% SA, 36% A, and 41% SA, 42% A for its necessity in professional training. Many believe research benefits all professionals and is very valuable, with over 36% strongly agreeing. Confidence in applying research methods and skills is notable, with over 33% strongly agreeing. However, distress is common: 17% SA feel nervous, 14% SA find research stressful, and 19% SA feel anxious. Perceived complexity persists: 15-21% strongly agrees that research is complicated, and many feel insecure analyzing data. Positive attitudes are moderate, around 18-20% strongly agree they enjoy, like, or find research interesting. About half see research knowledge as useful as arithmetic, and a majority believe most students benefit from research. Relevance to daily life varies; some use research daily or see its importance, while others find it irrelevant or inapplicable. Challenges remain significant: roughly 15-18% struggle with arithmetic, understanding research concepts, or making mistakes, influencing their overall attitudes and indicating notable difficulties.

Table 4: Correlation between BS Nursing and Medical Students

		Nursing	Medical

Nursing students	Pearson Correlation Sig. (2-tailed) N	1	-.119
			.517
		32	32
Medical students	Pearson Correlation Sig. (2-tailed) N	-.119	1
		.517	
		32	96

The correlation table presents the relationship between BS nursing and medical students' attitudes toward research execution using Pearson's correlation coefficient (r). The Pearson correlation value (-0.119) indicates a weak negative correlation between the two groups, suggesting that as one group's attitude toward research execution changes, there is a slight tendency for the other group's attitude to shift in the opposite direction. However, this correlation is not statistically significant ($p = 0.517$, $p > 0.05$), meaning that the observed relationship could be due to chance and does not indicate a meaningful association.

The descriptive statistics table presents the mean scores and standard deviations of BS nursing and medical students regarding their attitudes toward research execution. The mean score for medical students ($M = 98.68$, $SD = 13.81$) is slightly higher than that of nursing students ($M = 97.59$, $SD = 12.14$), indicating that medical students, on average, have a marginally more positive attitude toward research execution. However, the small difference in mean scores suggests that both groups hold relatively similar views on research, with slight variations likely influenced by differences in curriculum, exposure, and research training.

Discussion

Demographic Comparison

The last-year BS Nursing and medical students at Rashid Latif Medical Complex, Lahore, and the sample study (N=128) consisted of 97% 21–25 years old with a gender ratio of 56% female for BS Nursing and 55% for medical students, thereby becoming an age-balanced and balanced group to equate attitudes. In contrast, Faris et al. (2020) had 74.2% of the 20–22-year-old nursing students (mean=22.27) and 82.3% females with more females who were younger. Assar et al. (2022) had a large sample (N=2989) of participants from six countries with 40% males that was less gender balanced than this study's 44–45% of males. Amoo and Gbadamosi (2021) drew on a highly female (95%) and age-variable (16–30+ years) sample that contrasts with the gender-balanced and age-clustered sample in this research. Silvia et al. (2022) used an older, more age-expansive age range (21–63 years, 87% female, N=204), in contrast to the younger, stable-gender sample used here. Ferdoush et al. (2021) had 63.3% female participation, marginally less equal than the female 55–56% split in this paper but with youth concentrations (85–97% ≤25 years). Chaturvedi et al. (2023) and Ndu et al. (2024) both had quite heavily female samples (59.2% male overall and 83% female general, respectively), with age concentrations (64.1–68.7% ≤25 years) less intensely clustered than the dense age clustering in this study, thus well-suited to compare on an even basis (Faris et al., 2020; Assar et al., 2022; Amoo & Gbadamosi, 2021; Silvia et al., 2022; Ferdoush et al., 2021; Chaturvedi et al., 2023; Ndu et al., 2024).

Results Comparison

No substantial difference in research attitudes was seen between BS Nursing and medical students (mean difference: 1.09, p=0.517) with high mean values (97.59 vs. 98.68) and comparable variability (SDs: 12.14 vs. 13.81), demonstrating reciprocal positive inclinations. Faris et al. (2020) recorded improved attitudes

following training (45% to 78%, p=0.001), emphasizing systematic education over this baseline equivalence. Assar et al. (2022) indicated 91.6% medical students with poor comprehension of research and positive attitudes, as opposed to no disciplinary variation in this study. Amoo and Gbadamosi (2021) indicated positive to moderate attitudes (mean: 3.45/5) but poor comprehension (58%), as opposed to agreement of attitudes according to discipline in this study. Silvia et al. (2022) established a correlation of 0.340 between thesis completion and attitudes that is different from this study's low correlation (r=-0.119) and high variance. Ferdoush et al. (2021) identified training and time barriers (86.6–89.1%), with no intergroup differences suggestive of systemic barriers found in this study. Chaturvedi et al. (2023) encountered equivocal sentiment (54.2% positive), so did this study with strong scores but fluctuation in variability (41.83% neutral). Ndu et al. (2024) encountered low research readiness (mean: 2.7/5), whereas these supportive, stable sentiments in the present research signal the need for training specially formulated to address gaps (Faris et al., 2020; Assar et al., 2022; Amoo & Gbadamosi, 2021; Silvia et al., 2022; Ferdoush et al., 2021; Chaturvedi et al., 2023; Ndu et al., 2024).

Limitation

Although providing insightful results, this research has some limitations. The results are drawn from one cohort only, hence reducing generalizability to other disciplines or institutions. The data is self-reported and may present some bias, and the cross-sectional design does not allow causal conclusions. Mixed methods, wider samples, and longitudinal designs should be considered in future studies for further investigation.

- The study's findings have limited generalizability towards BS nursing and medical students.
- The sample size was limited toward single population.
- The study does not examine the factors that affect the attitude of participants.
- Study is conducted in only one institution.
- The participants were novice.

Conclusion

The findings of this study depict that BS nursing and medical students share the same view regarding the implementation of research, with only a slight difference in their average rating. The correlation between the two groups was weak and statistically insignificant, indicating that there is no meaningful relationship between their attitudes. Furthermore, the variability in responses was also notable for both groups, though differences were not statistically significant. With the minimal difference in mean scores and no statistical significance, the evidence from the data is that nursing and medical students have similar perceptions regarding research implementation. There is no sufficient evidence to ascertain that one group has a considerably more positive attitude than the other.

This concludes that there is trivial significance between the attitudes of BS Nursing and medical students toward research execution, therefore null hypothesis is accepted and alternative hypothesis is rejected.

Recommendations

This research points towards the necessity of larger studies in other institutions to replicate results across various student groups. Subsequent research should explore context-dependent determinants of research inclinations, for example, curriculum organization and mentoring assistance. Longitudinal or mixed-methods designs could give more insights into cultivating research abilities longitudinally.

- Future research needs to involve mixed healthcare professions for increased generalizability.
- Increase sample size over multiple institutions to yield more trustworthy results.
- Explore contextual variables (e.g., curriculum, mentoring) that impact research dispositions.
- Perform multi-center trials to enhance external validity.
- Involve experienced practitioners as well as novices for contrastive insights**.**

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