Knowledge, Beliefs and Teaching Strategies of Evidence-based Practice among Nurse Educators/Lecturers in Nursing Institutions in Benin City, Edo State, Nigeria

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Abstract

Aim and Objectives: The objective of this study was to ascertain the knowledge, beliefs and teaching strategies of evidence based practice among Nurse Educators/Lecturers in nursing institutions in Edo State, Nigeria.

Method/Study design: The study was a descriptive survey. The total population of Nurse Educators/Lecturers in nursing institutions in Benin City, Edo State Southern Nigeria was used for study. They are fifty eight (58) in number. Questionnaires consisting of 40 structured items with open ended questions were used. A test retest co-efficient reliability was used to collate the scores giving a score of 0.85. The validity was ascertained by experts. The Questionnaires was administered to the entire population. Only fifty (50) questionnaires were retrieved.

Result: This study showed that majority of respondents has knowledge of evidence based practice. Further investigation shows that out of 88% of respondents who claimed to have knowledge about EBP had knowledge deficit in the following areas as reflected in this study, 68% of the respondents had no knowledge about the steps of EBP, 60% had no knowledge about the of teaching EBP, 52% are ignorant of PICO (Patient/Problem, Intervention, Comparism and Outcome) and 64% them are not comfortable in Teaching EBP, while 64% of them are not comfortable in stating the level of evidence. This study also revealed that there is a significant association between nurse Educators/lecturers beliefs, attitude and EBP in the study area. Lastly, result on the knowledge of teaching strategies of the Nurse Educators/Lecturers to the teaching of EBP showed that there is evidence base practice knowledge deficient among the Nurse Educators/Lecturers in the study area.

Conclusion: This study indicated that the Nurse Tutors/Lecturers do not have significant knowledge in EBP but believe in its usefulness if taught in school.

Key words: Evidence-based practice (EBP), knowledge, beliefs, evidence based medicine, Nurse Tutors/ Lecturers

Introduction

Evidence-based practice (EBP) has developed from evidence based medicine and has taken the centre stage in health care delivery in the past two decades. Evidence-based practice is seen as the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients.[1] EBP is a concept that challenges and requires nurses/midwives and other health practitioners to alter their culture. It is a clarion call for the need to move away from the traditional nursing practice and "because nursing sister says" towards making use of current research evidence. It is the integration of the best evidence with clinical expertise and patient values to facilitate clinical decision making.[2] Evidence-based practice challenges nurses to justify their care decisions and base them on the best available evidence.[3]

In evidence-based nursing, four components are weighted in decision making: research evidence, patient values, clinical skills and resources availability.[4] It has been observed that the ability and willingness of nurses to do and apply research in practice is essential for evidence-based nursing to grow.[5] Available evidence in literature on evidence based nursing emphasizes the barriers and factors impeding nurses working with evidence based approach.[6]

Various reasons have been adduced for nurses to embrace evidence based nursing practice. One of the reasons is that for nurses to be equal partners in clinical and health care decision making, it is essential that they are conversant and competent in accessing and applying evidence in their work.[5] Other factors have created a renewed urgency for nursing to engage with EBP and adopt it as a way of working. The first is the priority place on EBP in current health policy in the advanced countries as a means of delivery effective and efficient health care. There is need for Nigeria to move in the same direction to benefit from the advantages inherent in evidence-based practice.

Another factor is that other clinical and management health professions are becoming more accomplished at using evidence in their decision making. If nurses do not get involved in evidence-based practice, they will find themselves increasingly isolated and powerless if they fail to integrate evidence based skills into their practice. There is also the need for nurses to provide effective healthcare within limited resources available especially in this era of cuts in government spending due to reduction in government revenues. EBP will in turn help nurses to key into the world of change to evidence-based nursing practice. The concept of Evidence based practice started in 1992 and it started in Nigeria in the beginning of this decade, since then awareness has been created through seminars, workshops etc. However implementation is its rudimentary stage.

Koessl[7] explained that a belief can be considered as conviction held in the absence of evidence. Sometime a person does not actively have to reflect on belief. A belief is a determinant of attitude towards an object or situation. Nurse educators/lecturers knowledge and beliefs are very crucial in teaching nursing students clinical inquiry, research utilization, and EBP. Higher level cognitive processes are necessary for the appropriate selection, utilization and evaluation of knowledge for practice of EBP[8]. This will also provide some guidance for nurse educators. The nurse educators/lecturers knowledge and beliefs on evidenced based practice is studied because they have access to various educational strategies that can be used to impact knowledge on nursing students.

Objectives of this study are to:

1. Determine the nurse Tutor/Lecturer's knowledge level of evidence-based practice.
2. To determine the association between nurse Tutors/Lecturers beliefs and EBP.

3. Examine the attitude of nurse tutor/lecturers and EBP

4. To assess the knowledge of teaching strategies of nurse tutor/lecturers in EBP

Research questions

The following research questions were posed to give direction to the study and will be answered in the course of this investigation.

1. What is the knowledge level of nurse tutors/lectures of evidence based practices?

2. To what extent is the association between nurse tutors/lecturers beliefs and evidence based practices?

3. Is there a significant influence of the attitude of nurse tutors/lecturers and evidence based practices?

4. Do the nurse tutors/lecturers have knowledge of teaching strategies in EBP?

Materials and Methods

Design: This study was a descriptive survey.

Population: The target population is nurse educators and lecturers.

Sample size and technique: Total population of 25 lecturers from dept of nursing Uniben, 20 educators from school of Nursing, UBTH and 13 educators from state school of Midwifery were used for the study, making a total size of fifty eight (58)

Instrument: The study was carried out in three selected institutions. These institutions include the state school of Midwifery, Benin, school of Nursing, UBTH, and the department of Nursing, University of Benin,

Data was collected using a pre tested self-administered anonymous structured close-ended questionnaire. The questionnaire was prepared based on the available literature and the opinion generated from nurses who teach nurses. The instrument was a validated 40 item questionnaire consisting of five parts with open ended questions were used. Section A contains items that provide demographic information about the participants. Section B tapped into the knowledge about EBP, section C elicit information about the association between nurse educators/lectures beliefs and evidence based practice, Section D elicit information on attitude of nurse educators/lectures and evidence based practice and lastly, Section E eliciting knowledge of teaching strategies of the Nurse Educators/Lecturers to the teaching of EBP. 20 questionnaires were pretested among educators from the state school of nursing who are not participating in the study. The exercise was repeated after three (3) weeks using

the same tool on the same participants. A test retest co-efficient reliability was used to collate the scores giving a score of 0.85. The validity was ascertained by experts. A total number of fifty eight (58) questionnaires were sent out and fifty (50) copies were returned.

Data analysis:

Data were analyzed by the use of descriptive statistics and Pearson product moment correlation analysis, at $p < .05$. The results are presented in table 1 through 5.

Ethical consideration: Permission to carry out the study was obtained from the principals and Head of department of selected institutions. Objectives of the study were explained to lecturers and tutors themselves to obtain consent.

Result

Table I reveals distribution by age. 24% are within the age range of 31-35years, 12% within the age range of 36 – 40, 4% within the age range of 41 – 45, 24% within the age range of 41 – 45, and 24% within the age range of 46 – 50.

The basic educational qualifications of nurse tutors /lecturers are registered nurse, registered midwife. In addition, 44% have bachelor in Nursing Science, 24% have Bachelor of Science, 24.0% have Bachelor of Science in health education, 28.0% masters in the area of public health and masters in health planning and management nurse while 4.0% have PhD in health education.

Research question one

What is the knowledge level of nurse tutors/lecturers of the teaching of Evidence based practices? Descriptive statistics was used to answer this research question, results are presented in table 2 and figure 1.

In respect of evidence-based practice knowledge level of nurse educators and lecturers in table 2 and fig 1, 88% of respondents are said to have knowledge while 12% claimed not to have evidence based practice knowledge, this implies that the knowledge level of nurse tutors/lectures on evidence base practice is high among those sampled. Further investigation shows that out of 88% who claimed to have knowledge about EBP has knowledge deficit because 68% of the respondents had no knowledge about the steps of EBP, 60% of the respondents had no knowledge about teaching EBP, 52% respondents are ignorant of Patient/Problem, Intervention, Comparism and Outcome (PICO) and 64% of the respondents not comfortable in Teaching EBP, while 64% of the respondents not comfortable in stating level of evidence.

Research question two

To what extent is the association between nurse educators/lectures beliefs and evidence based

practice? Pearson product moment correlation coefficient was used to answer this research question at p <.05, with 48 degree of freedom. The result is presented in table 3.

Result from table 3 reveals an r-value of 2.54 which is greater than the critical r-value of 0.88 at p <.05 with 48 degrees of freedom, this implies that there is a significant association between nurse educators/lectures beliefs and evidence based practice in the study area.

Calculation of respondents' response shows that 84% have strong views about the EBP improving clinical outcome while belief on EBP improving patient outcome, if it has been used, used to improve patient outcome and value guiding nursing practice had weak views of percentages ranging from 60%, 52.4% and 72.7% respectively.

Research question three

Is there a significant influence of the attitude of nurse educators/lectures and evidence based practice? Pearson product moment correlation was used to answer this research question at p <.05. The result is presented in table 4.

Result from table 4 reveals an r-value of 3.88 which is greater than the critical r-value of 0.88 at p <.05 with 48 degrees of freedom, this implies that there is significant influence of the attitude of nurse educators/lectures and evidence based practice in the study area. It could also mean that nurse educators/lectures with positive attitude towards evidence base practice often used it in clinical session thereby encourage the young ones to imitate and learn from it.

Result from table 5 shows the different strategies at the disposal of nurse educators/lectures in the study area. Observation of the results shows that there are about seven strategies used for teaching evidence base practice, out of the seven strategies only three of the strategies are statistically significant: participation in grand rounds ($x^2 = 9.783$); clinical conference ($x^2 = 2.130$); searching literature and obtaining evidences about practice identified ($x^2 = 7.348$), while four of the strategies are not statistically significant: computer-based educational programme ($x^2 = 2.130$); Role modeling and integration skills necessary to develop evidence-based practice into clinical practice ($x^2 = 0.048$); research knowledge and integrating it into clinical practice ($x^2 = 0.391$) and peer tutoring ($x^2 = 0.040$). From this result it is clear that there is evidence base practice knowledge deficient among the nurse tutors/lecturers in the study area.

Discussion of Findings

The demographic distribution of respondents by age shows that majority are within the age range of 31-35years (24%), 41 – 45 (24%) and 46 – 50 (24%). The basic educational qualifications of nurse tutors /lecturers are registered nurse, registered midwife. In addition, 44% have bachelor in Nursing Science, 24% in Bachelor of Science, 24.0% in Bachelor of Science in health education, 28.0% masters in the area of public health and masters in health planning and management nurse while 4.0% have PhD in health education.

The result of this study showed that majority of respondents have knowledge about evidence based practice; further investigation revealed that the 88% who claimed to have knowledge about EBP had no knowledge about the steps of EBP, teaching of EBP, level of evidence, knowledge of PICO and comfortable in teaching EBP respectively. The steps of EBP, level of evidence and the PICO are the basic knowledge and gold standard of EBP. This implies that there is knowledge gap among the nurse educators/lectures sampled on evidence base practice. This is in agreement with the findings of Melnyk, Fineout-Overholt, Fischbeck, Li, Small, Wilcox, and Kraus.[9] The concept of EBP is just gaining ground in the study area; even in many university curriculums[10] and Nursing and Midwifery curriculum for Schools of Nursing and Midwifery confirmed their not being taught separate course in EBP. These documents confirm the knowledge gap. This also supports the view in literature that the way in which the traditional research course is taught does not prepare nurses to move research evidence into practice[10]. Moreover the study of Ofi, Edet, Showunmi and Anarado[11] showed that nurses do not read or utilization research findings. Although the study of Adejumo and Guobadia[12] indicated that the level of education of nurses and the years of experience had a positive impact of the perception and utilization of research.

Our study found out that there is a significant association between nurse Educators/lecturers beliefs and evidence based practice in the study area. They have strong beliefs about the roles of evidence-based practice in improving clinical, patient outcome. The finding of the study supported the previous study of Melnyk et al[9], Melnyk, Fineout-Overholt, Feinstein, Sadler, Green-Hernandez[4] including Nursing and Midwifery Council of Nigeria.[10]

Our study revealed that there is significant influence of the attitude of nurse tutors/lectures and evidence based practice in the study area. Test of belief to teaching indicate that the aspects of currently teaching, mission statement and objectives, attendance of conferences. This corroborates with the studies of Melnyk et al[4] and Melnyk et al[9] who identified their participant beliefs about the benefit of EBP were high. This did not corroborates with Thomas and Davies[13] study, which examine and concluded that evidence-based care would seem to inquire the education of health care professionals to reflect in Bernsteins terms, "a competence model of Pedagogy requiring a curriculum with a degree of integration and promoting both propositional and practical knowledge". They add that successful achievement of such change (curriculum) would require adequate preparation of educators for new tasks and roles during their development.

Our result on the knowledge of teaching strategies of the Nurse Educators / Lecturers to the teaching of EBP showed that there is evidence base practice knowledge deficient among the nurse tutors/lecturers in the study area. This study does not agree with the findings of Melnyk et al[4] and Melnyk et al[9].

Conclusion

The study has shown that there is knowledge gap in evidence-based practice in the area of the principles of EBP which is the gold standard. Although some claimed to have been taught but the cognitive test of knowledge revealed the deficiency. This implied that if EBP is included in the curriculum there will be a mission statement to that effect and the objectives well spelt out, Nurse Tutors / Lecturers will be comfortable to teach EBP and the students and educator's decision making will improve using research evidence. Policy documents revealed

also the absence of mission to teach EBP, learning objectives related to EBP or any separate course on EBP. Consequently the respondents do not currently teach EBP principles to their students. Most of the information they have about EBP, were gotten from conferences or the internet.

Recommendation

It is recommended that Nursing and Midwifery Council of Nigeria should incorporate EBP in it Nursing Education Curriculum. Zonal and National curriculum workshops should be organized by the council as first step to create awareness. Finally, the Nursing and midwifery council should encourage staff training, retraining and long life education in various areas of nursing as it is currently done in MCPDP should be extended to EBP in particular.

Conflict of Interest: None declared

References

1. Sackett DL, Rosenburg W, Gray MC, Muir JA, Haynes BR, Richardson WS. Evidence based medicine. What it is and what it is not. BMJ 1996;312:71.
2. Sackett DL, Strans SE; Richardson WS, Rosenburg W, Hayness RB. (2005) Evidence-based medicine: How to practice and teach EBM. 2nd Ed, New York, Churchill, Livingstone.
3. Keller MM. Removal of Urinary Cartheters: Midnight vs 0600 hours. Br.J.Nurs 2002;11(2):88 -90.
4. Melnyk BM, Fineout-Overholt E, Feinstain NF, Sadler LS, Green HC. Nurse practitioner educators' perceived knowledge, beliefs, and teaching strategies regarding evidence-based practice: implications for accelerating the integration of evidence-based practice into graduate programs Journal of Professional Nursing 2008;24(1);7-13.
5. Tod A, Palfreyman S, Burke L. Evidence-based practice is a time of opportunity for nursing, British Journal of Nursing 2004;13(4):211-216.
6. Cranston M. Clinical Effectiveness and Evidence-based practice. Nurse Stand 2002;16(24):39-43.
7. Koessl BD (2009) Factors influencing rural nurses attitudes and beliefs towards evidenced based practice. A Thesis submitted in partial fulfillment of the requirement for the degree of Masters in Nursing. Bozemani, Montana. Retrieved online on the 10th of July 2013.
8. Nickerson CJ, Thurkettle MA. Cognitive Maturity and Readiness for Evidence-Based Nursing Practice. Journal of Nursing Education. January 2013;52(1):17-23.
9. Melnyk BM, Fineout-Overholt E, Fischbeck Feinstein N, Li H, Small L, Wilcox L, Kraus R. Nurses' Perceived Knowledge, Beliefs, Skills, and Needs regarding Evidence-Based Practice: Implications for accelerating the paradigm shift. Worldviews Evid Based Nurs. 2004;1(3):185-93.
10. Nursing and Midwifery Council of Nigerian (Revised) 2006 Post Basic Midwifery Curriculum, Lagos, City way Printers & Paper Industry Ltd. Pg 29 – 30.

11. Ofi B, Edet O B, Showunmi L, Anarado AN. Research and Research Utilization among Nurses Working in selected tertiary Health Institutions in Southern Nigeria. International Journal of Nursing Practice 2007;14:243-255.

12. Adejumo P O, Guobadia P O. Nurses Atittude to Reading Research Articles and their Perception of Research Utilization in Clinical Practice in A Nigerian city. Journal of Medicine and Biomedical Research. College of Medical Sciences, University of Benin, Benin City 2013;12(1):46-56

13. Thomas E, Davies B. Nurse teachers knowledge in curriculum planning and implementation. Nurse Education Today 2006;26(7):572 - 577.

Table 1: Demography

Variables		Frequency	Percentage (%)
Gender	Male	4	8.0
	Female	46	92.0
	Total	**50**	**100.00**
Age (yrs)	Below 35	12	24.0
	36 – 40	6	12.0
	41 – 45	2	4.0
	46 – 50	12	24.0
	50 – 55	12	24.0
	56 and above	6	12.0
	Total	**50**	**50**
Qualification	B.Sc (Nursing)	11	44.0
	B.Sc (Health	6	24.0
	Ph.D	1	4.0
	Others (e.g Public Health, *MHPM)	7	28.0

Note: All the Tutors / Lecturers are either Registered Nurse/Midwife or both.
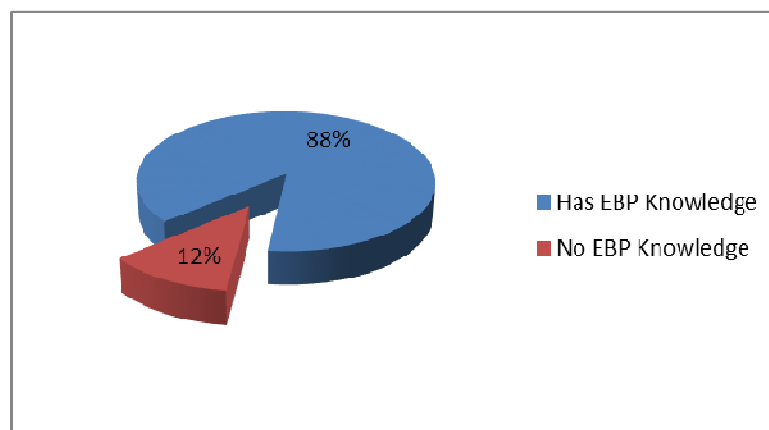MHPM: (Health Planning and Management)

Figure 1: Knowledge level of respondents on evidence base practice

Table 2: Test of Significance of EBP Cognitive knowledge of the Nursing Educators/Lecturers using Pearson's Chi-Square (X^2)

	Has knowledge	No EBP knowledge	Total (%)	X²	Df	P-value	Decision
Knowledge about EBP	44 (88.0%)	6 (12.0%\)	50 (100)	11.440	1	0.000**	Significant
Knowledge about the steps of EBP	26(32%)	34 (68%)	50 (100)	0.640	1	0.072	Not significant
Knowledge about teaching EBP	20 (40%).	30 (60%)	50 (100)	0.667	1 1	0.414	Not significant
	Knows PICO	Ignorant of PICO					
Knowledge of PICO	24 (48.0)	26 (52.0)	50 (100)	0.040	1	0.841	Not significant
	Comfortable	Not comfortable					
Comfortable-in Teaching EBP	18 36	32 64	50 (100)	2.130	1	0.144	Not significant
Stating level of evidence	18 36.0	32 64.0	50 100	1.960	1	0.162	Not significant

Table 3: Pearson product moment correlation coefficient of nurse educators/lectures belief and evidence based practice

Variables	N	Mean	SD	r-value	Sig
Nurse educators/lectures belief	50	15.02	3.02	2.54	0.02
Teaching of EBP	50	13.55	3.99		

*significant at p <.05; df = 48; critical r-value = 0.88

Table 4: Pearson product moment correlation of attitude of nurse educators/lecturers and evidence base practice

Variable	N	Mean	SD	r-value	Sig.
Attitude of nurse educators/lecturers	50	15.88	4,01		
				3.88	0.01
Evidence base practice	50	13.55	3.99		

Significant at p<.05; df = 48; critical r. = 0.88

Table 5: Test of significance of the knowledge of teaching strategies of the Nurse Educators / Lecturers to the teaching of EBP using Pearson's Chi-Square (X^2)

Teaching strategies of EBP	Yes (%)	No(%)	Total (%)	X^2	Df	P-value	Decision
Computer-based educational program	20 (34.78)	30 (65.22)	50 (100)	2.130	1	0.144	Not significant
Role modeling and integration skills necessary to develop evidence-based practice into clinical practice.	24 (47.62)	26 (52.38)	50 (100)	0.048	1	0.827	Not significant
Research knowledge and integrating it into clinical practice.	20 (43.48)	30 (56.52)	50 (100)	0.391	1	0.532	Not significant
Peer tutoring	14 (28.00)	36 (72.00)	50 (100)	.0.040	1	0.058	Not significant
Participating in grand rounds	14 (17.39)	36 (82.61)	50 (100)	9.783	1	0.002**	Significant
Clinical conference	20 (34.78)	30 (65.22)	50 (100)	2.130	1	0.144	Not significant
Searching literature and obtaining evidences about practice identified	10 (21.74)	40 (78.26)	50 (100)	7.348	1	0.007**	Significant

Significant at p<.05; df = 49