

Original Research Article

A Study to Assess the Barriers to Utilization of Clinical Research among Nursing Fraternity in India

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ABSTRACT

Introduction: Despite the drive towards evidence-based practice, the extent to which research evidence is being implemented in nursing practice is unclear, particularly in developing countries. The purpose of study was to assess the barriers to utilization of clinical research among nursing fraternity in India.

Methodology: Cross sectional descriptive survey design was used. The study comprised of 170 samples and convenient sampling technique was used for data collection. Barrier scale was used to assess the barriers.

Results: The maximum age group in the research was 21-30 yrs that is 58.8%, while 37.6% samples were educators in the criteria of designation. Majority 56% of the respondents reported that the Values, Skills and Awareness of nurses and Settings, Barriers and limitations of organization were the major barriers to utilization of the clinical research, while 54 % of the subjects reported that Presentation and accessibility of the research to be the second most barrier, while 51.8 % subjects reported that Qualities of the research had a little barrier for the utilization of clinical research.

Keywords: barriers, utilization, clinical research, nurses.

INTRODUCTION

Research utilization is the use of research findings to support clinical decision-making. The process of using research is a situated behavior or practice enacted in the context of the social communities that give it life. Research-based information is read, discussed, critiqued, and potentially used in decision-making. Currently, the health sciences sanction research-based knowledge as the most legitimate form of knowledge and the evidence-based movement is testimony to this. The use of research as a basis for decision making is seen as being rational and objective, thereby leading to better clinical practice. Nursing is a profession that

is concerned with ensuring high quality of patient care and needs to continuously grow and expand its body of knowledge through research. Research however has been considered as an important strategy through which a discipline, especially nursing, can generate knowledge and utilizes it in maintaining its professional status and growth. Despite the drive towards evidence-based practice, the extent to which research evidence is being implemented in nursing practice is unclear, particularly in developing countries. ^[1]

Several studies have found that only few nurses are engaged in research which led to sluggish growth in nursing profession. ^[2] Increased knowledge and its use through

research empower the nurses to contribute positively to the care and ensure better health outcome for patients. [3]

The problem remains that there is a significant gap between nursing research and its application to practice. Nurses who are not engaged in evidence-based practice tend to routines and nursing rituals. Many of which are still practiced by some nurses in health care despite availability of research-based knowledge and interventions. [4] The gap between nursing research and practice has been associated with some barriers. These barriers have been analysed by both quantitative and qualitative studies in many countries.

Clinical practice without research application has no validation and is not desirable in nursing practice because nursing goal is to provide high quality nursing care which can be ensured through efficient application of nursing research findings.

The barriers have been proved to be similar across the globe. The barriers to utilization of research among registered nurses in India need to be identified so the gap can be reduced. Finding out the specific barriers for a certain unit may help administrative personnel implement structures and policies that can facilitate research use in a specified unit. [5]

PROBLEM STATEMENT

“A Study to Assess the Barriers to Utilization of Clinical Research among Nursing Fraternity in India”

Objectives

1. To assess barriers to utilization of clinical research among nursing fraternity in India.
2. To find association between barriers to utilization of clinical research and selected demographic variables.

Research Methodology

Research methods refer to steps, procedures and strategies for gathering and analyzing data in research involved. Research methodology is a way to systematically solve the research

problem. It is a science of studying how research is done scientifically. [6]

Descriptive evaluative approach with survey design was used. Total of 170 study subjects were selected through Delegates who are under graduate students were excluded from the study.

Research Approach: The researcher has adopted the Quantitative research approach.

Research Design: The researcher has adopted an Exploratory Descriptive design.

Setting of the Study: The study was conducted during the 15TH Annual National conference of Indian Society of Psychiatric Nurses organized at Krishna Institute Of Medical Sciences And Deemed Universities, Krishna Institute of Nursing Sciences Karad.

SAMPLE: The delegates were from various states of India.

Sample Size: The sample size selected for this study was 170.

Sampling Technique: The convenient sampling technique was used.

Sampling Criteria: The following criteria were set for the selection of sample:

Inclusive criteria:

1. Willing to participate in the study
2. Those were present during the data collection.

Exclusive criteria:

Under graduate students were excluded from the study.

Instrument Used for the Study

Barrier scale which is a structured questionnaire was used. Items were characteristics of the potential *adopter*, characteristics of the *organization* in which the research will be used, characteristics of the *innovation* or research, and characteristics of the *communication* of the research.

Data analysis

Data was analysed by using descriptive and inferential statistics by using licenced copy of statistical package SPSS 20 version.

The majority that is 58.8% samples was from age group of 21-30 years, and 37.6% samples were educators in the

criteria of designation. 50.6 % samples had obtained B.Sc. as the first degree whereas 57.6% had obtained M.Sc. as the highest

degree. 70 % samples had experience of 0-10 years.

Table No 1. Demographic Variables

Sr. No	Particular	Frequency	Percentage
Age	21-30yrs	100	58.8
	31-40yrs	28	16.5
	41 and above	42	24.7
	TOTAL	170	100.0
Designation	ADMINISTRATOR	6	3.5
	CLINICAL INSTRUCTOR	10	5.9
	EDUCATOR	64	37.6
	P.G.STUDENT	4	2.4
	P.G.STUDENT	54	31.8
	STAFF NURSE	32	18.8
	TOTAL	170	100.0
First degree obtained	BSC	86	50.6
	GNM	82	48.2
	ANM	2	1.2
	TOTAL	170	100.0
Highest degree	BSC	10	5.9
	GNM	18	10.6
	MSC	98	57.6
	PB.BSC	40	23.5
	Ph. D	4	2.4
	TOTAL	170	100.0
Experience	0-10 years	120	70.6
	10-20 years	30	17.6
	20 years and above	18	10.6
	TOTAL	170	100.0

Table No 2: Overall Description of Barriers to Utilization of Research

Sr.no	Factor	No extend		Little extend		Moderate extend		Great extend	
		F	%	F	%	F	%	F	%
1	Characteristics of Adopter	0	0	36	21.2	96	56.5	38	22.4
2	Characteristics of Organization	0	0	44	25.9	96	56.5	30	17.6
3	Characteristics of Innovations+	2	1.2	48	28.2	88	51.8	32	18.8
4	Characteristics of Communication	8	4.7	40	23.5	92	54.1	30	17.6

Table No 3: Characteristics of the Adopter (Research Value, Skills and Awareness) As Barriers to Research Utilization

SR NO	DESCRIPTION	Not Extend		Little Extend		Moderate Extend		Great Extend	
		f	%	f	%	f	%	f	%
1.	I do not see the value of research for practice.	24	14.1	34	20.0	56	32.9	56	32.9
2.	Little benefit of utilizing clinical nursing research for me.	34	20.0	50	29.4	56	32.9	30	17.6
3.	I am unwilling to change /try new ideas.	46	27.1	42	24.7	30	17.6	52	30.6
4.	There is not a documented need to change practice.	24	14.1	50	29.4	54	31.8	42	24.7
5.	I feel the benefits of changing practice will be minimal.	32	18.8	50	29.4	52	30.6	36	21.2
6.	I do not feel capable of evaluating the quality of the research.	18	10.6	64	37.6	56	32.9	32	18.8
7.	I am isolated from knowledgeable colleagues with whom to discuss the research.	32	18.8	42	24.7	50	29.4	46	27.1
8.	I am unaware of the research.	26	15.3	38	22.4	52	30.6	54	31.8

Majority 56.5% reported that there was moderate extend and 22.4% great extend while 21.2% had reported little extend barriers for utilization of clinical research as a Characteristics of Adopter. Majority 56.5% reported that there was moderate extend and 17.6% great extend while 25.5% had reported little extend barriers for utilization of clinical research as a (Settings, Barriers and limitations) of organization. Majority 51.8% reported that

there was moderate extend and 18.8% great extend while 28.2% had reported little extend barriers for utilization of clinical research for innovations and Majority 54.1% reported that there was moderate extend and 17.6% great extend while 23.5% had reported little extend barriers for utilization of clinical research for communications.

32.9 % of the respondent reported that they do not see value of research for

practice as moderate and great extent barrier for utilization of research while 32.9% see little benefit of clinical research for self as moderate extend 17.6% great extend barrier for utilization of clinical research.

30.6 % of the people are not willing to change or try new ideas as great extent barrier for utilization of research also 31.8 % said no documented need as moderate

extent barrier, 30.6 % felt minimal benefits of changing practice to be moderate extent barrier. 37.6 % were incapable of evaluating quality of clinical research to little extent whereas 29.4% were isolated from knowledgeable colleagues to moderate extent and 31.8% reported that they are unaware of the research.

Table No 4: Characteristics of the Organization (Barriers and Limitations) As Barriers to Research Utilization

SR NO	DESCRIPTION	Not extend		Little extend		Moderate extend		Great	
		F	%	f	%	f	%	f	%
1.	Administration will not allow implementation.	24	14.1	60	35.3	44	25.9	42	24.7
2.	Physicians will not cooperate with implementation.	34	20.0	54	31.8	56	32.9	26	15.3
3.	There is insufficient time on the job to implement new idea.	52	30.6	52	30.6	34	20.0	32	18.8
4.	Other staffs are not supportive of implementation.	24	14.1	64	37.6	58	34.1	24	14.1
5.	The facilities are inadequate for implementation.	34	20.0	54	31.8	44	25.9	38	22.4
6.	The nurse does not feel she/he has enough authority to change patients care procedures.	30	17.6	50	29.4	52	30.6	38	22.4
7.	The nurse does not have time to read research	18	10.6	72	42.4	58	34.1	22	12.9
8.	The nurse feels results are not generalizable to own setting.	18	10.6	60	35.3	52	30.6	40	23.5

Table No 5: Characteristics of the Innovations (Qualities of the Research) As Barrier to Research Utilization

SR NO	DESCRIPTION	Not extend		Little extend		Moderate extend		Great	
		F	%	f	%	f	%	f	%
1	The research has methodological inadequacies	26	15.3	50	29.4	76	44.7	18	10.6
2	The conclusions drawn from the research are not justified.	28	16.5	44	25.9	70	41.2	28	16.5
3	The research has not been replicated	36	21.2	50	29.4	52	30.6	32	18.8
4	The literature reports conflicting results.	30	17.6	62	36.5	48	28.2	30	17.6
5	The nurse is uncertain whether to believe the results of the research	34	20.0	56	32.9	52	30.6	28	16.5
6	Research reports/articles are not published fast enough	30	17.6	58	34.1	54	31.8	28	16.5

14.1 % reported that administration does not allow implementation as no extend barrier, 32.9% respondents reported that physicians do not co- operate with implementation as moderate extend barrier. 30.6% samples reported that there is insufficient time on the job to implement new ideas as moderate extend barrier.

37.6 % respondents reported that there is little extend barrier for other staff being non-supportive for implementation, 31.8 % reported inadequate facilities for implementation as little extend barrier, 30.6% respondents feel nurses do not have enough authority to change patients care procedure as moderate extend barrier.42.4% samples feel nurses do not have time to read research as little extend barrier and 30.3% felt results can't be generalized to own settings as little extent barrier.

44.7% respondents reported that research has methodological inadequacies as

moderate extend barrier, 41.2 % respondents reported that conclusions drawn from research are not justified as moderate extend barrier.

36.5% samples said literature reports have conflicting results as little extend barrier. 32.9 % reported of being uncertain whether to believe the results of the research as little extend barrier. 34.1% feels that research or reports articles are not published fast enough as little extend barrier for utilization of clinical research.

Majority of the respondents that is 40 % reported that implication of practice are not made clear as moderate extend of barrier. 41.2% reported that research reports and articles are not readily available as moderate extend barrier while 34.1% feel that the research is not reported clearly and readably being moderate extend barrier.

Table No 6: Characteristics of the Communication (Presentation and Accessibility of the Research) As Barrier to Research Utilization

SR NO	DESCRIPTION	Not extend		Little extend		Moderate extend		Great	
		F	%	f	%	f	%	F	%
1.	Implications for practice are not made clear.	40	23.5	36	21.2	68	40.0	26	15.3
2.	Research reports/articles are not readily available.	34	20.0	44	25.9	70	41.2	22	12.9
3.	The research is not reported clearly and readably.	38	22.4	34	20.0	58	34.1	40	23.5
4.	Statistical analyses are not understandable.	34	20.0	58	34.1	60	35.3	18	10.6
5.	The relevant literature is not compiled in one place.	32	18.8	50	29.4	54	31.8	34	20.0
6.	The research is not relevant to the nurses' practice.	46	27.1	44	25.9	58	34.1	22	12.9

35.3% samples feel that the statistical analysis is not understandable as moderate extend barrier. 31.8% samples reported that relevant literature is not compiled in one place as moderate extend barrier. 34.1% feel that research is not relevant to the nurse practice as moderate extend barrier to utilization of clinical research.

Association with Demographic Variables

There was significant association between age and characteristics of adopter, characteristics of the organization, characteristics of the innovation and characteristics of the communication in which majority of the respondents from age group of 21- 30 years responded as moderate extend barrier.

There was significant association between education and characteristics of the communication of which majority of the respondents were post graduates as moderate extend barrier.

There is significant association between experience and characteristics of the organization of which majority of the respondents have 0-10 years' experience who responded characteristics of the organization which includes settings, barriers and limitations as moderate extend barrier.

There was significant association between experience with characteristics of the innovation and characteristics of the communication of which majority of the respondents have 0-10 years' experience who responded characteristics of the innovation as moderate extend barrier.

DISCUSSION

The study revealed that most of the items in barrier scale were rated as moderate

or great extend barrier in all 4 categories and similar findings were seen in the study conducted by Wai Tong Chien in China. ^[1]

In this study, it was seen that the greatest barrier to utilization of clinical research was Characteristics of organization and Characteristics of adopter and characteristics of organization was found to be the greatest barrier in study conducted by Heather Diane Schoonoves in May 2006 in Washington. ^[7] The similar findings were seen in study conducted by Nwozichi Chinomso, Ojewole in Nigeria, ^[8] which supports the findings of this study that characteristic of organization is the greatest barrier to utilization of clinical research.

More than 50 % of samples said they do not see the value of research with little benefit for utilization and self, incapability to evaluate research, being isolated from knowledgeable colleagues and lack of awareness were moderate to great extend barrier. Unwillingness to change was said to be great extend barrier.

Maximum samples reported that administration does not allow implementation, lack of co-operation from physicians, lack of time, inadequate facilities and lack of generalisation ability of results were little to moderate extend barrier.

Majority of samples said inadequacies in research methodology, inappropriate conclusions and lack of replication were moderate extend barrier while conflicting literature, uncertainty to believe research results and late publication were found to be little extend barrier. The findings were supported Rogers. ^[9] Majority of the samples reported unclear implications for practice, unclear research reports, poor statistical understanding, wide distribution

of relevant literature and irrelevance of findings to practice were found to be moderate extend barrier while availability of research articles readily was little extend barrier.

CONCLUSION

The barriers for utilization of research in nursing reported were the Values, Skills and awareness of nurses and Settings, Barriers and limitations of organization were the major barriers to utilization of the clinical research, while 54 % of the subjects reported that Presentation and accessibility of the research to be the second most barrier, while 51.8 % subjects reported that Qualities of the research had a little barrier for the utilization of clinical research.

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