

Nurses and Use of Research Information in Clinical Practice: a Case Study of the University Teaching Hospital in Zambia

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Introduction

- **Zambia recognises health as one of the priority sectors that contribute to the well-being of the nation.**
- **In Zambia, nurses form the largest group of health workers as is the case in the whole of Africa and the World.**
- **Health information systems are one of the major challenges the country is faced with and this includes access and usage of information by nurses.**
- **The quality of information that nurses demand and how effectively they evaluate and use it for clinical decision making may influence patient outcomes and ultimately, the part nurses play in the delivery of health care.**
- **Therefore, nurses need Evidence Based Information for effective patient care and better patient outcomes.**
- **Generally, Nursing practice is information intensive; nurses need to familiarise themselves with high quality research to help them make justifiable decisions in clinical practice**

Study Context

- The University Teaching Hospital (UTH) is the biggest public tertiary hospital in Zambia. UTH is located in the capital city of Lusaka.
- Built in 1910 in the colonial period, it was only meant for sick Africans who were only cared for by male orderlies as the hospital had no doctors and nurses.
- UTH attends to over 70,000 patients per quarter with 20,000 admissions. Further approximately 5,000 babies are born in the same period.
- Has a high disease burden and a lot of complicated cases, health challenges and therefore, this makes it more appropriate as a study site because most information needs for Evidence Based Practice (EBP) may be required by nurses and other professionals in such a situation.
- Has an occupancy rate of 82%, reflective of a high disease burden. The hospital has approximately 1,655 beds and 250 baby cots.
- Provides a full range of primary, secondary and tertiary health and medical services on both out patients and inpatients (UTH, 2015).
- UTH is also the teaching hospital (i.e. practice site) for the University of Zambia School of Medicine.

Objectives of the study

Main Objective of this Study:

- Investigate nurses' use of research information in their clinical practice.

Specific Objective:

- Investigate the extent to which research information is used in clinical practice by nurses at the University Teaching Hospital Lusaka, Zambia.

Statement of the Problem

- Some institutions, organisations and libraries have developed extensive databases and services that are being used by health professionals, clinicians, and educators to access health information.
- Recognising the need for information, UTH through the University of Zambia School of Medicine, Medical Library and the UTH School of Nursing Library provides information to nurses and other professionals. Moreover, with the advancement of technology, the internet is one way which offers novel tools for providing information to health professionals.
- Despite all the growing availability of high quality research information and a strengthening focus on evidence based practice by policy makers the world over, nurses and other healthcare practitioners, have been slow to adopt research evidence into their daily decision-making (Buchan, 2004).
- Despite these global concerns and the professed benefits that come with the use of research information by nurses in clinical practice, the research output of the nursing profession in Zambia remains low.
- From the review of literature, it has been observed that, the use of research information by nurses in clinical practice in Zambia has not been reported or is not known.
- Due to this gap in knowledge, it is not known if nurses in Zambia utilise research information in clinical practice. It is against this background that this study explored the use of research information by nurses in clinical practice in Zambia, using the University Teaching Hospital (UTH) as a case study.

Rationale

- Due to the high disease burden, nurses in Zambia have a huge role to play in the delivery of health care in the country.
- There is need therefore, for nurses to use research information in clinical practice and to effectively use strategies for extracting relevant information from the many publications that are available.
- The quality of information that nurses demand and how effectively they evaluate and use it for clinical decision making may influence patient outcomes and ultimately, the part nurses play in the delivery of health care.
- Nursing practice is information intensive; the rapid growth of information means that nurses cannot rely on information acquired as students and must constantly update their practice (Royle and Blythe, 1998).
- It is for this reason that nurses need to familiarise themselves with high quality research to help them make justifiable decisions in clinical practice and therefore necessary for a study such as this one.

Theoretical Framework

- ***Wilson's model of information seeking behaviour laid the framework for the study:***
 - Explains the information need context and the person in context who is the nurse.
 - Incorporates the activating mechanisms which help in comprehending why nurses may use certain sources of information and not others.
 - Elaborates that information may be sought when there is a problem or high level of uncertainty while helping the information seeker to cope with the stress.
 - Points out that intervening variables are either facilitators of or deterrents of information seeking and use.
 - Elucidates that Information Seeking Behaviour could be passive intention, passive search, active search and ongoing search while describing the information process and use.

Methodology

- Case study that utilised both qualitative and quantitative methods of data collection.
- Conducted in four admission wards namely; Maternity, Medical, Paediatric and Surgical.
- Target population was practicing nurses at the University Teaching Hospital.
- Purposive sample of 60 practicing nurses.
- Main instrument used to collect data was the questionnaire.
- Quantitative data was analysed using SPSS version 20.
- Qualitative data was analysed thematically.

Delimitations of the Study

- Limited to the University Teaching Hospital Medical Admission Ward, Maternity Admission Ward, Paediatric Admission Ward and Surgical Admission Ward only.
- Only Nurses with one year work experience.
- Therefore, the findings might not be applicable to other hospitals.
- However, the interest of the study was to understand the depth and in detail, the context of the case of nurses' use of research information in clinical practice at the University Teaching Hospital

Findings of the Study

Response Rate

Out of the total number of 60 questionnaires sent out, 57 were returned from the respondents, representing a response rate of 95%.

The good response rate could be attributed to constant follow ups by the researchers.

Questionnaires were distributed to UTH nurses in the following wards; in Medical Admission (10; 18%), Surgical Admission (15; 26%), Maternity Admission (15; 26%) and Paediatric Admission (17; 30%) wards.

The majority of respondents came from the Pediatric Ward while the least came from Medical Admission Ward.

Fig. 2: Study Respondents

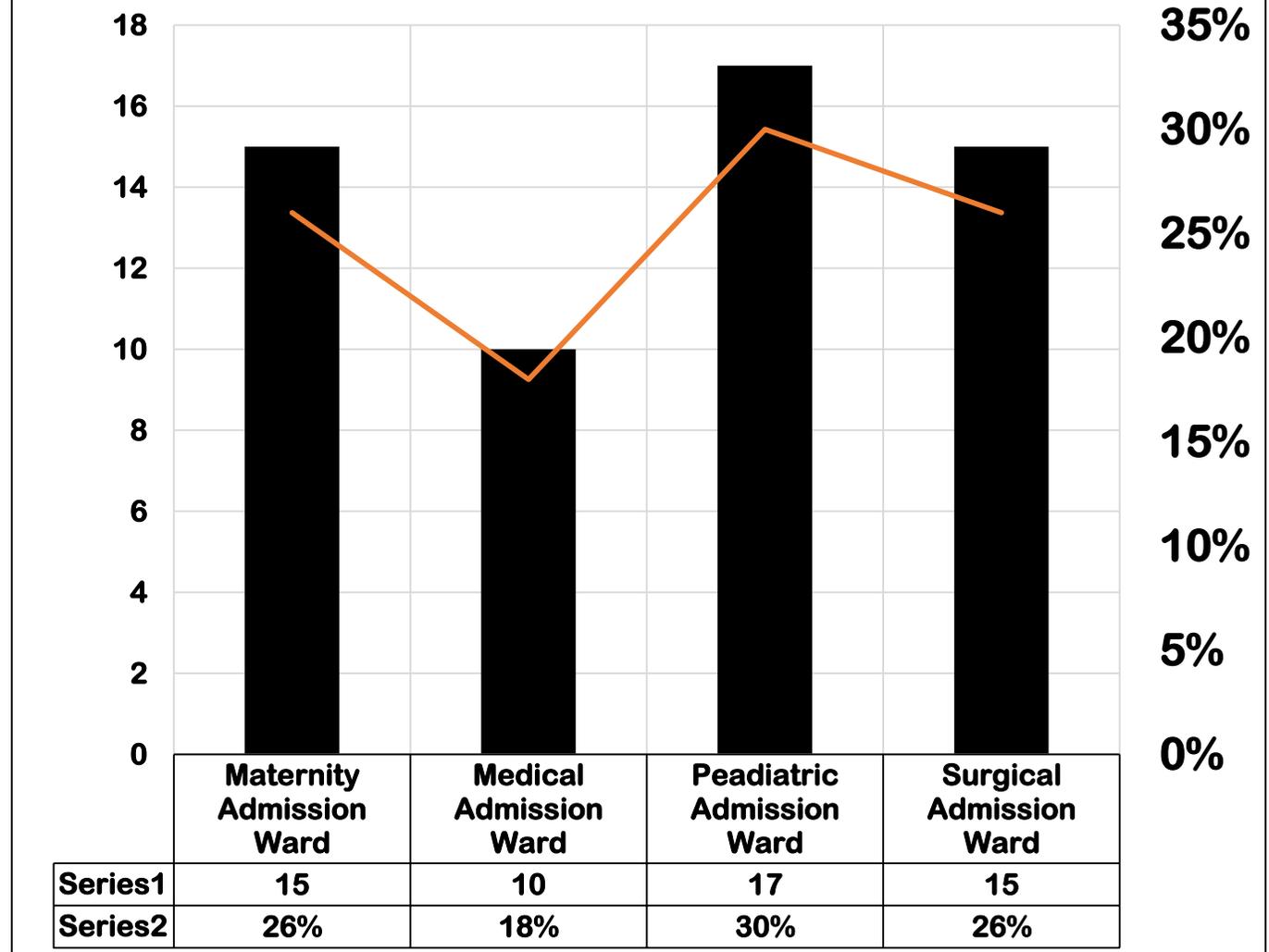


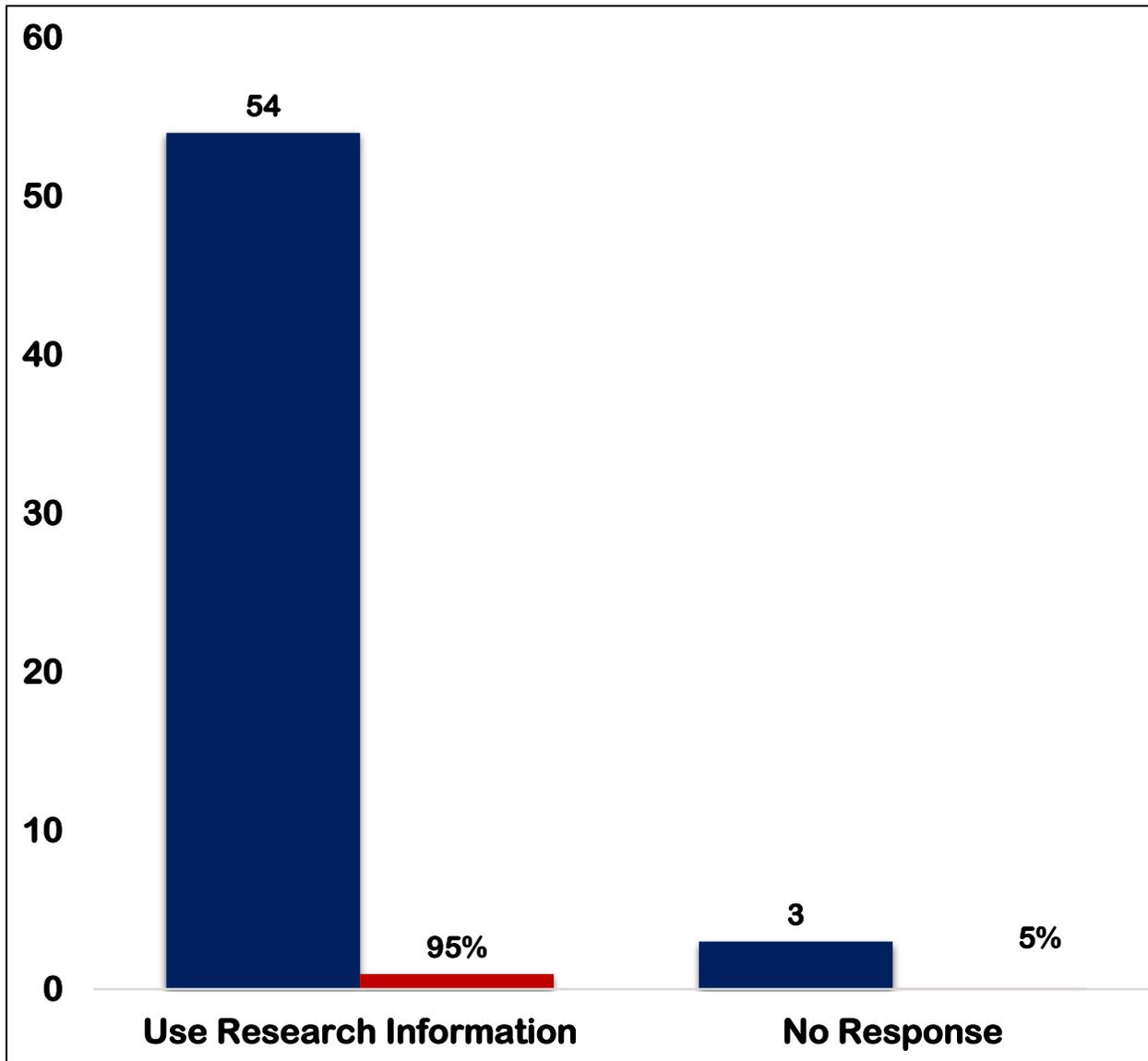
Table 1.: Characteristics of Respondents

Variable	Values	Frequency (n=57)	%
Gender	Male	13	22.8
	Female	44	77.2
Total		57	100
Age	20-25yrs	15	26.3
	26-35yrs	31	54.4
	above 35yrs	11	19.3
Total		57	100

Table 1: Background Characteristics of Respondents

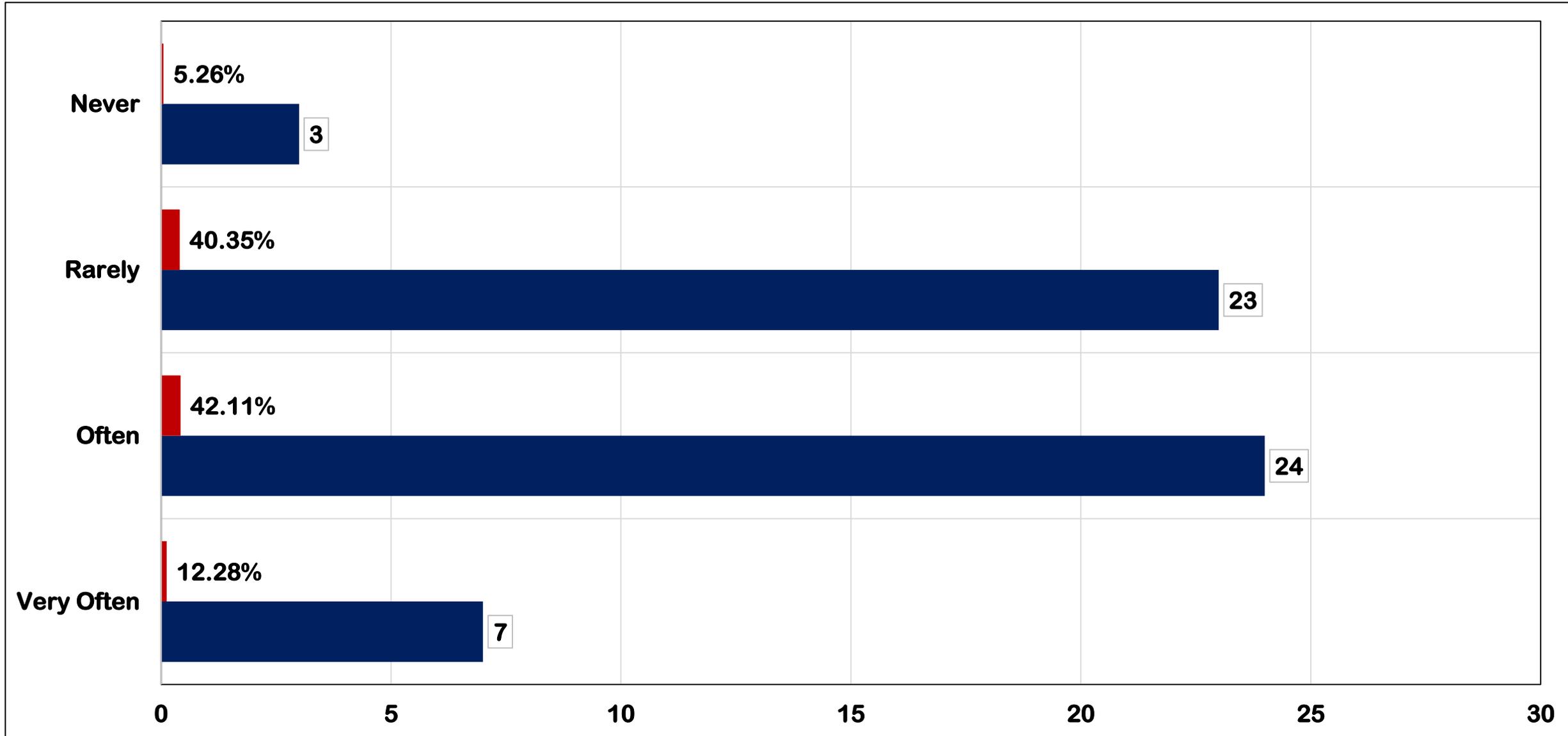
Variable	Values	Frequency (n=57)	%
Work experience	2-4yrs	26	45.6
	5-9yrs	19	33.3
	above 9yrs	12	21.1
Total		57	100
Professional qualifications	Zambia Enrolled Nurse	15	26.3
	Zambia Registered Nurse	23	40.4
	Zambia Enrolled Midwife	8	14.0
	Zambia Registered Nurse Midwife	9	15.8
	Bachelor of Science Nurse	2	3.5
Total		57	100

Fig 1. Use Research Information in Clinical Practice by Nurses



- Respondents were asked if at all they used research information in clinical practice;
- And the results show that 54 (95%) indicated that they used research information in clinical practice.
- A total of 3 (5%) did not indicate the extent to which they used research information in their practice.

Fig.2. Frequency of Use of Research Information in Clinical Practice by Nurses



Work Experience, Role, Professional Qualifications & Nurses' Use of Research Information in Clinical Practice

- Further analyses were conducted to establish whether work role, work experience and professional qualifications had an association regarding nurses' use of research information in clinical practice.**
- Fishers' Exact test was used to answer this question, at a significance level of 0.05.**
- The results were not significant in all the three situations.**
- i.e. Nurses' use of research information in their clinical practice was not associated with work experience, role and professional qualifications.**

Discussion of the Research Findings

Use Research Information in Clinical Practice by Nurses

- The results show that indeed a significant number of the nurses (95%) did use research information in their clinical practice. The results are very encouraging.
- In Nigeria 91.0% of the nurses perceived research as very important in promoting quality healthcare (Adejumo and Guobadia, 2013).
- In Kenya a study found that 20.6% of the nurses were participating in research related to their work and 53.6% of these were utilising that research in their clinical practice.
- In Nigeria another study of nurses found that the “majority of the study respondents 74 (61.7%) agreed that they had utilised research findings in their practice, while 38 (31.7%) confessed they did not and 8 (6.6%) were not sure if they had utilised research findings before (Asuquo, 2013).
- Use of research information has been considered the gold standard in the provision of quality patient care (Brown et al., 2009); because it increases the probability of desired health outcomes for patients (IOM, 2013).

Discussion of the Research Findings Cont...

Frequency of Use of Research Information in Clinical Practice by Nurses:

- The study established that 54 (94.74%); [**very often 7(12.28%) + Often 24 (42.11%) + rarely 23 (40.355)**] of respondents used research information in their clinical practice.
- This result seems to suggest a high usage of research information by nurses in clinical practice – ***what differs is the degree of frequency of use.***
- It is important to note that, for information to be used, it must be available, accessible, and usable, and absorbed by the recipients of the information (Wagacha, 2007).
- Research utilisation in nursing practice is a mechanism to help improve the existing practices and the quality of health care

Discussion of the Research Findings Cont...

- **Work Experience, Role, Professional Qualifications & Nurses' Use of Research Information in Clinical Practice:**
 - Fishers' exact test was conducted to establish if there was an association between work role, work experience and professional qualifications.
 - The study established that nurses' use of research information in clinical practice was not associated with work roles, experience and professional qualifications.
 - Meaning that work experience, professional qualification and work role did not have any significant effect on the use of research information in clinical practice at UTH.
 - This refutes the assertion by Spencely et al. (2008) that nurse characteristics such as experience can impact how information is sought to complete patient task as this was not the case with UTH nurses.
 - Leckie et al. (1996) described information use as information seeking, searching strategies, and information resources used. There was need therefore to establish the information searching skills of nurses at UTH to ascertain the role of these relationships.

Conclusion

- The importance of using research information by nurses in clinical practice has been clearly articulated by researchers.
- The study has shown that the number of nurses that admitted that they were making use of research information frequently in clinical practice at the University Teaching Hospital is more than half of the nurses.
- It is however still worrying that almost half of the nurses that is **23 (40.35%, rarely)** and **3 (5% , Never)** utilised research information.
- The study has established that the majority of nurses appreciate their information needs.
- And that they need information to use in clinical practice for various tasks such as patient care, infection prevention control, new remedies and how to administer drugs amongst others.
- This study clearly shows there is still a big role to be played by librarians and libraries in the provision of Evidence Based Information to Nurses in their clinical practice.

Relevance to Policy Formulation and Practice

- *The research identifies several policy implications that are relevant to practice such as:*
 - Assist policy makers come up with the best ways of providing Evidence Based Information to practicing nurses in Zambia.
 - Help nurses, nurse educators and nurses associations understand the importance of research information utilisation in clinical practice.
 - Improving research utilisation may provide nurses with the opportunity to meet the patients' caring demands with the appropriate positive responses.
 - Assist in directing efforts towards training nurses in problem-solving and information-seeking.
 - Encourage the provision of appropriate information resources to nurses at the point of care, in a user-friendly format.

Recommendations

- **Develop and implement training programmes on research utilisation for nurses (e.g. Training Nurses in information search skills and electronic information retrieval.**
- **Provide an enabling environment for information sharing of Evidence Based Practice.**
- **Increase promotion/marketing of information resources to practicing nurses.**
- **Tailor information provision in a way that meets the specific information needs of nurses for easy access at the point of care.**
- **Hospital Management should improve ICT infrastructure so as to facilitate access to better EBI.**
- **Further study looking at the role that the University of Zambia Medical Library plays in the provision of health information to practicing nurses at the University Teaching Hospital.**

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Thank You