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## Original Article

# Perception of Undergraduate Nursing Students regarding Research

**Hassan Karim, Aurang Zeb**

Rehman Medical Institute, Peshawar-Pakistan

## Abstract

**Background:** Nursing research is an important part of undergraduate nursing curricula that improves optimum care for patients through evidence-based practice (EBP). It helps nursing students think critically and utilize the result of research finding in clinical settings to achieve positive patient outcomes. Nursing research on undergraduate level has been considered the neglected part in Pakistan. Therefore, this study was conducted to determine the perception of nursing students regarding research.

**Objective:** To assess the perception of undergraduate nursing students regarding research  
**Methodology:** A quantitative, cross-sectional descriptive study was carried out among undergraduate nursing students (n= 131) at two colleges. The convenient sampling technique was adopted with a margin error of 5% and a confidence interval of 95%. Data was collected by distributing a questionnaire in the participants with their own consent.

**Results:** The findings of the study revealed that majority of the nursing students responded that research is useful to their profession and they had an overall positive perception towards research. While the response of the participants towards research anxiety domain was that most of them (n=88, 67.2) expressed that research is a complex subject, stressful and difficulty to understand arithmetic research.

**Conclusion:** Most of the participants agreed that research at this level is useful and it may have a good impact on evidence-based practice. It is recommended to the nursing administrator and educators to implement research-related workshops from the first year of undergraduate degree, as it is beneficial for future nursing students and it improves evidence-based practice.

## Keywords

Perception, Nursing Students, Research, Undergraduates.



## Introduction

Research plays a key role in the development of every discipline. The same way nursing research is also important, as it helps to improve optimum care for patients through evidence-based practice (EBP). It helps nurses to think critically and utilize the result of research finding in clinical settings to achieve positive patient outcomes. Moreover, nursing research is a progressing domain in which professionals can contribute through their skills and experience to nursing practice and achieve holistic care<sup>1</sup>. Nursing students are potential nurses and they should not only know how to conduct a good research, but also, its effective utilization. For nursing students, research is necessary not only on graduate but also on undergraduate level. It will not only help to equip nurses with the knowledge and utilization of research, but also, the research findings will improve the quality of patient care. It is possible only when undergraduate nursing students are engaged in research activities during their academics<sup>2</sup>. Though, research is at basic level in nursing curricula, but undergraduate nursing students usually find it difficult to understand, at the same time it is challenging for the academicians too to engage students in learning research<sup>3</sup>.

Undergraduate nursing students are optimistic towards research, but they face lack of guidance, confidence, and opportunity to carryout research. Evidence based practice through research is an integral part of quality healthcare, as nursing students need relevant information to be aware of the care that they give. Further studies and cooperation of institutions may improve the research culture among students<sup>4</sup>. A study was carried out on Turkish nursing students to find out the awareness and attitude of nursing students towards research. It was suggested that the awareness of research at nursing schools should be initiated<sup>5</sup>. As it is obvious that nurses are expected to provide high-quality and evidence-based care, therefore, the research knowledge is the basis for it, so by implementing research activities in baccalaureate nursing program is an essential step to develop the interest of students in research<sup>6</sup>. Another study conducted on Swedish nursing students' attitude towards research showed that

majority of students anticipated that nursing research would benefit them in the future. Students who had some interest in particular research area were comparatively better to carry out more research projects in the future, therefore, it is important to encourage student's interest in research during their undergraduate nursing education<sup>7</sup>. In spite of advancements in nursing education and research across the globe, nursing still remains an underestimated and is slowly progressing. Nursing research on undergraduate level has been considered the neglected part in Pakistan<sup>8</sup>. Hence, giving priority to research on undergraduate level may give positive outcomes for nursing students to make their practice evidence-based. Research is being used as guidance for our practice, as experienced nurses have considered it the most essential to legitimize nursing as a profession. Barriers to the nursing students regarding research are that they cannot, understand, conduct and utilize research.

Undergraduate nursing students present a wide variety of questions which remain unanswered; therefore, research in this domain is needed. Now days, it is important for nurses to have an updated knowledge in the practice, but there are barriers to research utilization in practice. Hence, nursing students are required to have awareness of research since beginning and training about research activities should be on regular interval in nursing curricula<sup>10</sup>. Through conduction of research, students develop competencies in research methodology; statistics and its utilization in clinical practice on undergraduate level. Moreover, it will further enhance the foundation of nursing curricula and will meet the practice needs in the future<sup>11</sup>. Currently, there is a need for nursing research to make the practice as evidence based. So, a strong research foundation will be mandatory for the formation of nursing as a distinguished discipline as well as the establishment of profession<sup>11</sup>. Nurse educators will develop nursing education through qualitative and quantitative research. When the nursing education is developed through research then it can be truly said that nursing education is evidence based<sup>13</sup>. The purpose of this study is to assess the perception of

undergraduate nursing students regarding research. And what are the perceptions of undergraduate nursing students regarding research?

## Methodology

### Study design

A cross sectional descriptive study was conducted to explore the undergraduate nursing student's perceptions regarding research

### Study setting and population

This study was conducted on senior nursing students of the two prominent nursing colleges' one from public and other from private sectors in Peshawar, KP.

### Sampling Technique

Convenient sampling technique was used for the selection of the study participants. Convenient sampling is a non-probability sampling technique where subjects are selected because of their easy availability and proximity to the researcher.

### Sample Size

The sample size was calculated by Raosoft software with a known population of 199, having a margin of error of 5 %, a confidence interval of 95%, and a calculated sample size of 131

### Inclusion Criteria

Bachelor of Science in nursing students of year 3 and 4 were included in the study.

**Exclusion criteria:** Students refuse to participate in the study.

### Data collection tool

To evaluate undergraduate students' perceptions about research, a questionnaire of Papanastasiou was adopted.<sup>22</sup> The questionnaire consists of 32 measurable elements and is classified into five parts.

### Data analysis

Data was analyzed through SPSS version 22, means and standard deviations were calculated for continuous data whereas frequencies and percentages were calculated for categorical data.

### Ethical consideration

For this research project, an ethical approval was taken from the Rehman College of Nursing and Institutional review board. Eligible nursing students were given written information outlining the purpose of the study. The participation was made voluntary through a well explained informed consent. Confidentiality and anonymity of the information they provided was assured and can only be disclosed with their permission if needed. Approval for data collection were obtained from the principals of the colleges.

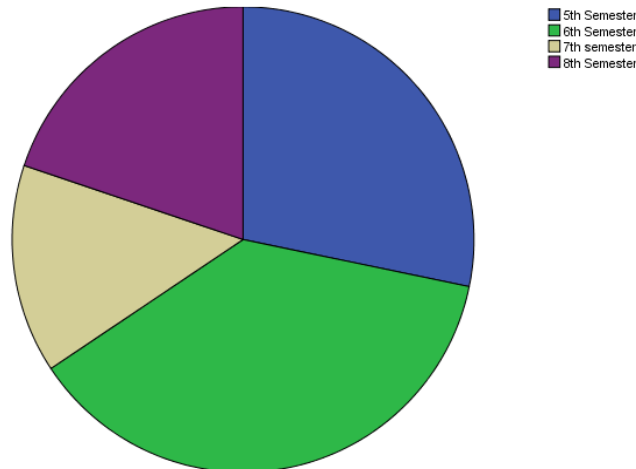
## Results

The majority of the participants in this study were females (n=90, 68.67%) out of total of 131 participants (Table 1). The mean age of the participants was  $22.05 \pm 1.14$  (M $\pm$ SD). Most of the participants (n=86, 65.6%) were studying in the 3rd year while (n=45, 34.4) were studying in the 4th year. While the distribution of participants from different semesters is shown in the pie chart.

**Table 1: Demographic Representation of Study Participants**

Variable	n(%)
<b>Gender</b>	Male 41(31.3)
	Female 90(68.67)
<b>Year</b>	3 <sup>rd</sup> year 86(65.6)
	4 <sup>th</sup> year 45(34.4)
	Mean $\pm$ SD
<b>Age</b>	22.05 $\pm$ 1.14

\*N=131



**Figure 1: Students Representation with respect to Semester**

Table 2 shows the nursing students' perception of research in five domains; usefulness of research in a career, research anxiety, positive attitudes toward research, research relevance to life, and research difficulty. Almost all of the nursing students responded that 'research is very useful to their career' (n=130,99.2%), 'research is useful to every professional' (n=125,95.4%), 'research should be taught to all the students' (n=125,95.4%), 'the skills acquired in research is helpful for them in future' (128,97.7%). Although 98.5% (n=129) revealed that 'research is connected to their field of study', research is indispensable in their professional training' 80.2% (n=105). However, 87 % (n=114) agreed that they will 'employ research learning in their profession' and majority of the nursing students (n=116, 88.5) expressed that they can 'benefit from research'. While, 74.8 % (n=98) had a positive attitude towards research that they 'like research', (n=93, 71%) 'Love research', and (n=88, 67.2) 'enjoy research'. The responses of participants towards research anxiety domain was that majority of them (n=88, 67.2), expressed that 'research is a complex subject', and is 'a stressful', (n=, 65, 49.6). As for most of the nursing students, 83.2 % (n=109) responded that 'research-oriented thinking play a significant role in everyday life' and 'research is relevant to their life' (n=80, 61.1%). However, nearly more than half (n=81, 61.8%) have a 'trouble with arithmetic' in research difficulty domain, and (n=74, 56.5%) find it difficult to 'grab the concepts of research'.

**Table 2. Responses of the participants regarding research**

Variables	Agree n(%)	Disagree n(%)
<b>Research usefulness</b>		
Research is useful for my career	130(99.2)	1(0.8)
Research is connected to my field of study	129(98.5)	2(1.5)
Research should be indispensable in my professional training	105(80.2)	25(19.1)
Research should be taught to all students	124(94.7)	7(5.3)
Research is useful to every professional	125(95.4)	5(3.8)
Research is very valuable	125(95.4)	5(3.8)
I will employ research approaches in my profession	114(87)	17(13)
The skills I have acquired in research will be helpful to me in the future	128(97.7)	3(2.3)
Knowledge from research is as useful as writing	120(91.6)	11(8.4)
<b>Research Anxiety</b>		
Research makes me nervous	62(47.3)	69(52.7)
Research is stressful	65(49.6)	66(50.4)

Research makes me anxious	57(43.5)	74(56.5)
Research scares me	44(33.6)	87(66.4)
Research is a complex subject	88(67.2)	43(32.8)
Research is complicated	75(57.3)	56(42.7)
Research is difficult	82(61.8)	49(37.4)
I feel insecure concerning the analysis of research data	58(44.3)	73(55.7)
<b>Positive attitude towards research</b>		
I love research	93(71)	38(29)
I enjoy research	88(67.2)	43(32.8)
I like research	98(74.8)	32(24.4)
I am interested in research	98(74.8)	32(24.4)
Research is interesting	105(80.2)	26(19.8)
Most students benefit from research	116(88.5)	15(11.5)
I am inclined to study the details of research procedures carefully	100(76.3)	31(23.7)
Research acquired knowledge is as useful as arithmetic	114(87)	17(13)
<b>Relevance to life</b>		
I use research in my daily life	67(51.4)	64(48.9)
Research-orientated thinking plays an important role in everyday life	109(83.2)	22(16.8)
Research thinking does not apply to my personal life	63(48.1)	68(51.9)
Research is irrelevant to my life	51(38.9)	80(61.1)
<b>Research difficulty</b>		
I have trouble with arithmetic	81(61.8)	50(38.2)
I find it difficult to understand the concepts of research	74(56.5)	57(43.5)
I make many mistakes in research	89(67.9)	42(32.1)

\*N=131

## Discussion

The aim of the present study was to assess the perception of nursing students regarding research. The questionnaire consisted of 32 elements that were measured in five domains: usefulness of research in a career, research anxiety, positive attitudes toward research, research relevance to life, and research difficulty. The majority of the nursing students had a positive attitude towards research and emphasized that research is crucial in their profession. It is obvious that research findings can be utilized in nursing practice; it reduces the practice-theory gap and creates logical thinking and a critical approach<sup>12</sup>. In accordance with the studies from other countries, the majority of the participants reported that research is indispensable in their practice, useful in their career and will implement research approaches in their practice. It can be concluded from these findings that the utilization of research can strengthen nursing as a

profession<sup>13</sup>. Finding from other another study in Australia suggested that most nurses and nursing students viewed research as significant in patient care and it has a high role for nurses, and they expressed interest in conducting research despite the fact that many nurses have barriers such as scarce resources, lack of skills in research and limited time to participate in research<sup>14</sup>. Similarly, another study found that 89.2% of study groups actively working on research projects and has a good orientation towards international research results<sup>14</sup>. Onwuegbuzie and Papanasatasiou et al. expressed that nursing students at the undergraduate level find statistical concepts difficult and have a huge fear and nervousness towards research. This research apprehension can ultimately affect the performance of students and low efficacy for research-related activities<sup>15,16</sup>. While, in the present study, the participants asserted that research is stressful (n=,65, 49.6) and

is a complex subject ( $n=88,67.2$ ). The statistic anxiety is connected to the students' performance in statistical concepts and research methodology<sup>17-22</sup>. Hence, in our study, nearly more than half ( $n=81, 61.8\%$ ) have 'trouble with arithmetic' in the research difficulty domain, and ( $n=74, 56.5\%$ ) find difficult to understand the concepts of research.

The finding of this study is limited to generalize to other nursing students due to the homogeneous nature of the sample. However, the response rate was 100%. The study was limited to nursing students of two colleges in KP. Upcoming studies should include large sample size and focus on barriers towards the utilization of nursing research.

## Conclusion

In conclusion, the undergraduate nursing students had a positive perception of research. Most of the participants agreed that research at this level is useful and it may have a good impact on evidence-based practice. However, many of the participants have difficulty understanding statistical and research concepts. It is recommended to the nursing administrator and educators to implement research-related workshops from the first year of undergraduate degree as it is beneficial for future nursing students and it improves evidence-based practice.

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