

Original Research Article

## The Barriers and Challenges of Conducting Nursing Research and Communicating Research Findings into Practice

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### ABSTRACT

**Background:** Nurses were facing various challenges and barriers while conducting a nursing research and communicating research findings into practice. The study aims to explore those barriers and challenges.

**Methods:** A descriptive study that applied quantitative and qualitative research methods of data collection was adopted for the study. Data were collected through a Likert scale and open ended questionnaire from 116 registered nurses of India. Quantitative portion of the tool were analyzed by using SPSS version 18.0 and Qualitative portion analyzed by using thematic analysis.

**Results:** Most of the nurses (63.8%) occasionally looks for new literature. 39.7% nurses strongly agree that there is inadequate manpower. There is lake of authority of the nurses in changing patient care procedure (37.9% strongly agree). According to 44.8% nurses, nursing expert often differ in their opinion related to methodology. Thematic analysis of the open ended questionnaire showed that nurses faced problems related to organizational factor, resource related problem, knowledge and competency related problem and communication problem. In organizational factor most of them found ethical constrain as a major barrier; whether resource related factors include all money, material and manpower issues. Different opinion of nursing expert confuses the nurses and they found difficulty in getting related literature.

**Conclusion:** The study result shows that, nurses faced barriers and challenges of conducting nursing research and communicating research findings into practice. Barriers are mainly related to poor organizational support, resources, different opinion of experts on methodology, communicating findings into journal because of high payment, and lake of literature.

**Key Words:** barriers and challenges, nursing research

### INTRODUCTION

Nursing profession is an evolving profession. Though it is among one of the oldest profession, still it is of the youngest. For continuing growth of any profession, body of knowledge is an essential part and nursing research is one of the ways to

generate a body of knowledge that helps advance nursing practice and shapes health policy and contribute to global healthcare. But it was seen nurses are facing various barriers and challenges while conducting nursing research and implementing its results. Rolfe G, in his article wrote that the

nursing research agenda has become separated from the needs of nursing practice and Nurse Academics can feel pressured to choose research projects based on how these fulfill universities' needs for recognition and funding. [1] The move towards evidence-based nursing practice requires active participation by nurses at all levels along the continuum of care. Despite this fact, nursing involvement in multicenter research is limited. This not only limits the generalizability of findings, but hinders collaborative and interdisciplinary research networking between hospitals. [1] Healthcare research continually produces large amounts of results and revised methods of treatment and care for patients, which, if implemented in practice, can potentially save lives and improve the quality of life of patients and improves clinical outcomes. [2,4] Nonetheless, a rise in the amount of research results available does not automatically translate into improved patient care and treatment. There is broad evidence that there is a substantial gap between the healthcare that patients receive and the practice that is recommended – also known as the research-practice gap, evidence-practice-gap or knowing-doing gap. [4,5]

It was seen that though research is integral for development of a profession, nurses find many barriers and obstacles while conducting and implementing it. Therefore this study was undertaken to explore the barriers and challenges of conducting nursing research and communicating research findings into practice, which will help in overcoming those barriers and improve nursing research as well as its implementation in India.

## MATERIALS AND METHODS

This was a descriptive study that applied quantitative and qualitative research methods of data collection to determine the barriers and challenges of conducting nursing research and communicating

research findings into practice. The quantitative data was collected through a self-administered Likert scale. The qualitative data was through a self administered open ended questionnaire.

Data was collected from 116 registered nurses. Among them, from 94 data was collected through mail and from another 22 it was through pen and paper. Only 93 of them responded for the open ended questionnaire.

Quantitative Data was entered into Statistical Package for Social Sciences (SPSS) software version 18.0 and further analysed using descriptive statistics including narration. Qualitative data were analysed through thematic analysis.

## RESULTS

### Quantitative findings:

A total 116 registered nurses responded to the questionnaire. Table 1 is showing Socio-demographic characteristics of the registered nurses. It shows that maximum i.e. 38.79% of the sample belonged to an age group of 21 to 30 years. Most of them i.e. 49.13% completed B.sc. nursing. Only 7.8% of the samples were working as a nurse researcher and most of them (63.8%) look for new literature occasionally. Very few i.e. 12.9% search for new literature often.

Table 1: Socio-demographic characteristics of the registered nurses. N=116

Variables	Frequency	Percentage
<b>Age</b>		
21-30 years	45	38.79%
31-40 years	25	21.55%
41-50 years	20	17.24%
51-60 years	26	22.41%
<b>Education</b>		
B.Sc. Nursing	57	49.13%
M.Sc. Nursing	50	43.10%
Ph.D.	9	7.8%
<b>Designation</b>		
Nursing Officer (Staff nurse)	52	44.82%
Nurse teacher	56	48.27%
Nurse Researcher	8	6.9%
<b>Looking for new literature</b>		
Often	15	12.9%
Regularly	19	16.4%
Occasionally	74	63.8%
Never	8	6.9%

**Table 2: The barriers and challenges of conducting nursing research and communicating research findings into practice: N=116**

Sl. No.	Questions	Strongly Agree		Agree		Disagree		No response	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
<b>I</b>	<b>Organizational factors</b>								
A	The nurse does not feel she/he has enough authority to change the patient care procedures	44	37.9%	53	45.7%	18	15.5%	1	0.9%
B	Administration does not cooperate in implementation of nursing research	21	18.4%	81	71.1%	12	10.3%	2	1.7%
C	Inadequate Manpower	46	39.7%	59	50.9%	9	7.8%	2	1.7%
D	Inadequate Money and materials	60	51.7%	43	37.1%	10	8.6%	3	2.6%
E	Inadequate supportive or encouraging working environment	41	35.3%	66	56.9%	7	6.0%	2	1.7%
<b>II</b>	<b>INDIVIDUAL FACTORS</b>								
A	The nurse does not have confidence to conduct a research project, either - Independently, or As a team member	26	22.4%	47	40.5%	43	37.1%	0	0%
B	The nurse is unwilling to change/try new ideas	19	16.4%	40	34.5%	56	48.3%	1	.9%
C	The nurse is isolated from knowledgeable colleagues with whom to discuss the research	28	24.1%	54	46.6%	34	29.3%	0	0%
D	Need to pay heavily to publish research findings, hence discouraging	41	35.3%	42	36.2%	33	28.4%	0	0%
<b>III</b>	<b>IMPRESSION OF RELATED FACTORS</b>								
A	The most research conducted by nurse is not relevant to the nursing education and practice.	8	6.9%	47	40.5%	61	52.6%	0	0%
B	It is difficult to find relevant literature	26	22.4%	54	46.6%	36	31.0%	0	0%
C	Protocol for nursing research is too structured and routine, no freedom to experiment with new ideas, hence boring	34	29.3%	58	50.0%	24	20.7%	0	0%
D	Nursing research experts often differ in their views of the methodology, which makes it confusing and frustrating	52	44.8%	42	36.2%	21	18.1%	1	0.9%
<b>IV</b>	<b>QUALITY OF NURSING RESEARCH</b>								
A	Generally nursing research studies are not need-based, topics/areas are repeatedly common	38	32.8%	56	48.3%	20	17.2%	2	1.7%
B	Many Nursing research studies have methodological inadequacies or flawed methodology, hence not publishes by standard journals	30	25.9%	64	55.2%	19	16.4%	3	2.6%
C	The conclusions drawn from the research are not justified	16	13.8%	55	47.4%	45	38.8%	0	0%
D	The research findings have not been tried out in other similar settings to enhance its generalisability	41	35.3%	66	56.9%	9	7.8%	0	0%

Table 2 shows the barriers and challenges of conducting nursing research and communicating research findings into

practice. The barriers and challenges were divided into 4 categories: Organizational Factors, Individual Factors, Impression of

Related Factors and Quality of Nursing Research.

**Organizational Factors:** It includes all the barriers related to the organization. Maximum i.e. 45.7% of the nurses agreed that the nurse does not feel she/he has enough authority to change patient care procedures, and more than ½ of the sample agreed that administration does not cooperate in implementation of nursing research. Most of the samples agreed that there is inadequate money, manpower, material and supportive environment.

**Individual Factors:** This part includes questions related to nurses' competency, attitude, communication gap with knowledgeable colleague and money related problem. Table 2 shows that, 40.5% nurses agreed that the nurse does not have confidence to conduct a research project; whether 37.1% nurses disagreed to it. In case of the question whether a nurse is unwilling to change/try new ideas, most of them i.e. 48.3% disagreed. Maximum nurses (48.3%) agreed that a junior nurse is isolated from knowledgeable colleagues with whom to discuss the research.

**Impression of Related Factors:** This part includes questions related to literature search, relevancy of the topic towards nursing education and practice etc. Half of the sample disagreed that most of the

research conducted by nurse is not relevant to the nursing education and practice. , whether 50% nurses agreed that too structured protocol decrease the freedom of the nurse researcher to experiment with new ideas.

**Quality of Nursing Research:** This part includes questions related to research study topic, publication and generalizability. Most of the nurses (48.3%) agreed and 32.8% strongly agreed to that generally nursing research studies are not need-based, topics and areas are repeatedly common. 55.2% agreed that many nursing research studies have methodological inadequacies or flawed methodology, hence not publishes by standard journals. More than ½ of the sample agreed to the research findings have not been tried out in other similar settings to enhance its generalizability.

**Qualitative findings:**

In qualitative findings it was found that nurses found problem related to the barriers and challenges of conducting nursing research and communicating research findings into practice. Four areas emerged from the overall thematic analysis for the research: Organizational Factor, Resource related problem, Knowledge and competency related problem and Communication problem

Table 3: Frequency and percentage distribution of participants according to problems faced while conducting and communicating research N = 93

Problems faced by nurses while conducting research	Frequency	Percentage
Organizational Factor	31	33.33%
Resource related problem	52	55.91%
Knowledge and competency related problem	45	48.38%
Communication problem	40	43.01%

Table 3 shows that, maximum i.e. 55.91% nurses faced resource related problem while conducting nursing research; while 48.38% nurses face competency and knowledge related problem. 33.33% of the sample found organizational factor as a problem and communication related problem is faced by 40% of nurses.

**Organizational factor:**

Most of the nurses found ethical constrain and Administrative problems were major problems for conducting nursing research.

One of the sample stated, “I have faced problem regarding permission from the authorities of the setting or selected area while conducting research (mainly experimental study)”; while one another sample said, “clearing ethical committee or IRB approvals for experimental or RCT without adding any medical personal”. Another statement is, “findings are hard to implement due to lack of organization/administrative/physician

support, nurses does not have authority to change patient care procedures”.

**Resource related problem:**

Resource related problems were subthemed in two categories – Lack of time and Lack of money and material. Among all the nurses, 59.61% found lack of time to conduct a research. One of them stated, “Difficult to take out time to out of busy schedule”. Lack of money and material is another problem faced by the nurses. 69.23% of nurses faced problems related to money and material. One stated, “no fund provided to conduct research demotivates the researcher”.

**Knowledge and competency related problem:**

Many of the nurses found knowledge and competency related problem as a barrier or challenge. One cited, “Difference in opinions of nursing expert, so difficult to follow.” Another nurse cited that, “nursing research experts often differ in views of the methodology which makes confused”.

**Communication problem:**

Manny nurses faced problems while conducting research because of Communication problem. One of them stated, “Very few literature review in uncommon research studies in the field of nursing service is a problem for the nurse researcher to go ahead with such studies.

## DISCUSSION

Our study showed very reluctant behavior of nurses while searching for a new evidences or literature. More than half of the nurses occasionally search for information. Similar Behaviour of the nurses was found by previous studies. [6,7]

The study found that most of the time nurses are facing obstacles related to organizational barriers – whether it may be related to less authority, lake of cooperation and inadequate resources. Result showed that most of the nurses strongly agreed to it; whether percentage of disagree was very low. In previous study it was found that initiation of the implementation of research results to be largely non-formalized at the

organizational level and not led by management. [4] In Bonner and Sandon (2008) study, 55.2% identified resource constrain as one of the barriers to implementation of EBP which ranks it higher above all other constraints. All nurses, regardless of position identified barriers to performing research. [8,10]

But in case of individual factor, Most of the nurses think that nurses are capable of doing research and have a positive attitude towards implementing new ideas as percentage of disagree is more than strongly agree. It also shows need to pay heavily to publish research findings discourage the nurses. Previous study result showed beliefs and attitudes, involvement in research activities, information seeking, professional characteristics, education and other socio-economic factors influence the utilization of research. [10]

In case of impression related factor, it was found that most of the sample strongly agreed that research topic selected by the nurses are relevant and Protocol for nursing research is too structured and routine, no freedom to experiment with new ideas, hence boring. Almost half of the nurses faced problems related to methodology. In case of quality of nursing research, it was found that, research findings have not been tried out in other similar settings to enhance its generalizability. Previous study showed that Implementation is not always related to the quality of the evidence. Weaker evidence may be implemented, while stronger evidence is neglected. [11] A study done in Egypt showed that majority of the nurses had a positive attitude toward new nursing techniques and barriers found that insufficient resources to implement EBP, difficulty in judging the quality of research articles and reports, insufficient time at work place to read research articles, also to implement change in their current practice, and inability to understand statistical terms used in articles. [13]

In the qualitative findings, it was found that, most of the nurses faced



problems related to Organizational Factor, Resource related problem, Knowledge and competency related problem and Communication problem. In organizational factor, Ethical constrain is found to be a major problem; whether resource related factors include all money, material and manpower issues. Paucity of literature is found one another major problem. Previous studies supported the findings of the present research study. [4,8,10] A study in China showed that the lack of authority was ranked as the top greatest barrier (15.7%), followed by the lack of time (13.4%) and language barrier (15.0%). Additional barriers identified were the reluctance of patients to research utilization, the lack of funding, and the lack of legal protection. [14] Another study showed barrier experienced in the SIM City was ethics approval difficulties. They suggest that many changes in the area of ethics review or approval is necessary to decrease barriers. The study also found that nurse-led research is not supported or viewed in the same manner as studies initiated by other disciplines. [1]

## CONCLUSION

The study result shows that, In India nurses faced barriers and challenges of conducting nursing research and communicating research findings into practice. Barriers are mainly related to poor organizational support, ethical constrains, resources, different opinion of experts on methodology, communicating findings into journal because of high payment, and lake of literature. But though nurses of India faced barriers to conduct a nursing research and implementing it, many of them disagree that they have lake of confidence in implementing it and do not have positive attitude towards it. In India biggest barrier is resource related where most of the nurses strongly agree. Nurses of India also strongly agree (35.5%) that research findings have not been tried out in other similar settings to enhance its generalizability.

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