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An assessment of decision making in midwifery practice: A case study of selected hospitals in Oyo State, Nigeria

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ABSTRACT

This cross-sectional non-experimental study was carried out to examine decision making abilities of practicing midwives in some selected hospitals in Ibadan, Oyo state, Nigeria. The study population consisted of 500 randomly selected nurse/midwifes working in 3 public and 2 privately owned randomly selected hospitals. A self-developed pretested questionnaire was employed in collecting data which were later analysed using the SPSS version 12.0. Results revealed that among the respondents, 45% were 40-50 years old, 38% between ages 35-39 years while 17% were of ages 20-34 years. Majority, 91% were married, 7% were single while the remaining 2% were widows. Out of the 500 respondents, 53% were senior nursing officers, 22% were principal nursing officers while the remaining 25% were assistant chief nursing officers. Concerning the length of their service in midwifery practice, 53% of the respondents had spent between 11–20 years, 28% between 21–30 years, and 14% between 6–10 years with 5% having spent below 5 years in midwifery practice. Also, among the respondents 68% of them had spent 5 years in their present position, 24%, 6-10 years while 8% had held their positions for upward of 11 years and above. About, 88% of the respondents agreed that midwives are involved with three types of interventions, that is dependent, independent and inter-dependent nursing/midwifery functions; another 88% agreed that midwives' decisions are often drawn from experience based on routine procedures while 64% agreed that often decisions are made and implemented by midwives before the facts have been gathered. The result also indicated that the entire 4 hypothesis drawn were accepted. This shows that midwives are actually taking decisions but the decisions are not authentic, assertive and defensible. It is concluded that midwives need assistance in form of continuous education programmes and financial support from colleagues and government, in order to be decision makers in their professional specialty.

Keywords: Decision making, midwives, midwifery practice, experience and routine procedures.

INTRODUCTION

Nurses are under increasing pressure to keep up to date and to take decisions more firmly on evidences in contrast to the anecdotal information of the past. The most important aspect of evidence-based practice is that it provides a scientifically accountable method for making best-practice decisions that ensures professional transparency. Evidence based practice provides nursing practice with a stronger application of scientific methods [1]. Evidence based practice is the conscientious, explicit and judicious use of current best evidence in making decisions about the case of individual patients [2]. This type of practice has been viewed as a sequence of framing a focused question followed by a thorough search for research, derived evidence supported by the appraisal of the evidence for its validity and relevance, incorporating the user's values and preferences [3].

Pravikoff and co-researchers on close examination of nurses' perceptions about their access to tools and the skills to obtain evidence in their practice, using a stratified random sample of 3,000 registered nurses (RNs) across the United States, have found that nurses frequently need information for practice on specific tasks, but do not understand research nor have received any training in the use of tools that would help them find evidence to base their practice [4]. It has been noted that it "is the nurses' intense involvement in reflective practice that allows them to make judgments and take action in clinical situations"[5]. Esterhuizen and Freshwater examined the role of reflective practice in the nursing field and believe that reflection can be used to improve, as well as describe nursing practice [6]. Kozier and Erb described decision making as a process of selecting a particular action from many alternatives in order to meet a desired goal [7]. Decision making and problem solving have often times been confused with one another. There is however, a difference between them [8], and it has been explained that problem solving is a less complex process directed toward the solution of an immediate problem, as it involves trial and error approach, while decision making always involves evaluating several possible solutions and making a choice among them.

The midwife is a nurse-manager with skills in midwifery practice. She is trained to give necessary supervision, care and advice to women during pregnancy, labour and puerperium. She is also trained according to World Health Organisation (WHO) to conduct deliveries on her own responsibility, and to care for the newborn and the infant. She may practice in hospitals, clinics, health clinics and domiciliary conditions. The midwife, therefore, as a nurse-manager has to take constant decisions about every aspect of her situation [9].

The Nigerian midwife is trained to practice in the rural community where there are no doctors to cater for women in pregnancy, labour and puerperium, and is supposed to take many independent decisions during the course of practice. Her decision making power is further strengthened by the declaration of the World Midwife Leaders of 1991 in Kobe, at the International Congress of Midwives, which stated that midwives are to take on added roles in order to reduce preventable maternal mortalities plaguing the world especially in the developing countries. With these added roles, they are expected to take decisions that will make them carry out certain actions in order to take up the added ideas successfully.

The nurse manager must be familiar with the decision making process and decision making tools so that she can identify the purpose of the institution, state the philosophy, define goals and objectives, outline the policies and procedures, analyse, evaluate and design jobs, prepare budgets to implement her plans and manage her time and that of the organisation [10]. Bernhard and Walsh viewed the nurse manager as being constantly involved in the decision making process. She makes decisions about every aspect of her situation, that is, about herself as a leader, about her group and about the goals the group wants to achieve. They emphasized that the ability to make good decisions is an extremely important part of leadership in nursing [8]. Mariner further explained that decision making is the scientific problem solving process [10].

Referencing Nicholas, Bailey and Claus said "there are three kinds of people in the world: those who make things happen, those who watch things happen, and those who do not know what is happening". They believe that nursing and other health professionals are confronted with multiple complex problems: How to "make things happen" to improve the quality of health care services, and to resolve the crisis in the health care delivery system of concern to the nation. They mentioned the fact that in U.S.A., the health care industry was charged for being responsible for about 50% of personal bankruptcies filed in the country because of inefficient use of health personnel, escalating costs of health care, inadequate distribution and availability of health services, fragmentation of care, lack of team work and quality control, backward incentives and a system with long-term catastrophic illness [11]. These researchers went further to explain that society's health needs are changing and increased life expectancy has resulted in a need for increased home care and extended care facilities. Therefore, skilled nursing care is needed. In the face of complex medical interventions, trained nursing specialists with new knowledge and skills are required. Informed consumers are pressing for facts about their health status, a more active role in the health care system and more consideration of their basic human rights. In order to meet the crisis in the delivery of health care services, solutions must come from within the organization; administrators, physicians, nurses, and other health professionals must recognize the problems, feel a need to change and work together in order to make things happen. The researchers also opined that for nursing care to improve, nurses must begin with patient care problems and needs. They believe that a systematic approach is the key to success in decision making. Already, nursing is assuming a vital role in improving the quality and quantity of health care services, and in meeting the changing needs of the society.

In many areas where nurse-midwifery is accepted, the preliminary examination of the patient is carried out by a physician. If no abnormality is found, she is assigned to a nurse-midwife for the remainder of the pregnancy. The physician is usually available for consultation if need be.

Wills found out that more than 60 percent of deliveries at the maternal health service of a community hospital in Springfield, Ohio were performed by midwives. She reported that in Canada so far, nurses who have performed the full range of midwifery services have been more on their own. Delivering babies, diagnosing situations of risk for referral to more fully equipped hospitals, suturing wounds and administering drugs have been a part of the life of the Canadian nurses [12].

In 1991, WHO reaffirmed that a midwife is a person who, having being regularly admitted to a midwifery education programme duly recognized in the country in which it is located, has

successfully completed the prescribed course of studies in midwifery, and has acquired the requisite qualifications to be registered and/or locally licensed to practice midwifery.

The goal of training Nigerian midwives is to prepare professionally competent and versatile midwifery practitioners who through initiative and self-directed learning, are capable of providing high level care to individuals and expectant families in homes, clinics in the served and underserved areas of the society, and the nation at large [13]. The above goal states the fact that a midwife should be responsible for the health of the child bearing family in her community. This in fact places the Nigerian trained midwife at par with a Canadian trained nurse-midwife. Due to the staggering maternal mortality ratio of 800/100,000 live births [14] coupled with high maternal morbidity, certain obstetric emergencies may have to be performed by midwives in order to reduce maternal mortality and morbidity worldwide.

Two main types of decision making: Satisfying Decision and Optimizing Decision, have been listed [8]. Two factors relevant to the potential effectiveness of a decision have also been identified. They include quality of decision, and the acceptability of the decision to the group who will be affected by it. However, many midwives do not have the independent decision making skills they ought to have, as they are being controlled and expected to carry out orders by the doctors.

This study was intended to examine the decision making abilities of midwives in some selected hospitals in Ibadan, roles of midwives in midwifery practice, find out the existing decision making process in use, and bring to focus the importance of added roles and the need for acceptance of responsibility for crucial decisions made by midwives in the course of practice. The study will also highlight the fact that decision making is not a matter of experience through exposures and occasionally jumping into answers to problems identified, but a matter of systematic analyses of situations, predicting outcomes and taking actions which are defensible.

MATERIALS AND METHODS

This cross-sectional non-experimental study was carried out in Ibadan Oyo state, Nigeria. The study population consisted of 600 nurse-midwives working in 3 public and 2 privately owned randomly selected hospitals. In other to have a homogeneous population, the simple random sampling technique was also employed in selecting respondents across the health facilities. A self-developed pretested questionnaire which was validated by experts in health sciences for face, content and construct validity and with reliability of 0.79, was considered adequate. Research assistants were recruited and trained to help in the administration of the questionnaires. After sorting out the questionnaires, 500 copies were found acceptable for analysis which was carried out using the Statistical Package for Social Sciences (SPSS) version 12.0 [15]

RESULTS

Midwifery practice presently involves mainly females in Nigeria. Among the respondents 45% were 40-50 years of age, 38% between ages 35-39 years while 17% were of ages 20-34 years. Majority, 91% were married, 7% were single while the remaining 2% were widows. Out of the

500 respondents, 53% were senior nursing officers, 22% were principal nursing officers while the remaining 25% were assistant chief nursing officers.

Concerning the length of their service in midwifery practice, 53% of the respondents had spent between 11–20 years, 28% between 21–30 years, and 14% between 6–10 years with 5% having spent below 5 years in midwifery practice. Also, among the respondents, 68% of them had spent 5 years in their present position, 24% 6-10 years while 8% had held their positions for upward of 11 years and above.

Table 1: **Frequency distribution of respondents with regards to decision making in midwifery practice**

	FREQUENCY	PERCENTAGE %
Midwives are involved with three types of interventions: dependent, independent and inter-dependent nursing-midwifery functions	220	44.0
Strongly Agree	220	44.0
Agree	10	2.0
Strongly Disagree	30	6.0
• Disagree	20	4.0
• Not sure	245	49.0
Midwives' decisions are often drawn from experience based on routine procedures	195	39.0
Strongly Agree	15	3.0
• Agree	20	4.0
• Strongly Disagree	25	5.0
• Disagree		
• Not sure		
Midwives in your department or hospital readily accept the use of care plans in nursing intervention		
Strongly Agree	125	25.0
Agree	245	49.0
• Strongly Disagree	20	4.0
• Disagree		
• Not sure		
Often decisions are made and implemented by midwives before the facts have been gathered	50	10.0
Strongly Agree	105	21.0
Agree	70	14.0
Strongly Disagree	210	42.0
Disagree	80	16.0
Not sure	80	16.0
	60	12.0

Definition of the Chi-Square Estimate

Let Oj represent the observed values of the sample, Ej the expected values. Then the Chi-square is defined thus:

$$X^2_{n-1} = \sum \frac{(Oj - Ej)^2}{Ej} \sim t = X^2_{n-1},$$

Where X^2_t is the Chi-square tabulation

∑ is the summation sign

The application of X^2 test is carried out as follows:
a. Define the null hypothesis (H_0) and the alternative hypothesis (H_1).
b. Calculate X_c^2 using the observed (Oj) and the expected (Ej) values.
c. Check the corresponding X^2_{n-1} value with n-1 degree of freedom and level of significance from the chi-square table.
d. If $X^2_c < X^2_t$, then the null hypothesis (H_0) should be accepted.
Interpretation fo some notations used:

$\propto$ =Level of significance (= 0.05)

d.f = degree of freedom which is n – 1

$$Ej = \frac{\sum Oj}{N}$$

Where ∑ Oj = sum of respective observed values.
n = total number of alternatives.

Hypothesis

- Increased roles of midwives will increase the midwives self awareness to make intelligent decisions and be effective change agents.
- Midwives in the hospitals lack documentation culture needed to make their decision making authentic and reliable.
- Midwives in hospitals understand their independent positions as managers but they cannot take risks involved with decision making.
- Midwives in hospitals will benefit from additional knowledge in decision making skills.

Hypothesis I: Increased roles of Midwives

H_1: Increased roles of midwives will increase the midwives' self awareness to make intelligent decisions and be effective change agents.

H_0: Increased roles of midwives will not increase the midwives' self awareness to make intelligent decision and be effective change agents.
Testing H_0 and H_1:

Analysis on increased roles of the midwives

TABLE 2: Respondents response to the question on increased roles of midwives

Question	Respondents	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagreed
Increased roles increase the midwives' self awareness to make intelligent decisions	500	295	165	10	10	20
Total	500	295	165	10	10	20

Calculation of X^2_c

Oj	Ej	Oj – Ej	$(Oj-Ej)^2$	$\frac{(Oj-Ej)^2}{Ej}$
295	100	195	38,025	380.25
165	100	65	4,225	42.25
10	145	-135	18,225	125.69
10	100	-90	810	-0.90
20	100	-80	640	-0.80
500			61,925	546.49

Verification

$$X^2_c = \sum \frac{(Oj-Ej)^2}{Ej} = 546.49$$

Tabulated value is:

$X^2_t = X^2_t$ df , 0.05 $\propto$

Where d.f. = (n-1) (k-1)
n = no rows = 5-1 = 4
k = no column = 2-1 = 1
(4)(1) = 4 $X^2_t = 9.488$, that is 546.49 > 9.488

: · $X^2_c > X^2_t$ = H_0 is rejected while H_1 is accepted.

Hypothesis II: Documentation Culture
H_1: Midwives in the hospitals do not lack documentation culture needed to make their decision making authentic and reliable.
H_0: Midwives in the hospitals do not lack documentation culture needed to make their decision making authentic and reliable.

Testing H_0 and H_1

Table 3: Analysis on documentation culture

Question	Respondents	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagreed
Midwives do not lack documentation culture	500	35	100	85	160	120
Midwives readily accept the use of care plans in nursing intervention	500	235	235	30	0	0
TOTAL	1000	270	235	115	160	120
MEAN	500	135	67.5	57.5	80	60

Calculation of X^2_c

Oj	Ej	Oj – Ej	$(Oj-Ej)^2$	$\frac{(Oj-Ej)^2}{Ej}$
135	100	-35	1,225	12.25
167.5	100	67.5	4,556.25	45.57
57.5	125	-67.5	4,556.25	36.45
80	100	-20	400	4.0
60	100	-40	1600	16.0
500			12,337.5	114.27

Verification

$X^2_c = \sum \frac{(Oj-Ej)^2}{Ej} = 114.3$

$X^2_t = 9.488$

$114.3 > 9.488$ Therefore, $X^2_c > X^2_t$ = H_0 is rejected while H_1 is accepted.

Hypothesis III: Midwives' roles as managers and risk takers in Decision Making

H_1: Midwives in hospitals understand their independent positions as managers but they cannot take risks involved in decision making.

H_0: Midwives in hospitals do not understand their independent positions as managers but they can take risks involved with decision making.

In testing H_0, and H_1,

Table 4: Analysis on Midwives' role as manager and risk takers in decision making

Question	Respondents	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagreed
Midwives as managers	100	74	25	0	0	1
Midwives take vital decisions	100	54	37	2	7	0
Midwives' decisions are more dependent	100	19	28	7	23	23
Midwives don't like risk taking	100	19	30	9	23	19
Midwives' decisions are doctors' decisions	100	14	6	6	36	38
TOTAL	500	180	126	24	89	81
MEAN	100	36	25.2	4.8	17.8	16.2

Calculation of X^2_c

Oj	Ej	Oj – Ej	$(Oj-Ej)^2$	$\frac{(Oj-Ej)^2}{Ej}$
180	100	80	6400	64.0
126	100	26	676	6.76
24	145	-121	14,641	100.98
89	100	-121	14,641	146.41
81	100	-19	361	3.61
500			36,719	321.76

Verification

$X^2_c = \sum \frac{(Oj-Ej)^2}{Ej} = 321.76$

$X^2_t = 9.488$

$321.76 > 9.488$

Therefore, $X^2_c > X^2_t$ = H_0 is rejected while H_1 is accepted.

Hypothesis IV: Benefit from Additional knowledge

H_1: Midwives in hospitals will benefit from additional knowledge in decision making skills

H_0: Midwife in hospitals will not benefit from additional knowledge in decision making skills.

Testing H_0 and H_1

Analysis of benefit from Additional knowledge

Table 5: Response to question on skill acquisition

Question	Respondents	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagreed
Midwives' skill acquisition is beneficial	500	245	215	25	15	0
TOTAL	500	245	215	25	15	0

Calculation of X^2_c

Oj	Ej	Oj – Ej	$(Oj-Ej)^2$	$\frac{(Oj-Ej)^2}{Ej}$
245	100	145	21,025	210.25
215	100	115	13,225	132.25
25	145	-120	14,400	99.31
15	100	-85	7,225	72.25
0	100	-100	10,000	100
500			65,875	614.06

Verification

$X^2_c = \sum \frac{(Oj-Ej)^2}{Ej} = 614.06$

$X^2_t = 9.488$

$614.06 > 9.488$

$X^2_c > X^2_t$. Therefore, H_0 is rejected while H_1 is accepted.

DISCUSSION

The respondents were all experienced midwives falling back on past experiences in taking decisions in their everyday situations. About 88.0% of the respondents agreed either strongly or mildly that they are managers in their own right, recognizing the fact that midwives are involved in dependent, inter-dependent and independent nursing-midwifery functions.

In all situations, the respondents believed that midwives take vital decisions concerning daily assignments and clients' problems. It was observed that midwives often made decisions from past experiences. Marriner, however, posited that making decisions based on previous experience is not the best because what worked in the past may not materialize today [10].

Majority (59%), of the respondents strongly agreed that increased roles will increase effectiveness in making intelligent decision. This indicates that when midwives have added roles, they are likely to be effective decision makers, since they realize they have a responsibility to meet with the standards attached to their new roles. This is supported by previous researchers who explained that when nurses took responsibility for more complex care in New York and Virginia, they were also involved with major independent decision making [11]. Resulting from another study [12], it was posited that increased roles will increase effective decision making, as it was observed that midwives' roles enhanced independent decision making.

Decision making is an everyday affair in midwifery practice and all midwives from the youngest to the oldest at any level of seniority and experience are bound to take decisions on the care of their clients, and concerning the units or departments they work in. Decision making also involves risk taking but often midwives are not ready to take risk, hence they avoid taking assertive decisions. About 61% of the respondents indicated their agreement to the statement, while another 61% agreed that doctors make most decisions in practice, and any decisions made by the midwife has to be ratified by the doctor. This indicates that midwives do not want to take risk in decision making. Bailey and Claus however, believe that giving nurses additional knowledge in decision making skills will assist them in making independent, defensible decisions [11].

As to the benefit of additional knowledge in decision making, 92% of the respondents believed that midwives in hospitals will benefit from additional knowledge. When the midwives receive additional knowledge, they will be more confident and be ready to take decisions not minding the risks involved. The fact that midwives have little or no skills about the decision making process however, makes it more difficult. Besides, they run away from taking risks. The midwives themselves realize that they need some form of education to make them able to make intelligent, assertive and defensible decisions that will enhance quality care in midwifery practice.

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