EXPERIENCE EXCHANGE

Innovative education strategies implemented for large numbers of undergraduate nursing students: The Case of one South African university nursing department

Portia B. Bimray, Loretta Z. Le Roux, Lorraine P. Fakude

School of Nursing, University of the Western Cape, South Africa

Correspondence: Portia B. Bimray. Address: School of Nursing, Modderdam Road, Private Bag X17, University of the Western Cape, South Africa. Email: pbimray@uwc.ac.za.

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Abstract

The nurse education and training landscape in South Africa has changed in different ways over the past century, with the result that education and training of nurses does not necessarily translate into an adequate supply of professional nurses for the health care service. Today there is a shortage in this category. Factors which contribute to this shortage include nurses moving from the public to the private sector due to perceived better conditions of service, migration, burden of disease, reduction in bed occupancy and an ageing nurse population. Many professional nurses are now reaching retirement, and it is imperative that the training and supply of young professional nurses for the country be reconsidered in the light of this. According to Pillay, the majority of nurses' training begins in the public sector and their knowledge is grounded on this experience. When sufficient experience is gained, they seek out better opportunities in the private sector and migrate to the more developed countries. This loss of experience from the public sector impacts negatively on the capacity to mentor new graduates, which in turn results in the young, professional, trained nurses seeking better opportunities with organizations where they can develop further. The net result of this is that the public sector is left with overworked, older staff who are on the verge of retirement.

Key words

Case-based method, Competency-based learning, Simulated patients, Clinical learning environment

Introduction

The nurse education and training landscape in South Africa has changed in different ways over the past century, with the result that education and training of nurses does not necessarily translate into an adequate supply of professional nurses for the health care service. Any shortage experienced in this professional cadre impacts negatively on access to health care and the quality of health care provided. As in other countries, the issues associated with nursing shortages are complex and dynamic and involve multiple stakeholders, including governments, employers, professional associations, unions and educators. Addressing these issues requires the full involvement and cooperation of all of these organizations. The supply

of nurses, their quality and competency, and their retention in jobs and in the profession, are dependent upon factors such as educational capacity, clinical training opportunities, entry to practice standards and support for new entrants in practice environments. The Provincial Government responded to this shortage by increasing the number of bursaries for student nurses entering the university and the nursing colleges. This increased number of students consequently required that the institutions providing nursing education review their teaching and learning strategies to ensure that the quality of education is of an optimal standard. One institution of higher learning in South Africa has responded to these challenges by identifying teaching and learning approaches and opportunities which strengthen and broaden the clinical teaching and learning environment for degree nursing students. It is hoped that these new approaches of teaching and learning will produce competent nurse graduates for the health sector in South Africa.

This article seeks to discuss the response to the challenges posed by the increase in numbers of nursing students in the degree programme by using innovative teaching strategies to enhance learning.

Facing the challenges: Case study of one institution of higher learning

Seven years after implementing new approaches to accommodate the increase in student numbers, the institution still faces challenges to effectively and efficiently meet the learning needs of the nursing students. What follows is a brief discussion of the day-to-day challenges and how the institution has responded to and copes with the increase in student numbers.

Challenge: Teaching large classes

The average number of new first-year nursing students is 300. These students are divided into smaller classes of 50 students and further subdivided into smaller groups of 5-6 learners per group. This strategy makes classes more manageable and effective for group facilitation. Learners from diverse backgrounds actively engage with one another and the benefits of group / teamwork can be experienced by learners from the first year of the four-year nursing programme.

Response: Innovations in methods of teaching

In order to cope with the large numbers, programme changes and adjustments to the curriculum had to be made as well as introduction of new teaching and learning strategies. Among these approaches were the integration of theory and practice by adopting the case-based method, introducing simulated patients, building capacity by appointing more clinical supervisors, as well as the training of preceptors to narrow the gap between institution and health care facilities and to function as mentors for newly qualified nurse graduates. These new strategies and approaches to facilitate learning for students were necessary for immediate action and implementation to cope with the greatly increased student intake.

DeSanto-Madeya [1] states that nurse educators are continually challenged to develop teaching strategies that enhance students' critical thinking, problem-solving, and decision-making skills. In order to attain these skills, changes need to take place in the teaching and learning environment. Simpson and Courtney [2] state that "Nurses must think critically to provide effective care whilst coping with the expansion in role associated with the complexities of current health care systems". Nurse educators play a pivotal role to assist student nurses to fulfill these expectations. A study done by Abu Hasheesh and colleagues [3] concluded that nursing is a practice-based profession and that over indulgence in teaching knowledge through teacher-centred methods may result in ineffective teaching effectiveness and low students' achievements. Nurses are faced daily with the changing healthcare environment due to patients who present with more acute and complex healthcare issues and needs. Rhodes and Curran [4] state that these changes created an atmosphere which requires the nurse to make sound clinical judgments about patient care, delivering high quality care and be accountable.

The classroom setting: Introduction of the case-based method

The case study approach is a teaching and learning strategy that stimulates ideas through complex problem analysis of actual or hypothetical situations and provides a means of applying theoretical principles in practice. The case study method thus makes it possible for students at all levels to make decisions about real-life situations in an analytical and systematic manner, in a controlled environment while risk is reduced. According to Garvey, O'Sullivan and Blake [5] case-based learning is a worthwhile approach in developing diagnostic skills and clinical judgment. Students assume responsibility for their own learning, and academics act as facilitators of their learning. Baumberger-Henry [6] states that using the case study approach enhances further development and use of critical thinking by defining problems through discussion of relevant data and issues, and verifying facts so that decisions can be made. Kunselman and Johnson [7] emphasize that 'Case studies promote active learning; the application of case studies helps students to understanding complex and complicated issues, as well as to parse descriptions of interrelated processes'.

The traditional method of lecturing students and transferring knowledge from teacher to learner (teacher-centred) at the nursing education institution gave way for the facilitation of small groups, where learners became self-directed and active in their own learning in the classroom as well as in the clinical setting (learner-centred). By making use of scenarios and cases which mimic real-life situations in a clinical environment, learners are able to safely engage with the fictional case and acquire problem-solving skills under the guidance of the facilitator, thus bringing the clinical environment into the classroom.

The clinical learning: Competency-based education

Competency assessment is always outcome-oriented; the goal is to evaluate performance for the effective application of knowledge and skill in the practice setting. Competency assessment techniques address psychomotor, cognitive and affective domains. Competencies can be generic to clinical practice in any setting, specific to a clinical specialty, basic or advanced [8]. Competency-based education has been found to be equally effective in both didactic and self-learning approaches [9, 10]. Alspach [11] speaks about competency-based education that is applicable both in practice and in educational settings. In addition, competency assessment is based on criterion-referenced evaluation methods, where the learner's performance is evaluated against a set of criteria provided to the learner so that both learner and assessor are clear on what performance is required. Alspach [11] concludes that competency-based education is learner-centred in that outcomes are specified and describe what the learner must do to demonstrate competency.

The competency-based model adopted for the four-year nursing degree programme at this institution is used for clinical teaching and learning wherein core clinical competencies form the main focus. The clinical competencies which cut across the four year levels include communication, assessment and care. These competencies facilitate the integration of knowledge, skills and attitudes/values, which is needed to function effectively in the clinical environment. The competency-based educational initiative is embedded within the institutional planning process. The assessments of competencies are directly linked with the goals of the learning experience and are also criterion-referenced. The assessment results are used in making critical decisions about strategies to improve student learning. For a student to be regarded as competent, he/she must demonstrate an understanding of what he/she is doing and why they are doing it (knowledge); an ability to perform (doing) a set of tasks; and an ability to integrate and connect the performance with their understanding, so that they learn from their actions and are able to adapt to changes and unforeseen circumstances. More senior students are expected to demonstrate a holistic view of situations when planning patient care and making informed clinical decisions.

Clinical supervisors form the basis of clinical practice and play an important role in clinical teaching and learning at the nursing education institution. To bridge the gap of theory and practice, they are involved in the classroom during the facilitation of contact sessions with students. Having involvement of clinical supervisors as facilitators helps the students to make the link between information from nursing science, basic sciences (anatomy, physiology, chemistry, physics, pharmacology), and clinical practice.

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In addition to classroom facilitation the clinical supervisors are responsible for the accompaniment and support of students at the clinical learning sites, as well as assisting students with visualization of a particular skill, viewing videos of the clinical skill or actual performance of the skill in the clinical skills laboratory or clinical learning environment. During guided practice, clinical supervisors give immediate feedback to students on the skill performed and also ensure that clinical learning opportunities are utilized as they provide teachable moments for the students. They facilitate simulated patients/student encounters, and complete a student progress report per placement area in consultation with the site supervisor.

Using the Simulated Patients. Simulated patients are used in the skills laboratories for clinical teaching as well as for clinical evaluations, during which they portray standardized patient encounters. Simulated patients are used in the skills laboratory to ensure that students are exposed to real-life encounters in a structured environment, and hence acquire foundational competence before being placed in the clinical facilities. These simulated patient encounters are used or practising clinical skills and standardizing student experiences during summative assessments or evaluations. The students learn the appropriate communication skills during the practice sessions; this enhances their confidence to function in the real clinical sites. The simulated patient encounters afford the students the opportunity to repeat clinical skills until they are comfortable and competent to perform them in the real clinical environment. They receive immediate feedback from the simulated patient, peers and clinical supervisor. At first-year level, for example, interpersonal skills development is being practiced during student-simulated patient encounters, and sometimes involves video recording of the encounter so that students can view themselves and reflect on the given situation, in an attempt to make positive adjustments to the student's behaviour.

It is important that the students perceive the simulated patient encounters as an opportunity to connect and make a difference in the patient's life, rather than just as a skill performance [12]. It is also important to plan for debriefing/ de-roleing sessions after the student-simulated patient encounter sessions. The person focuses on the emotions created by the experience during the debriefing, and is helped to deal with any incongruence experienced when assuming the role during this de-roleing session [12].

Using a Computer-simulated Patient/Mannequin. Specialised mannequins are able to simulate patient responses such as heart and lung sounds and verbal responses, providing an opportunity for students to practice their skills in a safe and controlled environment [13]. The computerised simulated patient can be pre-programmed to display pathologies according to the scenarios used for student assessments, especially with large numbers of students. Students are able to assess themselves and pre-test their knowledge before the actual assessment is conducted, since results become available immediately in the form of a computerized print-out.

Challenge: Inadequate number of clinical learning sites

The limited number of clinical learning sites to accommodate the large student numbers limits the total number of students that can be placed at any given time. This forced the educational institution to identify clinical sites beyond existing metropolitan boundaries, to more remote placements. This resulted in financial constraints for the institution in terms of transportation of students between the higher education institution and the clinical sites; costs associated with this transportation; time spent on travelling; and accommodation of students at residences linked to the clinical site for the period of the placement. A further issue here is with regard to placing junior students at these remote sites - they also need to take science modules (Human Biology, Chemistry, and Physics) offered by outside departments at faculties within the institution. As a result, only senior students can be placed at the remote sites.

Response: The increase in nursing student enrolment resulted in the need for identification and accreditation of more clinical learning sites by the South African Nursing Council (SANC). The process of accreditation takes at least 18 months or more from time of identification of the site until it is accredited. Until clinical learning sites are accredited by SANC, students may not be placed there. This process involves: (1) identification of appropriate sites; (2) entering into a Service

Level Agreement (SLA) between the institution and Provincial Government to align the institutional training programme with the health service's needs; (3) conducting a situational analysis of the identified clinical site; and (4) submission of documentation and a request to SANC, which is followed by a SANC visit to the clinical sites. Thereafter, a SANC report with recommendations follows.

Conclusion

The shortage of nurses is currently being addressed by many nursing education institutions. While the doors are open for learning to meet the demands of Government, there is a strong urge for parties to come together to relieve the pressure on the institutions to produce competent professional nurses for the country. Collaborative partnerships improve the spread and quality of learning accessibility, student numbers, expenditure, management and governance capacities, institutional identities and culture, and cooperation, and enhance productivity. The partnership among the stakeholders must be maintained and continuously monitored for its effectiveness in the nursing degree programme, and so that adjustments may be made to respond to policy changes in health care.

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