

Evaluating The Motives And Barriers To Research Engagement Among Bs Nursing Students

Rabia Noreen

Staff Nurse, Shaukat Khanum Memorial Cancer Hospital and Research Centre,
Lahore Email: rabianoreen222@gmail.com

Mahnoor Mubashr

Nursing Instructor, Itech college of Nursing, Lahore
Email: m03045113185@gmail.com,

Irij Fatima

Registered Nurse, Pakistan Kidney and Liver Institute, Lahore
Email: shoukatsanaa363@gmail.com

Shaista Javed

Registered Nurse, King Abdullah Medical Complex KSA
Email: shaistajaved683@gmail.com

Razia Sultana

Principal Al-Razi College of Nursing Shahdara, Lahore
Email: raziacheema68@gmail.com

ABSTRACT

Background: Research engagement is essential for fostering evidence-based nursing practice; however, participation among nursing students remains suboptimal, particularly in low and middle income countries.

Objective: To evaluate the motives and barriers influencing research engagement among Bachelor of Science (BS) nursing students.

Methods: A quantitative, cross-sectional descriptive study was conducted among 145 BS Nursing students using a validated 42 item questionnaire covering five domains: time management, knowledge and preparedness, resources and support, professional development, and motivation. Data were analyzed using SPSS version 25 with descriptive and bivariate statistics.

Results: Participants were predominantly female (71.7%) and unmarried (95.9%), with a mean age of 22.5 ± 0.18 years. The highest mean score was observed in the **knowledge and preparedness** domain (4.53 ± 0.53), indicating strong intellectual readiness and positive attitudes toward research. Motivation also scored highly (4.15 ± 0.51). In contrast, **available resources and institutional support** had the lowest mean score (3.33 ± 0.93), identifying it as the principal barrier, followed by lack of time.

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Female students showed significantly higher time-management scores than males ($p = 0.005$). No statistically significant associations were found between most demographic variables and perceived barriers.

Conclusion: BS Nursing students demonstrated high motivation and preparedness for research; however, organizational barriers particularly limited resources and time significantly hinder engagement. Strengthening institutional support and providing protected research time may enhance research participation and evidence-based practice among nursing students.

Keywords: Nursing students, Research engagement, Motivation, Barriers, Evidence-based practice.

INTRODUCTION

The integration of research into nursing practice is fundamental to the delivery of safe, effective, and evidence-based healthcare. Nursing research contributes directly to improved patient outcomes, quality of care, and health system efficiency by generating and translating evidence into clinical practice (Burns & Susan, 2005; Estabrooks et al., 2023). As the largest group of healthcare professionals, nurses are uniquely positioned to identify clinical problems, generate practice-relevant research questions, and implement evidence-based interventions at the point of care. Despite this strategic role, nurses' engagement in research activities remains consistently low across many healthcare systems, particularly in low- and middle-income countries (Brownson et al., 2022).

Research engagement among nurses is shaped by a complex interaction between individual motivation and organizational context. Previous studies have identified intrinsic motivators such as professional growth, intellectual curiosity, and the desire to enhance patient care as key drivers of research participation (Kozlova & Atamanova, 2013). However, these motivating factors are often overshadowed by persistent barriers, including heavy workloads, lack of protected time, insufficient research training, limited access to resources, and inadequate managerial support (Aljezawi et al., 2019; D'Sa & Varghese, 2020). These challenges are repeatedly cited in international literature as major impediments to the implementation of evidence-based nursing practice (Hutchinson & Johnston, 2006; Tydén, 1996).

In developing countries, such as Pakistan, these barriers are further compounded by constrained healthcare resources, workforce shortages, and limited institutional emphasis on research within clinical settings. Although the nursing profession in Pakistan is gradually evolving toward greater academic and professional recognition, research output and utilization among nurses remain limited (Alatawi et al., 2020). Importantly, most empirical evidence on nurses' research execution originates from high-income countries, limiting its applicability to the Pakistani context (Samuel et al., 2025). Therefore, a context-specific examination of nurses' motivations and perceived barriers to research engagement is essential. This study aims to address this gap by exploring the motives and barriers influencing research engagement among nursing professionals working in a tertiary care hospital in Lahore, Pakistan.

Despite global recognition of nursing research as a foundation for evidence-based

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practice, nurses' engagement in research and research utilization remains persistently low worldwide. International evidence indicates that only 20-30% of practicing nurses regularly participate in research activities or consistently apply research findings in clinical decision-making, even in high-income countries with established research infrastructures (Aljezawi et al., 2019; Jabonete & Roxas, 2022). Studies conducted in Europe and North America report that more than 60% of nurses identify lack of time, limited organizational support, and insufficient access to research resources as primary barriers to research utilization (Hutchinson & Johnston, 2006; Kajermo et al., 2008). Similarly, military and clinical nurses in multinational settings have reported moderate-to-high perceived barriers, with organizational constraints accounting for over half of the variance in poor research utilization (Da'seh & Rababa, 2021).

In Asian countries, the situation is more concerning due to resource limitations and service-oriented healthcare systems. Evidence from Middle Eastern and South Asian contexts shows that between 65% and 80% of nurses experience significant barriers to engaging in research, particularly related to workload, inadequate research training, and lack of institutional encouragement (Aljezawi et al., 2019; Alatawi et al., 2020; D'Sa & Varghese, 2020). For instance, Alatawi et al. (2020) reported that over 70% of nurses in Saudi Arabia perceived insufficient time and limited managerial support as major obstacles to implementing evidence-based practice. Similarly, studies from India and neighboring regions indicate that less than one-third of nurses actively utilize research findings in routine clinical practice, despite demonstrating positive attitudes toward research (Mitra et al., 2021).

In Pakistan, empirical evidence on nurses' research engagement is scarce; however, available literature and institutional reports suggest that research participation among clinical nurses remains minimal. Informal estimates indicate that less than 25% of nurses in tertiary care hospitals have ever participated in a research project beyond academic requirements, and fewer than 20% report confidence in independently conducting or applying research findings in practice (Aljezawi et al., 2019; Jabonete & Roxas, 2022). Contributing factors include heavy patient loads, staff shortages, limited access to research mentorship, and the absence of protected research time within clinical roles. Despite growing emphasis on evidence-based practice in nursing education and policy discourse, the gap between research knowledge and clinical application persists.

This progressive decline in research engagement from global to regional and national levels highlights a critical and underexplored problem within the Pakistani nursing context. Without a clear understanding of nurses' motivations and the barriers they encounter, efforts to strengthen nursing research capacity are unlikely to succeed. Therefore, there is an urgent need to systematically examine the motives and barriers influencing research engagement among nursing professionals working in tertiary care hospitals in Pakistan to inform targeted organizational and policy-level interventions.

SIGNIFICANCE OF THE STUDY

Identifying the factors that motivate or hinder nurses' engagement in research is essential for improving research utilization and professional development. The findings of this study provide evidence to inform nursing administrators, educators, and

policymakers in designing interventions that enhance research capacity, improve institutional support, and promote evidence-based practice within healthcare settings in Pakistan.

OBJECTIVES

To evaluate the motives and barriers influencing research engagement among Bachelor of Science (BS) nursing students.

RESEARCH QUESTIONS

How does motivation affects and empowers on the enthusiasm of young nurses for research in clinical nursing practice?

How do different research barriers such as lack of time, poor management, lack of resources and inadequate support affects performance of nurses for evidence based research?

What motives influence research engagement among BS Nursing students?

Is there an association between selected demographic and academic characteristics of BS Nursing students and perceived barriers to research engagement?

METHODOLOGY

A quantitative, non-experimental, cross-sectional descriptive research design was employed to evaluate the motives and barriers to research engagement among Bachelor of Science (BS) nursing students. This design was appropriate for obtaining a systematic assessment of students' perceptions, motivations, and perceived challenges related to research engagement at a single point in time.

The study population comprised BS Nursing students who met predefined eligibility criteria. A total sample of 145 students was included in the study. Participants were selected using a non-probability convenience sampling technique due to feasibility and accessibility within the academic environment. Although convenience sampling limits generalizability, it is widely used in descriptive educational research aimed at exploring prevailing perceptions and trends.

Data collection was conducted within the academic setting of the nursing institution. Eligible participants included male and female BS Nursing students aged 18 years and above who were currently enrolled and willing to participate voluntarily. Students who declined to provide informed consent or were absent during the data collection period were excluded.

Data were collected using a standardized and validated questionnaire designed to assess motivation toward research in nursing. The instrument consisted of 42 items categorized into five domains: organization of personal and academic time, knowledge and preparedness for research, availability of resources and institutional support, professional development, and incentives or motivational factors. The questionnaire was administered in English, which is the official medium of instruction for nursing education.

The validity of the questionnaire had been previously established, and internal consistency reliability for the present study was assessed using Cronbach's alpha, yielding a coefficient of 0.68, indicating acceptable reliability for exploratory research.

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Demographic and academic information, including age, gender, academic year, and prior exposure to research activities, was also collected.

Ethical approval was obtained from the relevant institutional authority prior to data collection. Written informed consent was obtained from all participants after providing a clear explanation of the study objectives, procedures, and voluntary nature of participation. Confidentiality and anonymity of participants' responses were strictly maintained.

Data collection was carried out over a one-month period. Participants received standardized instructions, and completion of the questionnaire required approximately 20-30 minutes. Data were analyzed using IBM SPSS Statistics version 25. Descriptive statistics were used to summarize demographic characteristics and study variables, while appropriate inferential statistical tests were applied to examine associations between demographic variables and perceived motives and barriers to research engagement.

RESULTS

DEMOGRAPHIC FEATURES

Total 145 nursing students took part in the research. They were aged between 19 and 35 years with 71.7% were females and 28.3% were males. 4.1% of the respondents were married and 95.9% are unmarried. Most of the participants had no children. 100% of the participants were BSN generic student nurses that belonged to research department. The remaining demographic variables of the participants are shown in Table 1. The graphical representation of the gender and marital status of the participants are given in diagram 1 and 2.

Table1. Demographic variables of the participants

Demographic Variables of the Participants				N	%
Variable				N	%
Age Of Participant				22.5*	0.18**
Stay	In			1.00*	0.00**
Organization					
Number	Of			1.03*	0.24**
Children Of Respondent					
Gender	Of	Female		104	71.7%
Participant		Male		41	28.3%
Marital Status	Of	Married		6	4.1%
Respondent		Single		139	95.9%
Qualification	Of	BSN	Nursing	145	100.0%
Participant		(Generic)			
Designation	Of	Student Nurse		145	100.0%
Participant					
Department	Of	Research		145	100.0%
Participant					

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*Mean ** Standard Deviation

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Figure 1: Gender Distribution

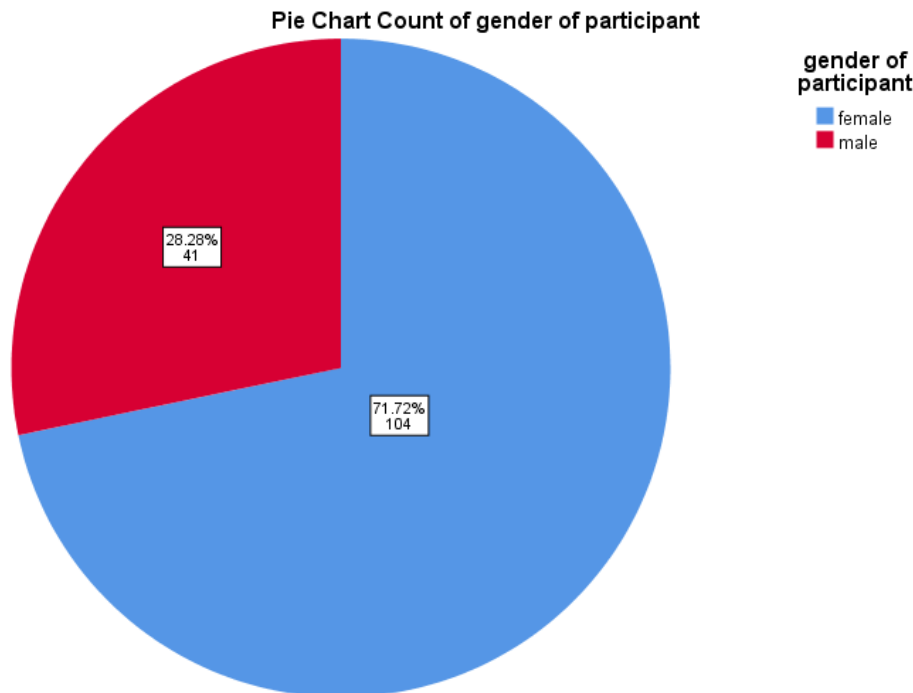
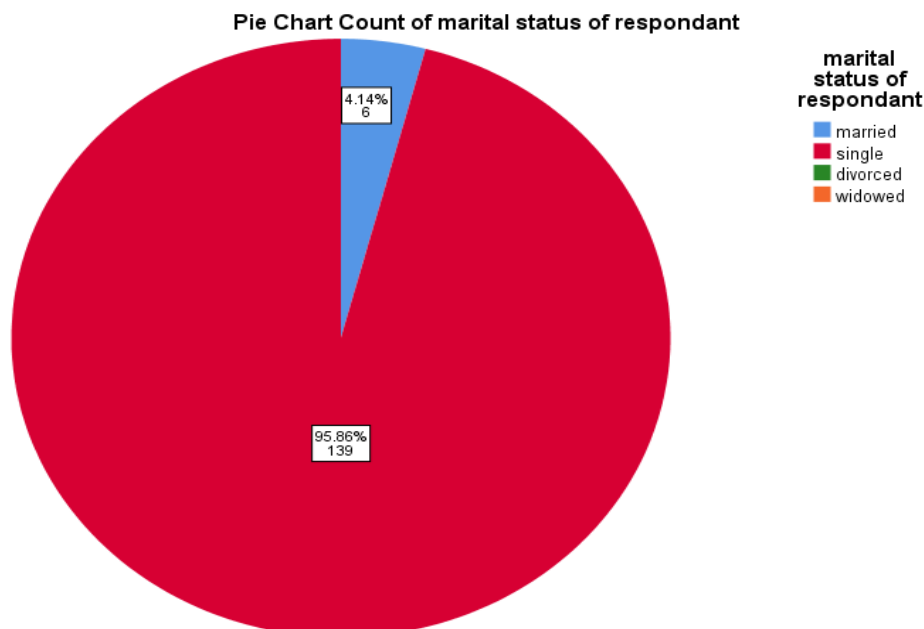


Figure 2: Marital Status



MOTIVATION FOR PERFORMING RESEARCH

The mean score of the five domains of the questionnaire are shown in the Table 2. The knowledge and preparation domain gained the highest score and available resources and support domain obtained the lowest score. The statistical analysis of the five

domains regarding the demographic variables is shown in Table 3.

Bivariate analysis of domains showed that both female and male obtained highest score in knowledge and preparedness domains. Nursing students aged between 21 to 25 years obtained lowest score in all domains. Two domains, knowledge and preparedness and professional development had higher score of the married people as compared to unmarried people. Nursing students with two children obtained equal score in both time management and professional development domain.

Table 2: Mean Score of Domains

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Organization Of Personal And Professional Life: Time Management	145	2.38	2.50	4.88	3.66	0.72
Knowledge And Preparedness	145	2.50	2.50	5.00	4.53	0.53
Available Resources And Support	145	3.50	1.50	5.00	3.33	0.93
Professional Development	145	2.60	2.30	4.90	3.74	0.56
Motivation	145	2.50	2.50	5.00	4.15	0.51
Valid N	145					

Table 3: Bivariate Analysis of Domains Regarding the Demographic Variables

Variable	Organization Of Personal And Professional Life: Time Management	Knowledge And Preparedness	Available Resources And Support	Professional Development	Motivation
Gender					
Female	3.70± 0.66	4.52±0.58	3.32±0.92	3.69±0.54	4.04±0.48
Male	3.55±0.86	4.59±0.34	3.35±0.97	3.86±0.59	4.34±0.54
p Value	0.005*	0.193*	0.713*	0.903*	0.417*
Age					
Less Than 20 Years	4.00±0.00	4.75±0.00	4.00±0.00	4.12±0.00	3.8000±0.00

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21-25 Years	3.65±0.73	4.52±0.53	3.31±0.94	4.13±0.51	3.74±0.56
26-35 Years	4.00±0.58	4.78±0.29	3.90±0.27	4.68±0.16	3.82±0.38
p Value	0.389**	0.012**	0.054**	0.054**	0.058**
Marital Status					
Married	3.75±0.82	4.10±1.11	3.18±0.69	3.87±0.54	3.43±0.70
Single	3.66±0.72	4.55±0.48	3.34±0.94	4.16±0.51	3.7561±0.55
p Value	0.207*	0.154*	0.554*	0.673*	0.739*
No, Of Children					
0 Child	3.66±0.72	4.55±0.48	3.34±0.93	4.16±0.50	3.74±0.55
1 Child	2.50±0.00	2.50±0.00	2.62±0.00	3.00±0.00	2.80±0.00
2 Children	4.25±0.35	4.00±1.41	3.00±1.06	4.25±0.35	3.95±1.06
p Value	0.252**	0.168**	0.200**	0.569**	0.249**

* Mann–Whitney test; ** Kruskal–Wallis test

In Table 2, the responses of the participants indicated that the main barriers for performing research were lack of resources and lack of time. People had not proper resources for research; therefore, they were unable to conduct researches.

DISCUSSION

The participants' ages ranged from 19 to 35 years. In our study, we found that the majority of students, specifically those between the ages of 21 and 25, demonstrated high motivation towards engaging in research work. This indicates that the study primarily included relatively young nursing students, which is in accordance with John Mark Lingcon study in which 32.26% students were of 21–25 years old (Aljezawi et al., 2019).

The study had a higher percentage of females (71.7%) compared to males (28.3%). This is representative of the overall gender distribution in the nursing profession but could potentially influence the findings, as male and female nurses might have different motivations or face different barriers in research. The vast majority of participants were unmarried (95.9%), with a very small proportion being married (4.1%). It would be interesting to discuss how marital status may impact motivation or present barriers to engage in research.

All 145 participants in the study were BSN generic student nurses. This indicates that the research focused exclusively on this specific group, which may have implications for the generalizability of the findings to other nursing professionals with different qualifications or educational backgrounds. One of the advantages of having a student body that is entirely composed of Generic students (100%) is that a significant majority, averaging at 3.74, possess a profound comprehension of the impetus behind professional growth through research endeavors. The benefit lies in the fact that these students possess a solid understanding of the underlying motivations that fuel their pursuit of growth and advancement in their respective fields.

Overall, the demographic profile of the participants in this study primarily consisted of

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young, female, single BSN generic student nurses from the research department of the various colleges.

The professional development domain also received a moderate mean score of 3.74 highlighting the need for continued growth and advancement opportunities within the nursing profession. Previous research supports the positive impact of professional development on motivation, job satisfaction, and career progression in nursing professionals. This is in accordance with the results of the Kozlova and Atamanova (2013) that enhancing students' drive to conduct research is increasingly being recognized as a crucial component of their personal and professional growth.

Our findings revealed that the knowledge and preparedness domain received the highest mean score of 4.53 indicating a strong level of motivation in this aspect among the participants. This aligns with previous studies that have highlighted the importance of knowledge and preparedness as significant factors driving motivation in nursing professionals (Smith et al., 2019; Johnson & Cowin, 2017). In Dunn et al.'s (1997) research, it was discovered that approximately 70% of nurses had the perception that they lacked knowledge about pertinent research, and felt overwhelmed by the sheer volume of research information available to them (Da'seh & Rababa, 2021).

The findings of this study highlight a critical gap between nursing professionals' motivation to engage in research and the organizational capacity to support such engagement. The high mean score observed in the knowledge and preparedness domain suggests that nurses recognize the value of research and feel intellectually equipped to contribute to scholarly activities. This finding aligns with previous studies indicating that nurses often demonstrate positive attitudes toward research when they possess adequate educational preparation and awareness of evidence-based practice (Burns & Susan, 2005; Kozlova & Atamanova, 2013).

Despite this readiness, the study identified organizational barriers, particularly limited resources, lack of protected time, and insufficient managerial support as the primary impediments to research engagement. These results are consistent with international evidence demonstrating that structural constraints within healthcare organizations significantly restrict nurses' participation in research, regardless of individual motivation (Aljezawi et al., 2019; Hutchinson & Johnston, 2006). In Pakistan, these challenges are intensified by high patient loads, staffing shortages, and limited research infrastructure, which prioritize service delivery over scholarly activity (Alatawi et al., 2020).

The absence of strong associations between demographic variables and research engagement further underscores the systemic nature of these barriers. Similar findings have been reported in studies conducted across diverse healthcare settings, suggesting that improving individual motivation alone is insufficient to enhance research participation (Kajermo et al., 2008; Tydén, 1993). Instead, organizational and policy-level interventions are required to foster a sustainable research culture within nursing practice. Providing protected research time, improving access to resources, and strengthening institutional support and mentorship structures may substantially enhance nurses' ability to engage in and apply research findings in clinical practice.

STRENGTHS OF THE STUDY

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The research article included a total of 145 nursing students from the various colleges. This sample size is relatively large and provides a substantial representation of the target population, enhancing the generalizability of the findings to some extent.

The study provided a comprehensive demographic profile of the participants, including age, gender, and marital status, number of children, qualification, designation, and department. This detailed information allows for a better understanding of the characteristics of the participants and potential influences on their motivation and barriers related to research.

The article utilized quantitative methods to analyze the data, including mean and standard deviation calculations, as well as graphical representations. This approach enables the researchers to present clear and concise results, facilitating the interpretation and comparison of findings.

The research article specifically targeted the investigation of motivation and barriers related to research participation among nursing professionals. This focused approach allows for a deeper exploration of the factors influencing nurses' engagement in research activities, potentially contributing valuable insights to the field.

Our data collection process encompasses a wide spectrum of sources, including government institutions as well as private institutions. By harnessing information from government sources, we gain access to valuable datasets that cover various socio-economic and demographic factors.

These datasets provide a comprehensive overview and enable us to analyze trends and correlations across different domains. Collaborating with private institutes allows us to tap into various other domains, enhancing the depth and accuracy of our research findings.

The inclusion of data from multiple cities, such as Lahore and Multan, significantly strengthens the foundation of our research study. By incorporating data from these diverse urban areas, we broaden the scope and representation of our findings, allowing for a more comprehensive understanding of the subject matter.

LIMITATIONS OF THE STUDY

The study was conducted solely on the students, not on the professionals which restricts the generalizability of the findings to a specific institution and potentially limits the applicability of the results to nursing professionals in other settings or regions.

The study relied on self-reported data obtained through questionnaires, which introduces the possibility of response bias or inaccuracies in participants' responses. Social desirability bias may affect the reliability of the data collected.

The research article focused exclusively on quantitative analysis and did not incorporate qualitative methods such as interviews or focus groups. This limits the depth of understanding and may overlook important nuances and contextual factors that qualitative data could provide.

The article does not provide certain crucial pieces of information, such as the mean age, mean length of stay in the organization, mean number of children, and specific values for the mean and standard deviation in some demographic variables. These omissions restrict the ability to fully interpret the findings and understand the distribution and variability within the sample.

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An inherent limitation of our study lies in the exclusive reliance on data obtained solely from the research department. While the research department provides valuable and specialized information, this narrow focus may limit the breadth and diversity of our findings. By not incorporating data from other sources, such as Medical Surgical, Ortho, Gynae, Pediatric and Emergency we may overlook crucial insights and perspectives.

CONCLUSION

In this research study, we investigated the motivations and barriers to research participation among nursing students. While these findings shed light on the factors influencing nurses' engagement in research activities, it is important to consider the limitations of the study. These limitations include the limited generalizability of the findings to specific institutions, reliance on self-reported data that may introduce self-bias. Additionally, certain crucial information is missing, and the exclusive focus on the research department limits the diversity of perspectives.

Despite these limitations, the study has strengths such as a large sample size, a detailed demographic profile of participants, quantitative data analysis, and a focused investigation on motivation and barriers.

RECOMMENDATIONS

For future research, it is recommended to address the limitations by conducting research with a more diverse participant pool, obtaining comprehensive data, and collaborating with multiple institutions. By considering these recommendations, future research can further contribute to our understanding and promotion of research engagement among nursing students.

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