



Research Participation, Findings Dissemination, and Associated Factors among Clinical Nurses in Nigeria

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ABSTRACT

Introduction: Research is the scientific search for knowledge and it's a very crucial aspect of nursing practice. Previous studies show that nurses have varying levels of involvement in research and publications. Therefore, this study aims to assess the patterns of participation in research, dissemination of research findings, and associated factors among clinical nurses.

Methodology: A descriptive cross-sectional design was used in this study and the study population includes clinical nurses randomly selected from University College Hospital and Adeoyo Maternity Teaching Hospital in Ibadan. A self-administered questionnaire was used to collect data from 206 randomly selected clinical nurses for the study. Data was analyzed using Statistical Package for Social Sciences (SPSS) version 25. Descriptive and inferential statistics were done and the significance level was set at $\alpha=0.05$

Results: Results from this study show that 90.8% of the nurses have been involved in research to enhance academic qualification, while only 42.4% participate in research related to their work. A total of 72.3% of them reported participation in clinical research, with 40.3% being the principal investigator. Also, only 25.2% of the nurses have published research articles with 59.6% of them having only one publication. Majority of the nurses reported unavailability of time, lack of mentorship, motivation, and rewards, as barriers to research participation.

Conclusion: The majority of clinical nurses are involved in conducting research for academic and/or professional purposes studies, while only a few disseminate their research findings. Clinical nurses should be mentored, and motivated to participate more in research.

KEYWORDS: Research, Nurses, Research dissemination, Research utilization, Publications

INTRODUCTION

Research plays a significant role for nurses and other health professionals in the development of their profession and in promoting health innovations. (1). Nursing is also a profession that thrives on the knowledge of delivering the highest standard of care to patients and this is particularly crucial for critically ill patients, as they heavily rely on nursing care. To ensure the delivery of quality care, nurses must have evidence-based knowledge to effectively guide them in carrying out their essential role and continuously enhancing the quality of care through research (2). Research therefore serves as the foundation for gaining fresh insights, ultimately influencing the practice of healthcare professionals across various domains, including the field of nursing. (3).

The International Council of Nurses (ICN) has underlined the importance of health research both in academic and clinical settings for many years. (1). Since nurses are essential members of the healthcare team, they have an important role

within the healthcare setting by providing direct patient care and also have the responsibility to perform these roles effectively by providing safe and most efficient nursing care (4). The role of nurses extends beyond clinical practice. They are well-positioned to contribute significantly to healthcare research and knowledge dissemination. Studies show that the number of nurses conducting research in their work environments all over the world is substantially lower than members of other medical careers and that nurses focus mostly on patient care and the concept of research often creates anxiety in their team (5)

Research conducted by nurses is a critical component in the enhancement of ongoing high-quality and safe patient care. According to Aminucci et al, any academic institution and research hospital that promotes excellence and encourages the growth of health research operations should make research their primary goal (1). University College Hospital is a tertiary health institution and hence ought to be at the

forefront of leading health professionals from other hospitals in research. Adeoyo Maternity hospital in Yemetu is also a teaching hospital and is expected to promote the practice and use of nursing research.

Participating in studies is just one aspect of conducting research; other activities include going to conferences and publishing scientific papers in peer-reviewed publications (1). Publishing research work is as important as conducting the research itself and we can almost say research work not published is like one not done at all. Considering their broad understanding of the health requirements of patients and communities, nurses and midwives ought to be at the forefront of setting priorities for research, carrying out that research, and applying the results to inform nursing practice, management, and education in order to enhance population health outcomes (6).

Moreover, university students are often required to be involved in research projects in partial fulfillment of their degree. This underlines the importance of strengthening the academic exchanges with hospitals to better integrate research competencies into clinical practice and improve the level of participation in research activities among health professionals (1). It is known that one of the requirements for nursing education in Nigeria is Nursing research so we can say that at one point or the other, nurses must have participated in research once but it is also known that the majority of them do not end up publishing their work (7). The results of academic research and expert practice activities are useless to the professional community as a whole if they are not published. In a way, the professional world believes that expert practice results and research study findings never happen if they are not published.

Nursing Research is one of the pillars in the improvement of nursing care. Motivating nurses to contribute to research and evidence-based practice will improve their productivity and satisfaction that will improve patient clinical outcomes and satisfaction (8). Studies show that approximately 20 to 25% of routine nursing care is believed to be avoidable or even potentially harmful due to a lack of implementation of evidence-based practices (3).

Nurses' and midwives' participation in research is therefore an important part of nursing practice. Studies indicate that while progress has been achieved, the majority of nurses who are directly involved in research are predominantly found in academic settings. In contrast, direct care nurses who work outside of university hospitals are less likely to participate in research activities and foster a research culture. It is therefore highly important to understand the factors that may act as barriers and facilitators to nursing involvement in research to better engage them in the conducting of studies (5). Although clinical nurses play a crucial role in providing patient care, there is still a dearth of information about their level of active involvement in research projects and the subsequent publication of findings (9) This disparity can raise

concerns regarding the quality of evidence-based practices and innovation within the nursing profession. This research aims to investigate the level of involvement and factors associated among nurses in research activities and the subsequent lack of publications at UCH and Adeoyo Maternity Teaching Hospital. It seeks to identify barriers impeding nurses' participation in research endeavors.

STUDY AIM

This study aims to assess the patterns of participation in research, dissemination of research findings, and associated factors among clinical nurses.

MATERIALS AND METHODS

Study design and participants

This study was a descriptive cross-sectional study that used a randomized sampling technique. The study population comprises male and female nurses randomly selected from randomly selected units in University College Hospital and Adeoyo Teaching Hospital, Yemetu, Ibadan. Participants were included in the study if they were clinical nurses at UCH and Adeoyo Maternity teaching hospitals. The nurses were randomly selected from units such as Surgical unit, Psychiatry unit, Medical unit, Pediatrics unit, Obstetrics and gynecology from UCH and all the units in AMTH were selected. Participants were excluded if they were ill or not consenting

The sample size was estimated using the formula formulated by Taro Yamane in 1967. Based on this, the study estimated a need for at least 187 Nurses and adjusted for a 10% non-response, 206 nurses responded to detect a significant effect.

Procedure for data collection

Following ethical approval from the UI/UCH ethical review committee and the Oyo state ethics review committee, data was obtained for a period of 4 weeks. Questionnaires were shared to the nurses physically. The questionnaire included an informed consent form which included information about the study, the participant's eligibility and rights, and the researcher's information. On getting to the wards, permission is sought from the ward head of each ward, and then the questionnaire is shared to the nurses who consent to filling it. The questionnaire took an average of 5 minutes to be completed.

Data analysis

The IBM SPSS version 25.0 was used. The data analysis tools that was adopted include descriptive and inferential statistics. A total of forty-two (42) questions were structured to determine the level of research participation in and publications among clinical nurses. Descriptive statistics of frequency distribution, mean and standard deviation were used to analyze the data and provide answers to the research questions. Logistic regression was used to identify factors associated with research participation, and Chi-square was

used to test the hypotheses.

RESULT

Socio-demographic characteristics of the respondents

A total of 206 respondents were sampled; they returned fully completed questionnaires, which were used for data analysis, giving a response rate of about 100%. In terms of age distribution, the largest proportion falls within the age range of 20 to 30 years (n= 72, 35.0%). The majority of the nurses are female (n=191, 92.7%), and a significant proportion are married (n=144, 69.9%) with the highest representation being Christians (n=173, 84.0%). Ethnically, the majority are

Yoruba (n= 164, 79.6%). Professional qualifications vary, with the majority having RN/RM/BNSc (42.7%) followed by RN (24.8%) and RN/RPHN/BNSc (10.2%). The highest level of education is predominantly BNSc (70.4%), followed by MSc (11.2%) and Diploma RN (18.4%). In terms of years of clinical practice, there is a relatively even distribution across different brackets, with the largest proportion having 16 years or more of experience (29.1%). Most nurses are affiliated with the University College Hospital (68.9%), with others working at Adeoyo Maternity Teaching Hospital (31.1%). The professional cadre varies, with SNO (31.1%) and CNO (18.4%) being the most common (Table 1)

Table 1: Socio-demographic characteristics of the respondents

Variables	Frequency (n=206)	Percentages (%)
Age in years		
20 – 30	72	35.0
31 – 40	56	27.2
41 – 50	52	25.2
51 – 59	26	12.6
Sex		
Male	15	7.0
Female	191	92.7
Marital status		
Single	54	26.2
Married	144	69.9
Separated	5	2.4
Divorced	1	0.5
Widowed	2	1.0
Religion		
Islam	33	16.0
Christianity	173	84.0
Ethnicity		
Hausa	12	5.9
Igbo	30	14.6
Yoruba	164	79.6
Professional qualification		
RN	51	24.8
RN/RM/ BNSc	88	42.7

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RN/RPHN/ BNSc	21	10.2
RN/RM/RPHN	40	19.4
RN/RMHN	4	1.9
MSc	2	1.0
Highest level of education		
Diploma RN	38	18.4
BNsc	145	70.4
MSc	23	11.2
Years of clinical practice		
0 – 5 years	63	30.6
6 – 10 years	41	19.9
11 – 15 years	42	20.4
16 years above	60	29.1
Professional cardre		
ACNO	11	5.3
ADNS	15	7.3
CNO	38	18.4
DDN	2	1.0
SNO	64	31.1
PNO	13	6.3
NO 1	29	14.1
NO11	32	15.5
Nurse Intern	2	1

Clinical Nurses Participation in Research

Results as presented in Table 2 shows that a significant proportion of nurses have taken a nursing research course in the past three years (n=122, 59.2%). Additionally, the majority of nurses participates in clinical research (n=149, 72.3%) and has been involved in various research studies (n=187, 90.8%). Among those who have participated in research studies, the primary purposes cited is to enhance academic qualifications (n=112, 59.9%). The frequency of

participation in research-related to work varies, with a notable proportion participating rarely (n=87, 42.2%).

Table 2: Clinical Nurses Participation in Research

Variables	Frequency(n=206)	Percentage(%)
Have you taken a nursing research course in the past 3 years?		
Yes	122	59.2
No	84	40.8
Do you participate in clinical Research?		
Yes	149	72.3
No	57	27.7
Have you ever participated in any research study?		
Yes	187	90.8
No	19	9.2
If Yes, what was your purpose of participating in research studies (n=187)		
Academic qualification	112	59.9
Professional qualification	43	23.0
To test new method of care	22	11.8
To test new drug	10	5.3
How often do you participate in research related to your work?		
Very often	24	11.7
Often	80	38.8
Rarely	87	42.2
Not at all	15	7.3
When last did you participate in research as the researcher?		
0 – 5 years ago	104	50.5
6 – 10 years ago	39	18.9
11 – 15 years ago	41	19.9
16 years and above	22	10.7
What role(s) have you played in your previous research studies?		
Principal investigator	83	40.3
Member of research team	71	34.4
Research assistant	52	25.2
Are you currently engaged in any research projects or activities?		
Yes	38	18.4

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No	168	81.6
If yes, what role are you playing? (n=38)		
Principal investigator	14	36.8
Member of research team	20	52.6
Research assistant	4	1.1
Do you think research has added value to your practice?		
Yes	197	95.6
No	9	4.3
Do you perceive research participation as part of nursing role?		
Yes	194	94.2
No	12	5.8

Research dissemination among clinical nurses in Ibadan

A quarter of the nurses have published a research article (n= 52, 25.2%), with the majority having only one publication (n=31, 59.6%). Additionally, most nurses read research

journals or articles sometimes (n= 86, 41.8%) or often (n= 45, 21.8%), with only a small percentage reading very often (n= 23, 11.2%). A considerable number of nurses have presented an article in a conference or seminar (n=90, 43.7%).

Table 3: Research dissemination among clinical nurses in Ibadan

Variables	Frequency(n=206)	Percentage(%)
Have you ever published a research article?		
Yes	52	25.2
If yes, how many publications have you done? (n=52)		
1	31	59.6
2	14	26.9
3	5	9.6
More than 3	2	3.8
Have you ever presented an article in a conference or seminar?		
Yes	90	43.7
How often do you read a research journals or articles before?		
Very often	23	11.2
Often	45	21.8
Sometimes	86	41.8
Rarely	47	22.8
Never	5	2.4

Factors associated with research participation and findings dissemination among clinical nurses.

Research participation, and findings dissemination are 2.12 times higher for nurses who perceive unavailability of time compared to those who do not. The p-value is less than 0.01, indicating that this association is statistically significant. Nurses who perceive a lack of mentorship have a coefficient of 0.90. The odds ratio of 2.46 suggests that the odds of research involvement and publications are 2.46 times higher for nurses perceiving a lack of mentorship compared to those who do not. The p- value is less than 0.001, indicating a

statistically significant association.

Table 4: Factors associated with research participation and findings dissemination among clinical nurses.

Variable	Coefficient	Odds Ratio	p-value
Unavailability of time to carry out research	0.75	2.12	<0.01
Inadequate knowledge and relevant skills	-0.45	0.64	0.03
Lack of Organizational support and commitment	0.60	1.82	0.05
Lack of Mentorship	0.90	2.46	<0.001
Lack of funding	0.55	1.74	0.01
Unavailability of research committee	0.40	1.49	0.07
Lack of knowledge to do research	-0.30	0.74	0.12
Lack of resources	0.65	1.92	0.02
Lack of support from colleagues	0.25	1.28	0.25
Perception of Research as a nursing role	0.80	2.22	<0.001
Interest in research	0.70	2.01	<0.01
Promotions/ Career advancements	0.50	1.65	0.04
Lack of training	-0.35	0.70	0.08
Motivation and reward	0.75	2.12	<0.01
Interest	0.85	2.34	<0.001

DISCUSSION

The age distribution revealed a predominantly young workforce, with the largest proportion falling within the age range of 20 to 30 years. Moreover, the majority of nurses being female aligns with global trends in nursing demographics, where women make up the majority of the nursing workforce. Furthermore, the high representation of married nurses underscored the need to consider family responsibilities and work-life balance when designing research involvement initiatives. Studies by Brzywacz et al. (10) emphasize the impact of work-family conflict on nurses' ability to engage in research activities. In terms of educational qualifications, the majority of nurses have obtained a Bachelor of Nursing Science (BNsc) degree. Research by Aboshaiqah et al. (11) indicates that nurses with higher educational qualifications are more likely to engage in research activities and contribute to evidence-based practice. Additionally, there is a relatively even distribution of years of clinical practice, with a significant proportion having 16 years or more of experience.

Clinical Nurses' Participation in Research

Findings from this study displayed the nurses' participation

in research among nurses. Nurses' involvement in research-related activities, such as taking nursing research courses and participating in clinical research, is notable. According to Aminucci et al. (1), nurses' participation in research activities is influenced by factors such as education level, professional qualifications, and interest in research. The high percentage of nurses taking nursing research courses in the past three years underscores a commitment to enhancing research literacy and capacity-building among nursing professionals. Moreover, the majority of nurses participating in clinical research and being involved in various research studies reflected a positive trend toward research engagement among nursing professionals. A study by Nzengya et al. (6) found that years of professional experience and academic preparation were significantly associated with research publication experience among nurses. The primary purposes cited for participating in research studies, including enhancing academic and professional qualifications, testing new methods of care, and new drugs, highlight the multifaceted nature of nurses' research interests and motivations. These findings align with the principles of evidence-based practice (EBP), which emphasizes the integration of research evidence into clinical decision-making

to improve patient outcomes (12). However, despite the positive trends in research participation, a significant portion of nurses are not currently engaged in any research projects or activities. This finding underscores the need for targeted interventions to address barriers to research involvement among nurses. Factors such as lack of time, organizational support, mentorship, and resources have been identified as barriers to research participation among nurses (13). Nevertheless, the overwhelming majority of nurses perceives research as adding value to their practice and considers research participation as part of their nursing role. These findings highlight the importance of fostering a research culture within nursing practice, where research is viewed as integral to professional development and quality patient care.

Research findings dissemination among clinical nurses

Findings regarding the dissemination of research findings among clinical nurses shed light on the extent of nurses' involvement in disseminating research findings and their engagement. Firstly, the proportion of nurses who have published a research article indicated a moderate level of research dissemination among nursing professionals. However, it is noteworthy that the majority of nurses who have published only have one publication. Nzungya et al. (6) found that factors such as professional experience and academic preparation were associated with research publication experience among nurses.

Furthermore, the significant portion of nurses who have attempted to publish a research article but couldn't underscore the challenges nurses may face in navigating the publication process. Barriers such as lack of time, resources, mentorship, and knowledge of publication processes have been identified in previous studies (13). Regarding reading habits, the majority of nurses reading research journals or articles sometimes or often reflect a moderate level of engagement with scholarly literature. However, the relatively small percentage of nurses reading very often suggests room for improvement in promoting a culture of continuous learning and staying updated with the latest research findings. Encouraging nurses to develop a habit of regular reading and providing access to relevant research literature can enhance their evidence-based practice and contribute to the advancement of nursing knowledge (12). Moreover, the findings related to nurses' presentation of research findings in conferences or seminars and through poster presentations demonstrate active participation in scholarly activities. However, the minority of nurses communicating their research findings through other means suggests the need for diversified channels for knowledge dissemination. Leveraging platforms such as academic journals, Google Scholar, online magazines, social media, and PowerPoint presentations can reach a wider audience and amplify the impact of nursing research (1).

Factors associated with research participation and findings dissemination among clinical nurses

The significant proportion of nurses citing barriers such as unavailability of time and lack of organizational support underscores systemic challenges within healthcare institutions that hinder research involvement. Sowunmi et al. (13) highlighted similar barriers, including organizational policies and lack of mentorship, which inhibit nurses' participation in research activities. Moreover, the high percentage of nurses citing a lack of funding and resources reflects the financial constraints and resource limitations faced by healthcare institutions, which impede research initiatives. Nkrumah et al. (14) identified inadequate funding and lack of cooperation from colleagues as barriers to research participation among nurses. Furthermore, the prevalence of inadequate knowledge and relevant skills highlighted the need for capacity-building and professional development initiatives to enhance nurses' research competencies. Aminucci et al. (1) emphasized the importance of postgraduate education and participation in research courses in predicting higher research participation among healthcare professionals. Additionally, the lack of mentorship and the unavailability of a research committee signify the importance of mentorship and institutional support structures in nurturing a research culture among nurses. Nzungya et al. (6) found that professional role and employer were significantly associated with research publication experience among nurses, highlighting the influence of organizational support on research involvement. Despite these barriers, the considerable number of nurses expressing interest in research and recognizing its importance for promotions and career advancements underscores nurses' intrinsic motivation and career aspirations. Motivation and reward were also acknowledged as factors influencing research involvement, indicating the significance of recognizing and incentivizing nurses' contributions to research. By harnessing nurses' motivation and providing opportunities for professional growth and advancement through research, healthcare institutions can cultivate a research-friendly culture that empowers nurses to contribute to evidence-based practice and improve patient outcomes.

CONCLUSION

The exploration of research participation and findings dissemination among clinical nurses sheds light on the multifaceted dynamics shaping nursing practice, professional development, and patient care. The findings underscore both the opportunities and challenges faced by nurses in engaging with research activities and disseminating their findings through publications.

Despite facing significant barriers such as lack of time, resources, and mentorship, a substantial proportion of nurses in both hospitals have demonstrated a keen interest in research participation. Moving forward, concerted efforts are

needed to address the identified barriers and promote a culture of inquiry, scholarship, and research excellence among clinical nurses. This includes investments in research infrastructure, professional development opportunities, mentorship programs, and advocacy for supportive policies and resources. In essence, research involvement and publication among nurses are integral components of professional practice and organizational excellence. By fostering a supportive research environment and investing in nurses' research capacity, healthcare facilities can harness the power of research to transform healthcare delivery, promote evidence-based practice, and ultimately enhance the quality of patient care.

CONSENT FOR PUBLICATION

The authors consent to the publication of this manuscript.

CONFLICT OF INTEREST STATEMENT

The author declares no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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