Academic Nurse Educators' Perceptions of Classroom Assessment Practices as Means for Quality Nursing Education

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Abstract

Assessment is considered a challenging task; to this effect, in order to have an efficient classroom assessment, an adequate understanding and mastery of assessment practices is needed by nurse educators. Nurse Educators' are very essential in implementing the right assessment approaches since they possess the necessary assessment practices such as their attitudes, values, and beliefs etc. The study sought to gain an understanding of the extent to which Nurse Educators' use different classroom assessment tools to understand and support both the teaching and learning processes in undergraduate studies. Descriptive survey research design was employed and 397 Nurse Educators participated in the study. The instrument used for data collection was 'Bloom's Cognitive, Affective, and Psychomotor BehavioursQuestionnaire' (BCAPBQ) with 43-items. The internal consistency of the instrument was determined using Cronbach's Alpha and the reliability index of 0.81 was obtained. The study discovered thatnurse educators to higher extent perceived the levels of behavioural objectives as means for providing quality nursing education. The findings also showed the extentnurse educators' assessment practices measure each levels of Bloom's Taxonomy behaviours.The findings support previous findings of authors who found that teachers' perceptions of classroom assessment affected their classroom assessment practices.The findings of this study will lead to a broader scale with the basic data it supplies. It will expose the nurse

educators to different strategies used in monitoring undergraduate students' nurses learning. The research supplies good idea of the instruments for measuring those staked learning outcomes in nursing education.

Keywords: *academic nurseeducators' perceptions, classroom assessment practices, quality nursing education*

I.   Introduction

The process by which learners are expected to master concepts/activities at the end of every teaching or learning exercises is learning objective. The purpose of teaching and learning is to provide learners with the relevant skills and attitudes required to function effectively in the society (UNESCO as cited in Acholonu&Nwanebo, 2018). The inculcation of right attitudes, values and skills at any level of education is possibly through teaching and assessment processes which involves all the learning objectives (Acholonu&Nwanebo, 2018). Assessment plays important roles in determining the quality of education; quality education here refers to the extent to which the roles of education at that level were attained with respect to learning domains. These domains figuratively belong to the head, the heart and the body and any comprehensive assessment of the results of undergraduatestudents'nurses must reflect these domains. For education to achieve its intended purpose, academic nurse educators' perception must cut across development in all three domains.

Perception is the way we view things. In the opinion of (Munhall, 2008), perception is like a set of lenses with which we are able to see things as they really are; this according to the author is concerned with the act of appreciating facts and knowledge with the help of one`s senses such as having a clear understanding of figures, forms, languages, behaviours, and actions. Therefore, the ways through which things are viewed by educators depend on how they think about those things; this implies that the opinions, judgments, experiences and reactions of academic nurse educators are influenced by their perceptions. In essence, perception enables teachers to attend to information that are sensory related within their environment and also allows teachers the ability to meaningfully communicate with the environment.

Empirical evidences relating to the perceptions held by teachers have shown that trainings and experiences of teachers are likely to be influenced by their knowledge on teaching and learning; more so, evidences abound on basic assumptions of teachers` perception, these

assumptions include the fact that the beliefs and judgments of teachers, the translation of teaching information into relevant classroom practices, the knowledge of the kind of perceptions held by teachers which can facilitate improvements in teaching and other education programmes are determined by their perceptions (Nga, 2009, p.8). In the report of (Brown, 2004), the knowledge held by teachers on assessments is dependent on the beliefs that assessment enhances students` learning and teacher's instructions as it provides valued data necessary for decision making; it also enables students to be responsible for what they learn; it makes teachers and relevant school authorities give detailed assessment and it is equally immaterial to both students and teachers. According to (Brookhart, 2003), several studies have proven that one of the most crucial task of a classroom teacher is learner's assessment as it can greatly influence the ideas learners have on assessment. Teachers' perceptions of assessment are important as they serve as evidences and influences on the understanding teachers have with regard to what is being taught and learnt (Kurebwa&Nyaruwata, 2013). Assessment is a difficult task; as a result, the knowledge on the approaches and mastery of assessment strategies is relevant for an efficient classroom assessment. Therefore, skillfulness and sound training is required on the part of academic nurse educators in order to ensure smooth and proper application of classroom assessment. In essence, quality academic nurse educators and sound undergraduate student's nurses are needed in the health education system; this quality is determined based on the level of attainment of some set nursing educational goals and objectives.

According to (Adebayo, et al, 2004), an educational quality is made up of two aspects- the internal and external aspects; the internal aspect deals with the implementations of school's objectives and goals whereas, external aspect deals with implementations of goals at the national level which are fundamental to institutions in obtaining quality in education. According to (Fadokun, 2005) quality education refers to the efficacy and effectiveness of educational provisions in meeting up with set goals and the relevance of such quality to societies. But in all circumstances, however quality of educational provision in which questions like what is standard, what is personnel, equipment, materials, achievement etc. are featured and addressed whether internally or externally, has been a common denominator in nursing education. It has always been accepted without much challenge that the measure of quality is the performance of students in school and public examinations (Nwana, 2007). This need not always be so, as there are alternative and equally valid strategies for assessing quality of educational provision.

Education is responsible for causing changes in learners' behaviour; and of course, the degree and worth of such changes is ascertained by the educators who are responsible for writing out the lesson plans and schemes in accordance with the objectives of national curriculum, hence, facilitating learning through the establishment of relationships among students and organizing learning materials for the students; more so, these educators/teachers ensure that the relevant skills and attitudes needed by students for best performances are put in place. The academic nurse educator's role in achieving educational objectives is central because plans and policies can be beautifully articulated on paper, the implementation strategies well outlined and the organizational structure well set in terms of who does what and under what time frame but it is the teacher who executes the plan and powers. Adequate funds for running the school system may be in place. Notwithstanding, it is a known fact that teachers` factor is a deciding factor regarding in the attainment of desired goals and objectives which is capable of enhancing the analysis and executions of all the plans, policies, fund as well as the restructuring of the organization. What academic nurse educators should do or not do and what undergraduate student nurses are expected to learn may have been specified and implemented but the question is; how does an academic nurse educator assesses what undergraduate student's nurses have achieved at the various domains of learning?

Cognitive domain is best concerned with intellectual behaviours- these behaviours require some level of mental activities and reasoning (Iwuji, 2010). The idea of higher order of thinking according to (Bloom, 1956) which is built on the taxonomy of educational measures is the Bloom`s Taxonomy. At this stage, learning is said to follow some processes such as moving from a lower to a higher level of learning. according to (Huitt, 2003), cognition may be seen as a dynamic process through which new ideas can be processed, stored or learnt based on mental abilities of learners and not what the teacher creates. According to (Halpern, 2004), learners have the ability to transform new knowledge in very unique and unpredicted manner. This according to the cognitive theory of learning by (Mayer as cited in Udoukpong&Okon, 2012) is referred to as that which uses the metaphor of humans as processors of information. This entails that human activities and ideas can be understood if we are able to imagine how the information in the human mind is being analyzed and recalled. (Doolottle, 2001) mentioned that facts on information processing theories have given rise to several principles on human actions and thinking; one of these principles asserted that the worth of remembering is dependent on extent

degree to which ideas and experiences are processed (Craik & Lockhart as cited in Udoukpong&Okon, 2012). This phenomenon according to (Udoukpong&Okon, 2012) is called 'depth of processing'; this implies the amount of mental efforts and worth of mental resources utilized while learning is ongoing.

Knowledge of these domains and the taxonomy allows academic nurse educators to assess students psychologically and ask specific question in order to test different levels of knowledge relevant to the subject and determine the developmental stage of the student. The Federal Republic of Nigeria (2013) stated that evaluation for certification at the tertiary education will be based on continuous assessment and summative examinations. According to FME, a tool that considers how students are being ranked based on their performances with respect to their achievements at the three domains of learning during a given period of learning is continuous assessment (FME, 1985). This implies that an assessment of this kind improves student's performances and learning through the utilization of several evaluation methods. From the above definition, it can be deduced that evaluation ought to be comprehensive and should cover both the cognitive and the non-cognitive learning outcomes.

Measuring cognitive learning outcomes will involve all the intellectual aspects of behaviour. To evaluate these, one would be looking out for evidence of or manifestation of such skills as in comprehension, critical and creative thinking (organizing, analyzing, interpreting, generalizing), a problem solving, questioning etc. To evaluate these, instruments needed are; assignments, quizzes, tests, essay/objective, homework and class work. Tests are the most commonly used instrument for assessing cognitive learning outcomes. There is standardized test which include intelligence and diagnostic tests as well as the teacher made tests.

Measuring Non Cognitive Learning Outcomes will involve the affective and psychomotor aspects of behaviour. To evaluate affective outcomes, the tools needed include observation method, Guess-who by peers, Anecdotal records, Checklist, interview and Sociometric technique. To also evaluate the psychomotor learning outcomes, the following instruments are used; Observation, Class work, Assignment, Project, Questionnaire, Homework and Speed test (Acholonu, 2014). It is important that first and foremost, the teacher should clearly spell out the objectives or learning outcomes at each of the stated levels in the three domains before evaluation. Having done this, good knowledge of the instruments for measuring those stated learning outcomes is needed by the teacher. He or she should also possess the skills

for designing these tools and administering them. Unfortunately, some of the academic nurse educators made tests used for measuring the cognitive learning outcomes is sometimes not constructed well enough; they may therefore lack content validity. To properly plan a test, academic nurse educators should identify the purpose of the test, the objectives to be covered, the content to deal with and the test items. For this reason, a test blue print needs to be prepared. Regrettably, it has also been found that majority of educators do not have the expertise to carry out continuous assessment in the affective and psychomotor domains (Unachukwu&Onunkwo, 2004; Akinsola, 2006).

According to Ndalichako, (2015), the reason assessment is done by teachers is to get the students ready for final examinations. However, (Rahman & Ahmed, 2010) stated that the methods employed by teachers in assessing students are very limited. In line with the above view, it is recommended that different approaches for monitoring undergraduate students' nurses learning need to be adopted by academic nurse educators; in essence, a variety of assessment strategies that can take into considerations different learning techniques should be used as no single strategy can be effective for all students. In addition, strategies such as writing, homework, quizzes etc. can aid teachers in knowing the processes use by students while learning (Rahman & Ahmed, 2010). The finding of (Atanda&Lameed, 2006) negates the findings of (Bulus, 2016) on experience and act of teaching in the manner of affective and psychomotor. According to(Nenty, et al, 2007), the quality at which learners think and create ideas is not different from that experienced decades ago as lamented by Benjamin Bloom. As a result, advancement in the domains of learning is relevant in order to keep up with societal needs.

A comprehensive assessment of the results of schooling in tertiary education should include all the three domains. In addition, the perceptions of academic nurse educators on assessment are necessary as existing evidences suggest that ideas of teachers on teaching, learning and curricula strongly influence the way students are being taught and how they learn or achieve including teachers' classroom assessment practices are directly related to student's instructions and learning. The importance of classroom assessment cannot be overemphasized as it is responsible for informed decisions on subsequent lessons by teachers and it equally leads to instructions that fit students' needs and possibilities (Veldhuis as cited in Thinwiangthong, Eddy &Inprasitha, 2020). Most studies carried out on the perceptions of classroom assessment practices held by teachers have been on cognitive domain while neglecting the other domains of

leaning. The academic nurse educators need to have a good idea of the instruments for measuring those staked learning outcomes. Academic nurse educators should also possess the skills for designing these tools and administering them. Unfortunately, some of the academic nurse educators made tests used for measuring the cognitive and affective domains of learning outcomes are sometimes not constructed well enough. Majority of academic nurse educators do not have the expertise to carry out continuous assessment in the affective and psychomotor domains.

The study attempted to determine the level to which the cognitive, affective and psychomotor behaviours are being perceived by academic nurse educators as means for quality nursing education as well as to determine the levels at which academic nurse educator's classroom assessment practices measure up to each of the level of the behavoural objectives? The research questions below were addressed.

1. To what extent do the perceptions of academic nurse educators on the levels of Bloom's cognitive, affective and psychomotor behaviours serve as means of providing quality nursing education?

2. To what extent do the classroom assessment practices done by academic nurse educators measure each of the educational objectives?

3. What perceptions on assessment are held by academic nurse educators in enhancing the quality of nursing education?

II. Materials and Methods

Study Design

Descriptive survey design was adopted for the study and the instrument used for this study was a structured questionnaire. The study was conducted at the University of Nigeria using three hundred level undergraduate student's nurses. The study focused on the extent to which academic nurse educators at University of Nigeria, Nsukka see cognitive, affective and psychomotor behaviours as a means of providing quality nursing education.

Participants

The study participants comprised of 397 academic nurse educators from both the Department of Nursing Sciences, University of Nigeria and University of Nigeria Teaching Hospital (n=157 and n=240 academic nurse educators respectively). The participants were academic nurse educators currently teaching at the Institution.

Instrument

The instrument used for the study is titled 'Bloom's Cognitive, Affective, and Psychomotor Behaviours Questionnaire' (BCAPBQ). The BCAPBQ consists of three sections-A, B and C. Section A focused on academic nurse educators` perceptions of classroom assessment practices on the cognitive, affective and psychomotor behaviours as a means of providing quality nursing education, Section B focused on academic nurse educators perceptions on how classroom assessment practices measure the levels of Bloom's cognitive, affective and psychomotor behaviours as compared to the extent to which they enhance quality in nursing education while section C focused on the perceptions of academic nurse educators towards assessment. Section A contains 18 levels of Bloom's taxonomy of Education, B comprised 19 current assessment practices and C consisted of 6 assessment items totaling 43 items; this instrument was administered by the researchers. The items in section B and C were arranged on a four-point scale in the order of 'very low extent, low extent, high extent and very high extent' with scores of 1, 2, 3 and 4 accordingly while the items in section D were arranged from 'strongly disagree, disagree, agree and strongly agree' with ratings of 1, 2, 3 and 4 respectively.

Validity and Reliability

The validation of the instrument was done by three specialists in the field. Items that were found to be incorrect were removed while other items were restructured; this was followed by the selection of forty (40) academic nurse educators for trial testing. The reliability of the instrument was arrived at using Cronbach Alpha, this yielded the reliability index of 0.81.

Analysis

The evaluations of the data acquired from the respondents were done using statistics package program SPSS 23.0. The data was analyzed using mean and standard deviation while the hypothesis was tested using z-test. The criterion means of 2.5 is used as benchmark for decision making since the instrument was on a four-point rating scale; thus, a mean rating of 2.5 and

above for any item was considered accepted whereas mean scores below 2.5 were considered rejected.

Research Ethics

The ethics committee at the university where the research was conducted granted ethical approval. Before the commencement of the study, the respondents (academic nurse educators) were presented with informed consent forms to fill and sign. The informed consent forms were properly filled and signed. Also, the authors adhered to the ethical standard specification of the World Medical Association, (WMA, 2013), and with that of the American Psychological Association (APA, 2017).

III. Results

Table I

Demographic Characteristics of Academic Nurse Educators

University of Nigeria:	N= 397	Mean	SD	%
Department of Nursing Sciences	157			40
University Teaching Hospital	240	198.5	41.5	60
Gender				
Male	152			38
Female	245	198.5	46.5	62
Academic Qualifications				
B. Sc	111			28
Masters	152			38
Ph.D	134	132.3	16.8	34
Rank				
Graduate Assistant	86			22
Assistant Lecturer	92			23
Lecturer II	102			26
Lecturer I	31			8
Senior Lecturer	39			10
Associate Professor	24			6

Professor	23	56.7	32.4	5
Age				
25-30	37			9
31-40	96			24
41-50	186			47
51 and above	78	99.3	54.5	20
Religion				
Christian	383			96
Muslim	14	198.5	184.5	4

The majority of the participants were between the 41 to 50 years old (47%) and approximately 50% of participants (38% males and 62% females). 40% of the participants work in nursing sciences department (n=157) while 60% work in the university teaching hospital (n=240). In the demographic information, most of the academic nurse educators were Lecturer II (26%), followed by Assistant Lecturers (23%) and the least among them was Professors (5%). All the respondents are degree holders, 38% are holders of master's degree, whereas 34% of the participants are doctorate degree holders.

Table 2

Academic Nurse Educators Perception level of Educational Objectives as a means of providing Quality Nursing Education

S/No	Item Statement	$\overline{X}$	Std	Remark
	In assessing my students, I give tasks to cover the following;			
1.	Recall of facts	3.16	0.93	HE
2.	Understanding	3.17	0.85	HE
3	Application	2.93	1.06	HE
4.	Analysis	2.79	1.03	HE
5.	Synthesis	2.64	1.04	HE
6.	Evaluation	3.12	1.06	HE
7	Receiving	3.16	0.99	HE
8	Responding	3.09	1.05	HE

9	Valuing	2.91	0.99	HE
10	Organization	3.04	0.94	HE
11	Characterization	2.80	0.97	HE
12	Perception	3.05	0.99	HE
13	Set	2.79	0.93	HE
14	Guided response	2.88	1.00	HE
15	Mechanism	2.81	1.02	HE
16	Complex overt Response	2.32	0.89	LE
17	Adaptation	2.76	0.80	HE
18	Origination	2.53	0.81	HE

Note: Low Extent= LE; High Extent= HE

Table 2 showed the item-by-item means and standard deviations on howacademic nurse educators perceive cognitive, affective and psychomotor behaviours as means of providing quality nursing education. The result indicated that academic nurse educators to high extent perceived the levels of cognitive, affective and psychomotor as means of providing quality education, except for item 16 which is low extent. This is indicated by the fact that all the items except item 16 have means approximately 3, which indicates high extent of perception, while the mean of item 16 is approximately 2, indicating low extent.

Table 3

Classroom Assessment Practices and Academic Nurse Educators' Measurement in each level of Educational Objectives

S/No	Item Statement	$\bar{X}$	Std	Remark
.	**In assessing students, I use the following test instruments**			
1.	Assignments	3.39	0.89	HE
2.	Quizzes	2.90	1.01	HE
3	Tests	3.53	0.63	VHE
4.	Essay and objective	3.41	0.61	HE
5.	Home work	3.07	1.00	HE

6.	Class work	3.14	1.01	HE
7	Observation method	3.05	1.06	HE
8	Guess-who by peers	2.33	0.96	LE
9	Anecdotal records	2.26	0.93	LE
10	Check list	2.54	0.96	HE
11	Sociometric technique	2.31	0.95	LE
12	Interview	2.52	0.87	HE
13	Observation	3.01	1.09	HE
14	Class work	3.09	0.95	HE
15	Assignment	3.16	0.93	HE
16	Project	2.76	1.05	HE
17	Questionnaire	2.25	0.89	LE
18	Home work	3.00	1.04	HE
19	Speed test	2.61	0.94	HE

Note: HE = High Extent; VHE = Very High Extent & LE = Low Extent

Presented in Table 3 are the item-by-item means and standard deviations on the extent to which academic nurse educators` classroom assessment practices measure the cognitive, affective and psychomotor behaviours. Results in the table shows that all the items, except items 3, 8, 9, 11 and 17, have mean scores approximately equal to 3 for high extent. The mean score for item 3 is approximately 4, indicating very high extent, while the means for items 8, 9, 11 and 17 are approximately 2 indicating low extent. This shows that the academic nurse educators' current assessment practice when it comes to the use of test, to very high extent measures each level of cognitive behaviours. On the other hand, academic nurse educators through their assessment practices measure each level of cognitive, affective and psychomotor behaviour.

Table 4

Academic Nurse Educators Perception towards Classroom Assessment Practices

S/No	Item Statement	$\overline{X}$	Std	Remark
1	Pen and paper examination are enough to assess undergraduate students nurses.	2.08	0.68	DA

2	Test, examination and assessment are the same	2.46	0.83	DA
3.	Objective tests give enough information about undergraduate student's nurses ability	2.09	0.87	DA
4.	Assessment should not necessarily involve multi-method in determining multi –trait about a student.	2.46	0.90	DA
5.	Grading of undergraduate students nurses should not be based on multi-method assessment	2.34	0.91	DA
6	Only test and examination scores are enough to grade undergraduate students nurses.	1.87	0.68	DA

Note: DA = Disagreement

Presented in Table 4 are the item-by-item means and standard deviations on the perception of academic nurse educators towards assessment in enhancing qualitynursing education. All the items in the table have mean approximately equal to 2, indicating disagreement with the item statements. This finding showed that academic nurse educators do not agree with any of the item statements presented in the table.

Table 5

z-test Analysis on Nurse Educators' Current Classroom Assessment Practices

n	no of items	$\bar{X}$	μ	z_{Cal}	df	z_{Crit}	*Decision*
397	19	54.33	47.50	33.07	396	1.645	H_{01} is rejected

From table 5 above, 33.07 is the calculated z-value and it is greater than 1.645 which is the z-critical value; the H_{01} is rejected. The researchers therefore, conclude that the extent to which academic nurse educators' assessment practices involving items that measure each of the levels of cognitive, affective and psychomotor behaviours is significantly greater than the expected mean of 47.5. This finding showed that the extent academic nurse educators' assessment practices measure each levels of cognitive, affective and psychomotor behaviours are significantly above expectation or beyond what is expected.

IV. Discussion

The finding of the study revealed thatacademic nurse educators to high extent perceived the levels of cognitive, affective and psychomotor as means for providing quality nursing education. Contrary to this finding, (Jony, 2015) stated that the reason why students are being assessed by teachers is to evaluate and to promote them to the next class. However, the finding of (Rahman & Ahmed, 2010) showed that the methods employed by teachers in assessing students are very limited. Also, according to (Nenty et al, 2007), the quality of learner's knowledge in the past years is not different from what we have now as stated by Benjamin Bloom; thus, teachers need to use a varieties of approaches in order to monitor students` progress.

The finding revealed significant different on the extent to which academic nurse educators' current assessment practices involve items that measure each of the level of cognitive, affective and psychomotor behaviours. This finding showed the extent academic nurse educators' assessment practices measure each levels ofbehavioural objectives. The levels are significantly above what is expected. This finding supported the findings of Kerubwa&Nyaruwata,(2013) who state that adequate assessment training on psychomotor skills could encourage teachers' perception on assessment in all the domains and skills.Classroom assessment needs to be part of a day-to-day teaching and learning. It should not be seen as an add-on activity as was perceived by some teachers that participated in the Improving Educational Quality Project (Kadyoma, 2004). The findings support previous findings by (Chester & Quilter, 1998) who found that teachers' perceptions of classroom assessment affected their classroom assessment practices.

The result further revealed that assessment should not necessarily involve multi-method in determining multi –trait about a student nurse. All the items in table 4 have means approximately equal to 2, indicating disagreement with the item statements. This finding showed that academic nurse educators do not assess students in psychomotor behaviour. This is in line with the observations of (Sotote&Iyamu, 2006) that teachers are competent enough to set psychomotor instruments in assessment.

V. Conclusion

Teaching across the globe has continued to adopt several ways of reducing teacher centred methods of teaching by introducing active involvement of the learners so as to meet up with challenges of quality learning and teaching objectives which appear to be more practical,

expository and exploratory for learners. The result of this study exposes the fact that Nigeria Education system is still battling with this idea; thus, a variety of approaches are required by teachers in order to monitor the progress students are making. Strategies such as writing, home works, quizzes, assignments, observations etc. can help teachers understand the student during the learning process. Based on this results, academic nurse educators should be encouraged by institutionsto attain adequate training and levels of academic achievement to enable them carry holistic assessment of student nurses on cognitive, affective and psychomotor behaviours.

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Competing Interests

The authors declare no conflicts of interest regarding the publication of this paper.

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