

Challenges in the implementation of nursing audit feedback in selected tertiary health institutions in southeast Nigeria: The nurses' perspective

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Abstract

This is a descriptive survey that investigated the challenges in the implementation of nursing audit feedback: in the perspective of nurses in selected tertiary health institutions in the Southeast Nigeria. One research question and two hypotheses guided the study. Sample of 316 respondents was statistically drawn from population of 1772 nurses through Epi info-7 statistical method for calculating sample size. Investigators'-developed questionnaire was used for data collection. The instrument was validated for contents and tested for internal consistency through a pilot test and values were analyzed using Crombach's Alpha which yielded an index 0.70. Ethical approval from the Research and Ethics Committee of the selected institutions authorized the researchers to embark on the study. The study revealed that the nurses face different levels of challenges in the implementation of nursing audit feedback ranging from improper communication of audit report ($\bar{x}=3.71$, $SD\pm 0.94$) to short time frame for implementation of standard care actions expected of them ($\bar{x}=3.47$; $SD\pm 1.20$). Study also shows that age does not play significant role in the challenges faced by the nurses in the implementation of nursing audit feedback ($\chi^2 = 1.85$; $DF = 2$; $p = 0.605$). Years of practice experience does not play significant role in the challenges faced by the nurses in the implementation of nursing audit feedback ($\chi^2 = 8.93$; $DF = 2$; $P = 0.030$). The researchers recommended close monitoring of the clinical nurses in their day to day practice as well as determining the best means of breaking the bottlenecks through coaching, guidance, counseling and reward for those that implement audit feedback report.

Keywords: challenges, feedback, implementation, nursing audit, perspectives

1. Introduction

Health seeking behaviour is done at a cost by individuals, families and communities. Some of these costs are invincible but challenging and individualized. This is evidenced when individuals that seek healthcare services demonstrate interaction in different dimensions of life with interwoven reactions. These different dimensions in life affect each other (Okoronkwo, Anieche, Chinweuba, & Ndu, 2013) ^[1]. The interacting dimensions are managed collaboratively by healthcare professionals including nurses with each profession aspiring for quality input for better patient outcome. Farman, Kousar, Hussain, Waqas, and Gillani (2017) ^[2] have shown that quality healthcare services are rationally proportionately related to satisfaction of both the healthcare providers and care recipients.

Quality healthcare provision including quality nursing care is achieved through quality improvement measures such as nursing audit and feedback. It increases the likelihood of achieving desired patient outcome and satisfaction (Centre for Medicaide Services, 2009) ^[3]. Systematic reviews have shown that cycles of audit, with written and verbal feedback can change clinical practice and nominated behaviours by small to moderate amounts (Vratsistas-Curto, McCluskeys & Schurr, 2017) ^[4]

Nursing audit and feedback process is a quality improvement measure that seeks to evaluate nursing care provision against expected standard and projected outcome. Nursing audit emanated from Clinical audit which is a process used by health professionals to assess, evaluate and

improve care of patients in a systematic way (Borgert, Binnekade, Paulus, Goosens, Vroom & Dongelmans, 2016) ^[5]. Audit is the process of identifying deficiencies so that they may be remedied (Johnston, Crombie, Davies, & Millard, 2000) ^[6]. It is a tool that addresses all components of clinical effectiveness where health professionals examine their care practices against clinical guidelines or best practice statements (Pearson, Field & Jordan, 2007) ^[7]. Das (2012) ^[8] posited that it is part of clinical audit designed to review patient's record to identify, examine or verify the performance of certain specified aspects of nursing care by using established criteria. Audit seeks to establish areas for service improvement, develop and carry out action plans to rectify or improve service provision and then re-audit to ensure that the changes applied have positive effect on patient outcome.

Audit and feedback is part of multifaceted change process and from a common sense perspective it is easy to appreciate that audit feedback would be a useful way to re-examine existing hospital protocols and replace the ones found to be ineffective with new protocols that have been shown to be effective (Pattinson, 2012) ^[9]. Pattinson (2012) ^[9], affirmed that the effect of audit will be strengthened if the health-care professionals are actively involved and have specific and formal responsibility for implementing any change in practice.

Effectiveness of feedback seems to depend on baseline performance and how feedback is provided (McReynolds & Jordan 2014) ^[10]. Masso and McCarthy (2009) ^[11], identified

eight factors that influence the implementation of evidence-based practice in aged care to include: a receptive context for change, having a model of change to guide implementation, adequate resources, staff with the necessary skill, stakeholder engagement, participation and commitment, the nature of the change in practice, system in place to support the use of evidence, and demonstrable benefits of the change

Effectiveness of audit and feedback was seen as likely to have a better response when the nurses perceive that it was relevant and that the process fitted into their preferences (Christina, Baldwin, Boron, Emed, & Lepade, 2016)^[12].

Feedback can be perceived as a job demand that pressures nurses to improve the results on the quality measurement. It can be perceived as extrinsically or intrinsically motivating job resources that is instrumental to improve quality measurement Giesbers, *et al.* (2016)^[13]. They asserted that individual perception of feedback must be taken into consideration. Manojlovich, Cooke, and Davila (nd)^[14] posited that feedback improves motivation and learning and actively involving staff enhance feedback. Also feedback effects and efforts characteristics, task characteristics and situation with personality characteristics affect feedback effectiveness.

Effectiveness of nursing audit feedback in improving quality of nursing care, client outcomes and job-satisfaction of nurses may be faced by challenges in its implementation. American Nurses Association (2010)^[15], asserts that challenges of audit feedback range from institutional or managerial issues to professional which may include: untimely and incomplete feedback, non-provision of materials and equipment by the management, attitude of nurses, un-amenable to change among nurses, uncooperative attitude of other professionals in the health care system, shortage of staff, deficiency in time to render cares to the clients, and non-flexible institutional policies. Nurses' work load, lack of knowledge and skill for audit and feedback also constitute challenges in the implementation of audit and feedback (Espito & Dal-Canton, 2014)^[16].

National Institute for Health and Clinical Excellence (2007)^[17], stated possible challenges associated with implementation of change to include: awareness and knowledge of an individual on the need for change, practical barrier such as need for new equipment, service configuration to make way for new innovation, motivated individual who aspires for change. Others are: individuals' belief in his ability to adopt a new behaviour impact on change implementation and having the skill needed for the change to occur is not there.

Kediegile, and Madzimbamuto (2014)^[18], saw audit as a method of addressing clinical environment to bring about change and improvement but noted that poor relationship between and within the team and lack of integration with other activities act as obstacles to the process and implementation of the feedback.

Johnson, Crombie, Davies, Alder and Millard (2000)^[6], conducted a study on reviewing audit barriers and facilitating factors for effective clinical audit in place through retrospective reviews of 93 publications on audit in the United States of America. The study revealed that perceived benefits of audit included improved communication among colleagues and other professional groups, improved patient care, increased professional satisfaction, and better administration. Some disadvantages

identified by the study include; diminished clinical ownership, fear of litigation, hierarchical and territorial suspicion, and professional isolation. Main barriers to clinical audit noted in the study include lack of resources, lack of expertise or advice in project design and analysis, problem between groups and group members, lack of overall plan for audit and organizational impediments. The key facilitating factors to audit identified in their study included the inclusion of modern medical record system, effective training, dedicated staff, protected times, and shared dialogue between consumers and providers of nursing care. They concluded that clinical audit is a valuable assistance to any programme which aims to improve the quality of health care delivery but requires coherent strategy and positive professional attitude.

Cheater and Keane in 1998^[19] conducted a regional study on nurses' participation in audit with 99 audit lead/support staff using qualitative method. They identified some obstacles to nurses' participation in audit in their study include: hierarchical nurse and doctor relationships, lack of commitment from senior doctors and managers, poor organizational links between departments of quality and audit, work load pressure and lack of protected time, availability of practical support, and lack of knowledge and skill for audit. The concluded that despite the fact that nurses were undertaking audit and some were leading development in their settings, a range of structural and organizational, inter-professional factors were still impeding progress.

In the Southeast tertiary institutions, so much has been said about nursing audit and feedback process as means of improving quality of patient care. Institutions have also set up audit committees to ensure that the process works out but there seem to be little or no improvement in the process. The questions in the minds of the researchers are whether the audit process is faulty or that the implementation of the feedback after audit is experiencing set back. In view of these, the researchers embarked on this study to determine the challenges faced by the nurses in the implementation of nursing audit feedback. More so, there is no evidence that study of this nature has been conducted in the Southeast Nigeria. Therefore, this study will bridge the gap, provide evidence for policy making and literature for other researchers in similar or related area.

The researchers' question remains

1. What are the challenges faced by the nurses in the implementation of nursing audit feedback in patients care in the Southeast Nigeria?

We hypothesized that

1. Demographic variables of the nurses such as age, gender, years of practice experience, do not play significant role in the challenges they face in the implementation of nursing audit feedback
2. Location of health institutions does not play significant role in the challenges the nurses face in the implementation of nursing audit feedback

2. Materials and Methods

A descriptive survey was conducted in three randomly selected tertiary hospitals in the Southeast Nigeria. Southeast Nigeria comprises of five Igbo-speaking states with great variety of developments and bee-hive activities. Majority of the residents are educated. They are mostly

business men and women, artisans and civil servants with high level of demand for quality healthcare services from the healthcare providers. The population for the study comprised of one thousand, seven hundred and seventy-two (1,772) nurses. Sample of 316 was statistically drawn from the population using Epi info-7 statistical method for calculating sample size. Sample size per hospital was determined proportionately in line with the nurses' population per hospital. Simple random sampling procedure was applied in selecting the participants per hospital until the required proportion was selected.

Data collection was with investigators'-developed nursing audit feedback challenges questionnaire structured in five-point scale and guided by in-depth literature review. The instrument was validated for contents and tested for internal consistency using Crombach's Alpha which yielded an index 0.70. Ethical approval from the Research and Ethics Committee of the selected hospital with number: NAUTH/CS/66/VOL.9/2016/85, was obtained for the study. Participation in the study was by self-will. Participants were met during their break time and any other time convenient for them as they requested for data collection. Instrument administration and retrieval lasted for six (6) months.

Data generated were expressed as \bar{x} mean \pm standard deviation for continuous variables. Comparative analysis was done using Man-Whitney U test for two non-parametric variables, while Kruskal Wallis test was used to compare multiple non parametric groups. Correlation analysis involving non parametric variables was done using Spearman's Rank Order Correlation test. The test of statistical significance was set at $p < 0.05$. SPSS/IBM Statistical Software (version 20.0) was used to carry out all statistical analyses. Mean score of challenges of

implementing nursing audit was based on Likert scale of 1-5. Cut off for challenges: Score < 3.0 = Less challenging; Score ≥ 3.0 = Very challenging.

3. Results

Demographic variables of the respondents n=316

Table 1

Variable	Frequency	Percentage (%)
≤ 30 Years	36	11.4
31 - 40 Years	140	44.3
41-50	117	37.3
> 50 Years	23	7.0
Gender		
Males	33	10.4
Females	283	89.6
Years of practice experience		
< 10 Years	156	49.4
10 - 20 Years	134	42.4
21 - 30 Years	25	7.9
> 30 Years	1	0.3
Level of education		
RN	21	6.6
RN/RM	140	44.3
BSc/Med	138	43.7
MSc/Bed	16	5.1
PhD	1	0.3

NB: Mean age and SD of the participants was 41.7 \pm 7.6 years

Objective

To determine the challenges of implementing nursing audit feedback in patients' care among nurses in the Southeast Nigeria.

Table 1: Challenges of implementing nursing audit feedback in patients' care

SN	Item	SD N (%)	D N (%)	U N (%)	A N (%)	SA N (%)	Mean Score*	Sd
1	Improper communication of findings.	7(2.2)	29(9.2)	70(22.2)	151(47.8)	59(18.7)	3.71	0.94*
2	Uncooperative attitude of other professional in the health care system.	5(1.6)	55(17.4)	93(29.4)	112(35.4)	51(16.1)	3.47	1.00*
3	Change is not practicable in nursing	63(19.9)	123(38.9)	100(31.6)	30(9.5)	0(0)	2.30	0.89
4	Short time frame for implementation of standard action expected of the nurse before re-audit.	28(8.9)	37(11.7)	74(23.4)	80(25.3)	97(30.7)	3.57	1.27*
5	Rating format is not acceptable	51(16.1)	100(31.6)	95(30.1)	58(18.4)	12(3.8)	2.62	1.07
6	Outcome of the process is adjudged intangible in client care	48(15.2)	98(31.0)	92(29.1)	46(14.6)	32(10.1)	2.73	1.18
7	Negative attitude of the nurses towards change.	22(7.0)	46(14.6)	84(26.6)	87(27.5)	77(24.4)	3.47	1.20*
8	Institutional policies are not aligned to desired the change	13(4.1)	31(9.8)	60(19.0)	110(34.8)	102(32.3)	3.81	1.11*
9	Easily amenable to behaviour change by nurses.	54(17.1)	81(25.6)	85(26.9)	66(20.9)	30(9.5)	2.80	1.22
10	Other allied professions do not go for audit, why nursing	16(5.1)	27(8.5)	67(21.2)	119(37.7)	87(27.5)	3.74	1.10*
11	Lack of the knowledge of the need among nurses.	15(4.7)	24(7.6)	75(23.7)	112(35.4)	90(28.5)	3.75	1.09*
12	Materials for implementation of feedback are lacking	15(4.7)	28(8.9)	53(16.8)	141(44.6)	79(25.0)	3.76	1.07*
13	Employers' satisfaction is not often the pursuits of the nurses	85(26.9)	100(31.6)	76(24.1)	37(11.7)	18(5.7)	2.37	1.16
14	Reporting mechanism is not amenable to change	6(1.9)	43(13.6)	73(23.1)	115(36.4)	79(25.0)	3.68	1.05*
15	Audit is not seen by majority as means of gaining satisfaction on the job	7(2.2)	42(13.3)	82(25.9)	112(35.4)	73(23.1)	3.63	1.04*
16	Audit and feedback process does not motivate nurses	80(25.3)	101(32.0)	88(27.8)	35(11.1)	12(3.8)	2.36	1.09
17	Nursing audit tends to focus on mismanaged cases alone	8(2.5)	0(0)	40(12.7)	139(44.0)	129(40.8)	4.20	0.85*
18	Time interval between audit feedback and re-audit does not allow for integration of desired change action	13(4.1)	20(6.3)	52(16.5)	134(42.4)	97(30.7)	3.89	1.04*
19	Feedback is not often guided by the audit committee members	28(8.9)	52(16.5)	83(26.3)	100(31.6)	53(16.8)	3.31	1.18*
20	Nurses do not affect practice change in a haste	70(22.2)	108(34.2)	90(28.5)	38(12.0)	10(3.2)	3.71	0.94*
21	Nurses view audit as witch-hunting of nurses	48(15.2)	119(37.7)	118(37.3)	29(9.2)	2(0.6)	3.47	1.00*

Overall mean score = 3.24 \pm 0.24; *Mean score of challenges of implementing nursing audit was based on Likert scale of 1-5. Cut off for challenges: Score < 3.0 = Less challenging; Score ≥ 3.0 = Very challenging. Abbreviations: SD = Strongly Disagree (1), D = Disagree (2), U = Undecided (3), A = Agree (4), SA= Strongly Agree (5); Sd = Standard deviation

Table shows the assessment of the challenges of implementing nursing audit and feedback in patients' care

among nurses in the Southeast Nigeria. Data shows that the nurses found 15 of the 21 items as ‘very challenging’, while six of the items were rated as ‘less challenging’. The overall

\bar{x} mean (SD) score was 3.24 ±0.24 which indicates that the nurses believe that the implementation of the nursing audit and feedback in clients’ care was very challenging.

Table 2: Association between demographic variables (age, gender, years of practice experience and educational level) in the implementation of nursing audit feedback in patients’ care

Age Group	N	Overall Mean Challenge Score ± SD	Mean Rank
≤ 30 Years	36	3.23 ± 0.25	161.28
31 - 40 Years	140	3.26 ± 0.24	165.36
41 - 50 Years	117	3.22 ± 0.24	151.71
> 50 Years	23	3.21 ± 0.17	146.91
Total	316		

Statistics (Kruskal Wallis test): $\chi^2 = 1.85$; DF = 2; P = 0.605

Gender	N	Overall Mean Challenge Score ±SD	Mean Rank	Sum of Ranks
Males	33	3.23 ± 0.22	155.13	4964.00
Females	283	3.24 ± 0.24	158.33	44806.00
Total	316			

Statistics (Man Whitney U test): Coefficient = 4436.0; Z = -0.189; p = 0.850

Years of practice experience	N	Overall Mean Challenge Score ± SD	Mean Rank
< 10 Years	156	3.27 ± 0.23	172.67
10 - 20 Years	134	3.20 ± 0.24	142.89
21 - 30 Years	25	3.23 ± 0.20	157.84
> 30 Years	1	3.0 ± 0	57.00
Total	316		

Statistics (Kruskal Wallis test): $\chi^2 = 8.93$; DF = 2; P = 0.030

Level of education	N	Overall Mean Challenge Score ± SD	Mean Rank
RN	21	3.24 ± 0.22	164.33
RN/RM	140	3.24 ± 0.24	161.15
BSc/Med	138	3.22 ± 0.24	153.04
MSc/Bed	16	3.29 ± 0.26	171.66
PhD	1	3.33 ± 0	207.00
Total	316		

Statistics (Kruskal Wallis test): $\chi^2 = 1.31$; DF = 2; P = 0.859

Kruskal Wallis test indicated lack of significant differences (p = 0.605) in the mean rank of challenges among the age groups. Man Whitney U test indicated lack of significant differences (p = 0.850) in the mean rank of challenges between males and females.

Kruskal Wallis test indicated significant difference (p =

0.030) in the mean rank of challenge faced by nurses among the different years of job experience. Kruskal Wallis test indicated lack of significant difference (p = 0.859) in the mean rank of challenges faced by nurses among the different levels of nursing education.

Table 3: Association between the location of health institution and the challenges faced by nurses in the implementation of nursing audit feedback in patients’ care

Mean Level of Challenges Score vs. Location of Institutions	
Number of Participants	316
Spearman’s Rank Order of Correlation Coefficient (r _s)	0.125
P – Value	0.026

Spearman’s Rank order correlation analysis for non-parametric data indicated significant (p = 0.026) association between location of health institution and level of challenges faced by nurses in the implementation of nursing audit and feedback process.

4. Discussion
Challenges of implementing nursing audit feedback in patients care among nurses in Southeast Nigeria

The study revealed that the nurses face different levels of challenges in the implementation of nursing audit feedback. Overall mean score of 3.24 and standard deviation of ±0.24 indicated very challenging situation. The nurses identified

improper communication of audit report (\bar{x} =3.71, SD±0.94), un-cooperation attitude of other professionals in the health care system (\bar{x} =3.47, SD±1.0), short time frame for implementation of standard care actions expected of the nurses (\bar{x} =3.47; SD±1.20). Other challenges expressed by the nurses include; that the reporting mechanism is not amenable to change, institutional policies are not aligned to desired change, lack of materials for care actions in implementing the feedback. Greater mean scores (\bar{x} =4.20, SD±0.85) were recorded on the items that stated that nursing audit tends to focus on mismanaged cases alone and that nurses do not affect practice change in a haste. The

findings, align with the assertion of ANA (2010) [15] that implementation of nursing audit and feedback is faced with several challenges ranging from institutional or managerial issues as to professional which may include, untimely and incomplete feedback, non-provision of materials and equipment by the management, attitude of the nurses, un-amenable to change among nurses, un-cooperative attitude of other professional in the health care system, shortage of staff, and non-flexible institutional policy. Findings also agree with the assertion of Espito and Dcal-Canton (2014) [16] that nurses' workload and lack of knowledge and skill for audit and feedback constitute challenges in the implementation of audit and feedback report. The findings also agree with the report of Bucknall, *et al* (2017) [20]. Ivers, *et al* (2012) [21], opined that feedback is dependent on the characteristics of the organizational context, the individual recipient, the message and the source of feedback.

Association between demographic variables and the challenges faced by the nurses in the implementation of nursing audit feedback in patients care

Findings shows that age does not play significant role in the challenges faced by the nurses in the implementation of nursing audit feedback ($\chi^2 = 1.85$; DF = 2; $p = 0.605$). The hypothesis was therefore accepted. This could be likened to the fact that irrespective of age the nurses are faced with relatively the same challenges in the implementation of audit feedback.

Finding accepts the hypothesis which states that gender does not play significant role in the challenges faced by the nurses in the implementation of nursing audit feedback (Coefficient = 4436.0; Z = -0.189; P = 0.850). Majority of nurses are females and this study had most of the respondents as females. This might have affected this finding in one way or the other as the few males might not have shown significant impact in the outcome.

Finding rejects the hypothesis which states that years of job experience does not play significant role in the challenges faced by the nurses in the implementation of nursing audit feedback ($\chi^2 = 8.93$; DF = 2; P = 0.030). For years of experience to influence the challenges experienced by the nurses in the implementation of audit feedback could be on the basis that the younger nurses might view the entire audit with negative attitude, otherwise all the nurses' work under the same circumstance.

Finding from the study indicated lack of significant difference in the mean rank of challenges faced by nurses among the different levels of nursing education. This finding therefore accepts the above hypothesis which states that levels of nursing education does not play significant role in the challenges faced by the nurses in the implementation of nursing audit and feedback ($\chi^2 = 1.31$; DF = 2; P = 0.859).

Association between the location of health institution and the challenges faced by nurses in the implementation of nursing audit feedback in patients' care

Spearman's Rank order correlation analysis for non-parametric data indicated significant ($p = 0.026$) association between location of health institution and level of challenges faced by nurses in the implementation of nursing audit and feedback process. This finding rejects the hypothesis which states that there is no association between

the location of health institution and the challenges faced by nurses in the implementation of nursing audit feedback in patients' care. These institutions are tertiary and it would be envisaged that the work environment and types of services provide would be somewhat similar but possible variation in management practices specific to each environment could bring about this outcome

5. Conclusion

Nursing audit and feedback process is a quality improvement measure that will help to improve quality of nursing care in the Southeast Nigeria if properly carried out with the feedback implemented appropriately. The bottleneck in the implementation of the feedback has managerial, professional and individual contributions which continue to affect the expected quality care from the nurses. Nurses, the policy makers, professional associations and Nursing and midwifery Council of Nigeria should play great role in achieving the goal of nursing audit feedback to ensure better patients' outcome in the hospitals.

Implication of the Study

Implementation of nursing audit feedback is paramount to achieving standard nursing care with expected quality. Where challenges exist to the extent that nursing care found to be short of standard as identified through audit cannot be improved upon due to the challenges, the possibility of achieving the expected quality care among nurses. This will generally affect the health system because failure by the nurses to achieve quality care may lead to poor patient outcome as health care provision is more or less interdisciplinary action among the professionals in the health system.

Recommendations

The researchers recommend close monitoring of the clinical nurses in their day to day practice as well as determining the best means of breaking the bottlenecks through coaching, guidance, counseling and reward for those that implement audit feedback report.

Counselling and coaching should be applied as means of guiding the younger nurses in the implementation of audit feedback to increase rate of practice change and improve standard of care.

Nursing audit feedback should be communicated directly to the concerned nurses at group level and on individual basis through the audit committee, the nurse managers and monitoring of the implementation of the feedback strictly carried out.

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