

## **ASSESSMENT OF STUDENT NURSES' CLINICAL LEARNING IN RWANDA**

**C.N. Kayihura, MA**  
University of KwaZulu-Natal  
School of Nursing

**N.G. Mtshali, PhD RN RM**  
University of KwaZulu-Natal,  
School of Nursing

**Corresponding author:** email: mtshalin3@ukzn.ac.za

### **ABSTRACT**

Assessment of clinical learning is imperative in order to ensure that those who become registered nurses are safe and competent practitioners. Literature however reveals that the measurement of clinical skills performance continues to pose a challenge for nurse educators. There is an ongoing debate around the best assessment method in clinical learning, as well as, validity and reliability in assessing clinical learning. Hence, this study aimed at exploring and describing current practices in assessment of clinical learning in a nursing diploma programme in Kigali Health Institute (KHI) in Rwanda.

The study used a quantitative descriptive exploratory design. Data were collected through questionnaires. Participants included nurse educators, students and external examiners and only 117 returned questionnaires.

The results showed that the clinical assessment strategies commonly used in KHI included OSCEs, case presentations, direct observations and standardised patients. Although the findings revealed that there was no policy that guided clinical assessments, data showed that the clinical examination process entailed the planning, preparation, implementation and evaluation phases. Furthermore, there were some measures in place to ensure validity and reliability of assessments. A need for developing a policy on clinical learning assessment emerged as crucial, and the need to build the capacity of nurse educators and external examiners in the area of planning, conducting and evaluating clinical assessment. Furthermore, it emerged as crucial to align assessments with clinical learning outcomes and what is taught in clinical settings; revisit the number of OSCE stations used as that affected the validity and reliability of assessments; review assessment instruments; prepare standardised patients for their roles to ensure consistency in the examination process; revisit the examination process and address the issue of inadequate material resources on the examination day. Recommendations focused on building nurse educators' and external examiners' capacities, improved preparation of students for clinical learning assessment, and further research to explore certain aspects of clinical assessment in depth.

**KEYWORDS:** clinical assessment, clinical learning, nursing education in Rwanda, objective and subjective clinical evaluation (OSCE)

## **INTRODUCTION AND BACKGROUND TO THE STUDY**

Chambers (1998) acknowledged assessment of clinical learning as a long-standing and difficult problem. Chambers further pointed out that there is little consensus as to what is meant by the term competence when applied to clinical nursing practice, thus making the assessment of clinical practice a mainly subjective process. In addition the validity and reliability of tools used to assess clinical practice are difficult to establish, making objective assessment complex at best, and impossible at worst.

McCarthy's (2007) research revealed inconsistencies in the assessment of clinical learning as the majority of preceptors were too inexperienced to conduct clinical assessments; they did not fully comprehend the assessment process, and were not applying all the recommended assessment strategies when assessing students. McCarthy concluded that the preparation of preceptors was inadequate given the complexity of the clinical assessment tools used. Boursicot and Roberts' (2005) work also revealed that inadequate preparation of assessors had an effect on the validity and reliability of clinical assessment. The findings in their study revealed inconsistencies in the assessment of learning which was attributed to inadequate preparation of assessors for the task at hand.

## **PURPOSE AND OBJECTIVES OF THE STUDY**

The purpose of this study was to explore and describe current practices in assessment of clinical learning in a nursing diploma programme in one nursing education institution in Rwanda. The objectives of the study were to identify strategies used to assess clinical learning in a diploma programme in KHI, and to analyse the process of conducting clinical assessment from the stakeholders' perspectives.

## **RESEARCH METHODOLOGY**

A descriptive, exploratory design was used in this study. A non-probability sampling method (convenient sampling) was used to select nurse educators and external examiners and probability sampling using a systematic sampling method was adopted to select students. The total number of participants who returned questionnaires in this study was 117; 18 nurse educators, 89 students and 10 external examiners. Data were collected through the use of three different structured questionnaires with some open ended questions. Each category of participants had a specially designed questionnaire. Data were analysed by using the SPSS (Statistical Package for Social Science): descriptive statistics; frequency distributions and percentages were used. The responses for open-ended questions were analysed using content analysis and categorised according to their characteristics and the information from the literature. Permission to conduct this study was obtained from the institution under study and participants gave written consent to participate in this study. Anonymity and confidentiality were ensured throughout the whole process of conducting this study.

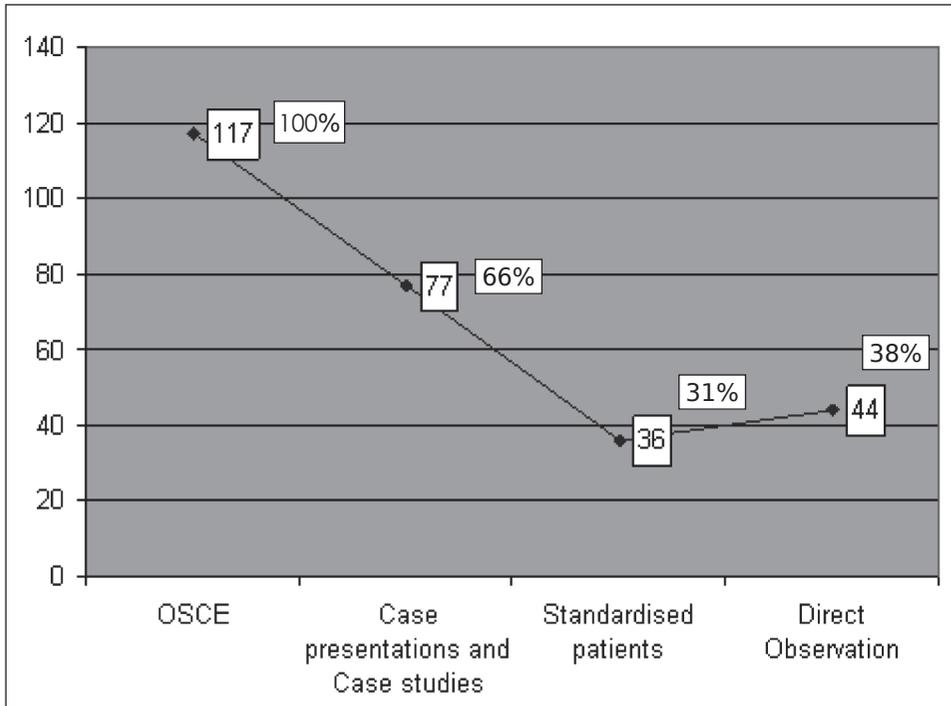
## RESEARCH RESULTS

Only 28% (n=5) of the total group of nurse educators had basic qualifications in education; 17% (n=3) had teaching qualifications at honours degree levels. Only 6% (n=1) had master's degrees in their areas of specialisation; that was midwifery and nursing education. In total, four nurse educators had qualifications in nursing education and one had a qualification in teacher training, but not in nursing education. Other educators, although they did not have nursing education qualifications, specialised in their teaching areas up to master's degree level.

Three out of 10 external examiners, that is, 30% (n=3) of the external examiners had honours qualifications in nursing education, 20% (n=2) had diplomas in nursing, 40% (n=4) had diplomas in midwifery and 10% (n=1) had an additional qualification in population studies. Of the 10 participants from this group, 70 % (n=7) were diploma holders in nursing, while 30% (n=3) were basic and master's degree holders, but without any nursing education qualification.

Nurse educators and clinical instructors participated in the assessment of clinical learning. However, preceptors and ward staff were not involved in the process of conducting clinical assessments. About 61% (n=11) of nurse educators indicated that training on conducting assessments was provided to examiners without nursing education qualifications. This training was in a form of workshops and orientation of new nurse educators. To address the issue of preparation of those nurse educators without nursing qualifications, the basic diploma programme in Rwanda covered teaching and learning, as part of the curriculum development. This section covered teaching, learning theories and assessment of learning. According to participants, the basic curriculum provided all nursing graduates with the basics for teaching and assessment of clinical learning.

Both forms of assessment (formative and summative assessment) were used to assess clinical learning but only summative assessment was considered as the final mark. According to the participants (n=117), the findings revealed that the commonly used clinical learning assessment strategies included OSCEs (n=117; 100%) (See Figure 1), case presentations/case studies (n=77; 66%); direct observations (n=44; 38%); and standardised patients (n=36; 31%).

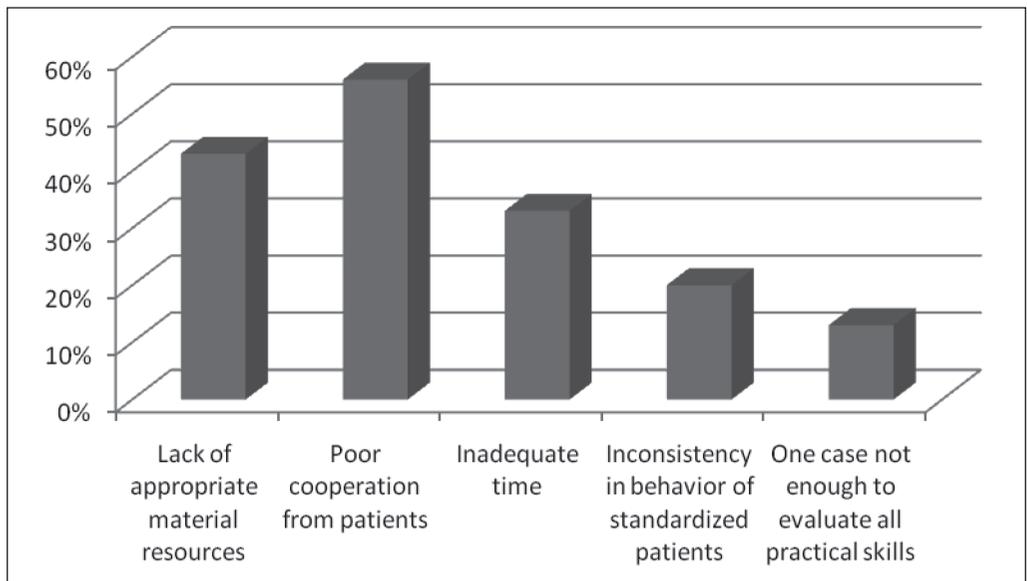


**Figure 1: Clinical learning assessment strategies**

Questions about assessment strategies that assessed practical competence, foundational competence and reflective competence were only posed to nurse educators. Case presentations and OSCE were reflected as best strategies to assess practical competence. According to 78% (n=14) of the nurse educators, case presentations were linked with providing care to patients which were presented by the students. OSCEs were also found to be ideal in assessing practical competence, as they gave a good indication of what the students could or could not do and which tasks they could or could not perform. Foundational competence is the ability to demonstrate an understanding of what one is doing and why he/she is doing it. Foundational competence was reportedly best assessed through case presentations, standardised patient assessments and OSCEs. These strategies enabled nurse educators to assess whether students had the knowledge and understanding that underpin their actions. The findings also revealed that 76.5% (n=13) of nurse educators considered assessment strategies capable of assessing reflective competence; which is the ability to adapt what one does under different sets of circumstances, based on understanding. In reflective competence the learner integrates practical competence and foundational competence into an ability to adapt to change and to unforeseen circumstances and to explain the reasons for doing so.

## Challenges associated with clinical assessment strategies and assessment in general

According to students these challenges included a lack of appropriate material resources (43%; n=38) on the day of the examination; poor co-operation from patients (56%; n=50), especially when using case presentations and standardised patients; inadequate time (33%; n=29); for example time allocated to OSCE stations, and case presentations, were inadequate to complete the tasks at hand (See Figure 2). Eighteen (20%) students reported that standardised patients were sometimes behaving in different ways to different students and this was very frustrating, as students were already nervous as a result of the examination. Twelve (13%) of the students indicated that one case presentation was not enough to evaluate the practical skills learned over a period of one year. Their concern was that only one skill or competence was assessed that was linked to the presented case. They preferred an OSCE where a number of stations were used to assess a variety of skills.



**Figure 2: Challenges associated with clinical assessments**

## Measures taken to ensure validity and reliability of clinical assessment

Only 15 (83%) nurse educators responded to questions about measures taken to ensure validity and reliability in clinical assessments. The responses mainly related to the processes followed when conducting OSCE examinations, the dominant method of assessing clinical learning. According to these nurse educators measures striving to ensure validity and reliability of clinical assessments, included the setting of examination

stations as a team of examiners. The team included discipline experts as well as those with a qualification in nursing education to ensure content validity. This team ensured that the stations were fair representations of clinical learning outcomes. After reaching an agreement on what to include in the examination, the examination instruments and marking guide were submitted to the examiner. The external examiner's role was to check the examination instruments and marking guides and suggest any needed changes. On the day of the examination, a timer was used to ensure consistency in time allocations. The examination stations were manned by one examiner throughout the examination, using the same examination instrument and marking guide; the external examiners had to attend the examination so as to evaluate the examination process. According to the participants, the external examiners gave direction to examiners when there was a need, for example, if a student fainted during the examination process and decided to continue with the examination on the same day. The external examiner assisted examiners in taking decisions in such cases.

### **The role of the external examiner**

According to the nurse educators, the role of the examiner included checking the instruments used for conducting clinical assessment and giving feedback to examiners (94%; n=17 ); monitoring the examination process on the day of the examination for fairness and consistency (83%; n=15); giving direction to examiners if there was any need for making an urgent decisions about deviations from the normal during the examination process (72%; n=13); intervening immediately when any inconsistency arose during the examination process, for example, if an examiner asked probing questions from some students but not from all students (61%; n=11); checking the marking guides or examination tools after the examination process to check consistency and fairness of examiners' marking (72%; n=13), making a final decision about certain stations which were found problematic, for example, failed by all or most of the students, or case or standardised patients that gave students problems during the examination process (83%; n=15).

### **The process of clinical learning**

The process of assessing clinical learning included developing clinical assessment instruments and marking guides, submitting these to the external examiners for quality control, the examiners had to make amendments to assessment instruments according to the external examiners recommendations. Most nurse educators (72%; n=13) (see figure 3) were mainly involved in the actual examination process (implementation), only subject coordinators were responsible for planning and setting clinical examinations, including OSCEs. Eight (44%) nurse educators indicated that they were involved in the planning of equipment and other resources needed. Five (27%) examiners participated in the decision making regarding the assessment methods to be used, planning equipment and resources and the implementation process. However, only 5% (n=27) reportedly participated in informing students about the results of the assessment.

## **The examination day**

Of the respondents 60.0% (n=70) reported that on the examination day, the examination process began by greeting the students and introducing the examiners and external examiner (if present), giving instructions to students, informing the students about the time to be spent per station and about the resting station. Only 58% (n=68) reported that the examination process was concluded by a session with students giving feedback about the examination process and the co-ordinator of the examination giving general feedback to the students. About 70.0% (n=82) reported monitoring of time spent at each station during the examination process.

## **Discussion of findings**

The findings revealed that a variety of clinical assessment strategies (OSCEs, case presentations, direct observations and standardised patients) were used, with OSCEs being the most common, and perceived to be more reliable than other assessments. These findings are consistent with those of Brosnan and Evans' (2006) which showed the OSCE to be a meaningful and fair form of assessment. Brosnan and Evans (2006) warned that the OSCE is a stressful experience and requires considerable preparation effort by students and academic staff. Similar stressful experiences emerged from this study.

This study revealed a clear process of clinical learning assessment. Although the participants did not categorise activities according to phase, the findings revealed that this process included planning, preparation, implementation and evaluation phases. Not all nurse educators were involved in the decision-making and planning processes. They were only involved in the actual process of conducting clinical assessments. Explaining this practice Hyrkas (2002) stated that clinical learning should be conducted under maximum security conditions, with a limited number of people involved in the planning and decision making phases in order to enhance the validity and reliability of the process.

Although the process of assessing clinical learning had positive aspects, the participants raised some concerns. The participants also made some contradictory statements regarding the assessment of clinical learning. These statements could question the clarity of the assessment process to the stakeholders. It was not clear whether the clinical learning assessment policy existed, if it existed what its contents were, and whether the role players in the clinical assessment process were familiar with the policy.

The participants further complained about the limited time allocated to each OSCE station, which made it difficult for them to complete their assessment tasks. To address the issues of time constraints and stress, Brosnan and Evans (2006) propose the use of fewer OSCE stations to allow adequate time to perform each skill, to let the student demonstrate the unity of the skill and to reduce students' stress levels. Smee (2005), however, questions the reliability of assessment if stations are too few. Smee (2005)

maintains that using many short stations should generate scores that are sufficiently reliable for making pass-fail decisions within a reasonable testing period of time.

Although some participants raised concerns about the giving of instructions to students, as well as feedback. Most participants stated that clear instructions were given to students about the examination process and there was a feedback session at the end of the examination. Hyrkas (2002) recommended that instructions should be clear, and that feedback should be provided to the student by examiners immediately after the examination.

Most nurse educators (72%) and external examiners (70%) did not have nursing education qualifications. It was, however, not clear whether the preparation in teaching methodologies at basic qualification level in Rwanda adequately prepared the nurse educators and external examiners for their clinical assessment roles. Inadequate preparation might influence inconsistencies in clinical assessments in this nursing institution. McCarthy (2007) reported that where examiners were inadequately prepared for conducting assessments, inconsistencies were likely to occur. The examiners in McCarthy's study were found to be inexperienced to conduct clinical assessments, did not fully comprehend the assessment process, and were not applying all recommended assessment strategies.

One of the students' concerns was that assessing clinical learning summatively through one case presentation was not giving a true reflection of their level of competence. They recommended the use of OSCEs with multiple evaluation stations, or continuous assessments and one case presentation summatively as being more appropriate for assessing the students' levels of competence at a particular level. That might address the issue of content validity in assessment as stated in Smee (2005). This author also recommended comprehensive assessment because one case presentation might not be enough to assess students' levels of competence.

## RECOMMENDATIONS

- The following recommendations were made to enhance the process of conducting clinical assessments at one institution in Rwanda:
- A structured process for conducting clinical assessment should ensure consistency. This could be achieved through having an institutional examination policy with details about the process, roles, guidelines and expectations of clinical assessment. This policy should be communicated to all stakeholders in clinical assessments. If such a policy does not exist the nursing institution has to develop this policy in consultation with all stakeholders, and it should be used as a guide when planning and conducting clinical assessments.
- Nurse educators who plan clinical assessments should work closely with the clinical instructors/preceptors so as to know what was covered during the learning process in the clinical settings. There should be open communication with students to establish

what they were learning in the clinical setting. Records of learning that took place in the clinical settings should be used to decide what to include in the examination. This would improve the content validity of the assessments.

- The clinical learning process should prepare learners for clinical assessment, which is competency-based learning not skills-based learning, to avoid learners mastering the practical tasks of clinical assessments without being competent practitioners. Learning to pass rather than learning to know should be discouraged.
- Preparation of learners for different assessment strategies should be done by exposing the students during formative assessments to all the strategies that will be used during summative assessments. The students could perform better if they were familiar with each assessment strategy used.
- There is a need to use both continuous and summative assessments to ensure that all clinical learning outcomes are assessed. Assessment should be planned in advance to know what should be covered during continuous assessments and what should be covered during summative assessments.
- The examiners should use a variety of assessment methods to ensure reliability of clinical assessments and to use a number of stations when conducting OSCEs to ensure that a wide range of skills is covered.
- Building the capacity of examiners and external examiners regarding planning, preparing, conducting and evaluating clinical assessment is critical to improve the quality of assessments. Workshops on clinical learning and assessment of clinical learning, or upgrading the education of the key players through undertaking a diploma or degree in nursing education is recommended.

## REFERENCES

- Boursicot, K. and Roberts, T. 2005. How to set up an OSCE. *The Clinical Teacher*. 2 (1): 16–20.
- Brosnan, M. & Evans, W. 2006. Implementing objective structured clinical skills evaluation (OSCE) in nurse registration programmes in a centre in Ireland: a utilization focused evaluation. *Nurse Education Today*.26: 115-122.
- Chambers, M. A. 1998. Some issues in the assessment of clinical practice: a review of the literature. *Journal of Clinical Nursing*, 7 (3): 201–208
- Hyrkas, K. 2002. Expert supervisors' views of clinical supervision: a study of factors promoting and inhibiting the achievement of multi professional team supervision. *Journal of Advanced Nursing*, 38(4):387-397.
- McCarthy, B. (2007). Assessment of student nurses in clinical practice. Available: [http://stti.confex.com/stti/congrs07/techprogram/paper\\_33862.htm](http://stti.confex.com/stti/congrs07/techprogram/paper_33862.htm)
- Smee, S. 2005. ABC of learning and teaching in medicine: skill based assessment. *British Medical Journal*, 326:703-706.