

Part 1: Contemporary issues in nursing

Leading article

Revisiting innovative approaches to teaching and learning in nursing programmes: Educators' experiences with the use of a case-based teaching approach at a nursing school

O. Adejumo*

e-mail: oadejumo@uwc.ac.za

L. Fakude*

e-mail: lfakude@uwc.ac.za

N. Linda*

e-mail: nlinda@uwc.ac.za

*School of Nursing

University of the Western Cape

Bellville, South Africa

Abstract

Innovative approaches to teaching and learning have been acclaimed by educators in health care related professions as being more suitable to teaching future professionals, and to engendering critical thinking, as well as the competencies that are relevant to the needs of the society. This article focuses on teachers' concerns about the implementation of the case-based method of teaching at a school of nursing in the Western Cape, South Africa. Teachers involved in this method of teaching for at least two years provided qualitative data through a series of focus group discussions (4 FGDs) organised according to the different year levels of the nursing programme of the School of Nursing, so as to be able to contextualise answers to the study questions. The FGDs were followed by a one-day consensus workshop for all educators involved in case-based teaching for a shared discussion that concentrated on finding solutions for the future. Concerns raised included issues about the facilitation role of the teacher; the role of the student; curriculum alignment; assessment methods; and the role of the environment in case-based teaching and learning settings. Recommended solutions were aligned to the identified concerns.

Keywords: case-based teaching approach, undergraduate nursing, challenges, nurse educators, shared discussions, environment of teaching

INTRODUCTION

The case-based learning (CBL) approach is an andragogical (adult teaching/learning) approach that examines contextualised questions which are based upon clinical or non-clinical ‘real-life’ problems. In CBL, a structured concept is presented in a standardised case format where each student exposed to the case has a clear understanding of the issues to be solved (Lunney 2008). CBL uses a guided inquiry method and provides more structure during small-group sessions. Hayward and Cairns (2001, 233) state that ‘the use of cases allows students to integrate and apply developing clinical and basic science knowledge and skills such as clinical reasoning, critical thinking, problem solving, and interpersonal ability to hypothetical or real case scenarios’.

Case-based teaching and learning approaches have been used for years and are reputed for providing an excellent environment for acquiring an understanding of professional and ethical issues, knowledge of contemporary issues, or the ability to understand solutions in a global and societal context (Prince and Felder 2006). However, several studies have been devoted to investigating the discomfort commonly associated with innovative approaches to teaching and learning with a view to providing solutions for assisting further developments and the implementation of creative teaching. In a study to investigate the role of discussion groups in a case-based environment, Flynn and Klein (2001) found that students were dissatisfied with the amount of time available to prepare for the cases, as well as for group discussions. In similar studies, concerns have been raised about assessment measures that could appropriately gauge the performance of individual students in groups while a CBL approach is being used.

The case-based approach was introduced and documented at a nursing school at the turn of the millennium in 2004. At the time of preparing this article, the case-based approach had graduated four cohorts of students until the end of 2012 by using mainly the case-based approach in the nursing modules (ie, excluding modules like Chemistry, Physics, Human Biology, and Pharmacology taught by colleagues in the Science Faculty). Educators from diverse backgrounds and with varying experience in teaching methodologies had been participating in the teaching–learning process at the School of Nursing. Most of the educators were educated and trained in the tradition of a content-based curriculum and were only keen to teach the way they had been taught. The decision to introduce innovative approaches to teaching and learning thus compelled educators, particularly those in the undergraduate programme teaching nursing modules, to make adjustments in their teaching approach, with no alternative but to teach in a CBL format. This process of adjustment that entailed learning a new way of teaching and learning was sometimes scrutinised by omnipresent managerial officers to ensure that compliance brought some uniqueness to the emotional climate and they verbalised concerns about the success of the case-based approach.

The current article documents the attempts made to describe some of the concerns raised by the educators and the solutions proffered for the successful implementation

of the case-based approach. As part of the measures to describe educators' concerns about the implementation of the case-based approach and to find solutions that the educators would consider acceptable, the following questions were raised:

1. What concerns do the teaching staff members of the School of Nursing have about the implementation of the case-based approach?
2. What solutions would the staff of the School of Nursing offer in relation to their concerns about achieving the objectives of training and educating nurses at the school?

CONCERNS DEFINED

For the purpose of the discussion, concerns were defined as: 'Problems that the educators experienced relating to the process of implementing the case-based teaching approach; or any other things that they felt might potentially hinder or were actually hindering the achievement of the education and training objectives in the nursing programme at the institution.'

METHOD

A participatory action research approach was adopted for this project, using a qualitative data gathering process in a participatory/empowerment evaluation tradition (Babbie, Mouton, Vorster and Prozesky 2006). In this approach:

1. The principal researcher (OA) played the role of a methodological consultant and facilitator of the process.
2. The participation was an educational process during which participants 'produce[d] action-oriented [sic] knowledge about their reality and reach[ed] consensus about action to be taken' (Babbie et al 2006, 358).
3. A learning process evolved while the facilitator (researcher) and the participants were becoming increasingly knowledgeable about the issue being explored and more efficient and autonomous while the project was maturing.

TARGET POPULATION, PARTICIPANTS AND SAMPLING

All the educators involved for not less than a year in the implementation of the undergraduate curriculum at the School of Nursing were targeted to participate in the discussion. There were a total of 78 educators and clinical instructors involved in case-based teaching.

To participate in the discussion, the total number of staff members involved in teaching case-based modules was enlisted. All the eligible educators involved in case-based teaching participated with the exception of educators who were unable

to attend the discussion sessions either due to other engagements, or failure to reschedule with the principal investigator.

In order to facilitate an uninhibited expression of concerns among the participants, the head of the school and her deputy were excluded from participating in the discussion due to their positions of authority, as well as to enable the members of staff to freely express their experiences and concerns related to the case-based approach. Staff members who were either not involved with the case-based teaching or had not experienced case-based teaching for at least one full year, were also excluded from participating in the study.

DATA COLLECTION METHOD

A series of focus group discussions (4 FGDs) were held with the implementing staff for different year levels of the nursing programme at the school in order to contextualise responses to the study questions. These FGDs lasted for about 90 minutes each and were conducted over a period of one month on different days for the convenience of the groups. The FGDs for all the educators involved in the case-based teaching were followed by a one-day consensus workshop for the purpose of sharing points of view, concentrating on solutions, and mapping the way forward. The educators who participated in the workshop represented all levels of the four-year curriculum and comprised academics and clinical supervisors.

During the discussions, the participants identified concerns, prioritised the concerns, and developed solutions for managing the concerns that they had about implementing case-based teaching. According to Ingham and Gilbert (1992), the workshop method is most suitable since it minimises the time required for one-on-one interviews and also allows for explaining and exploring difficult concepts. Unlike focus groups, which focus on probing retrospective information, workshops are particularly suited for probing prospective information that may result in learning and development (Ingham and Gilbert 1992, 41). Apart from the consensus workshop being an ideal method for the reasons provided above, it further provided an opportunity for generating input from a variety of participants where they all identified similar problems and solutions collectively. The transparency that the consensus workshop brought was powerful in the sense that the participants not only obtained the required information and were able to share ideas but their understanding of one another actually also grew. Setting the context was the initial important step during which the participants were equipped to understand the breadth of the topic under discussion. During this stage, a focus question was displayed for all participants to see and to consider. The brainstorming comfortably allowed this activity to occur in layers, from silent individual brainstorming to participants sharing their favourite ideas and experiences, and eventually sharing the diversity of responses to provide different answers to and perspectives on the questions.

The methodology used was expected to be an empowering process that enabled participants to develop solutions and strategies from the discussions of their own

experience during the implementation of the case-based approach. It was expected that the participants would own the decisions arising from the activities and that they would be willing to adopt the decisions reached as the way forward for the implementation of the school's nursing programme.

The FGDs and the consensus workshop answered the following questions that served as triggers for the discussion:

1. What are the concerns arising from your experiences with the implementation of the case-based teaching approach at the School of Nursing?
2. What are your explanations for these concerns?
3. What solutions will you suggest to address the concerns from your experiences in relation to case-based teaching and learning?

ETHICAL CONSIDERATIONS

Permission for this project was granted by the ethics committee of the institution. All participants were informed about the details of the study before the commencement of data gathering; they were assured that they were free to agree or to disagree to participate in the study; and that their refusal would in no way jeopardise their interests as a teacher at the school. The participants were also free to withdraw from participation at any stage without any form of penalty and this would not in any way be used against them. The objectives of the project and the reason for the involvement of the participants were communicated in writing and they individually signed the consent form to participate.

The procedure for data gathering was explained with detailed information and agreement on the rules of engagement at the beginning of the discussion. Participants were aware and gave their permission for the sessions to be audio recorded. They were assured that those recordings would only be retrieved for data analysis purposes; all recordings would be erased once the project was concluded; and the recordings were never going to be used for any other purpose apart from the purpose of the project. The participants were also given an undertaking that they would have access to the outcome of the project as soon as it was concluded, and that the outcome was expected to be used for improving the quality of education and training at the school.

DATA ANALYSIS

Data analysis was done deductively by transcribing raw data from the audio recorded discussions and organised sequentially according to the workshop objectives. Data from the flip charts was also incorporated into the transcribed data. Thereafter, those transcripts were read, re-read, and summarised into themes. Tesch's method of content analysis was used to organise the data (Creswell 2009, 183). Two of the researchers independently coded the transcribed data, which was later compared for

agreement. The coded data culminated in a list of broad topics, and topics with a similar meaning were clustered together and arranged as major topics to reduce the extent of the topic list. The information from the transcribed and analysed discussions was presented at the consensus workshop for validation and solutions were provided on that basis. Data analysis during a consensus workshop was instantaneous, since consensus needed to be reached about the concepts before the participants left the workshop. A draft document with suggested solutions emerged, which was presented to the participants for verification and further refinement.

FINDINGS

According to the participants' responses, their concerns from the experiences were organised into the following main categories:

- The facilitation role of the teacher in the case-based approach;
- The role of the student in the case-based approach;
- Issues about the curriculum alignment;
- Assessment methods in the case-based approach; and
- The role of the context/environment in the case-based teaching and learning approach.

The facilitation role of the teacher

The following six sub-categories were identified for this main category: (1) lack of clarity about the facilitator's role; (2) lack of guidance; (3) lack of expertise; (4) lack of capacity for the facilitators; (5) lack of consistency in implementing the case-based approach among the facilitators; as well as (6) lack of capacity for those who were conducting peer evaluation. The sub-categories with similar meaning were combined to formulate patterns (Figure 1).

Patterns

The following patterns emerged from the six identified sub-categories:

- (a) Lack of clarity about the facilitation role due to a lack of structure and guidelines; and
- (b) Lack of consistency during the implementation and evaluation of the teaching strategy.

The two patterns were then combined to identify the underlying meaning of the expressed concerns, and the following theme emerged from the two patterns: Lack of consistency during the facilitation process.

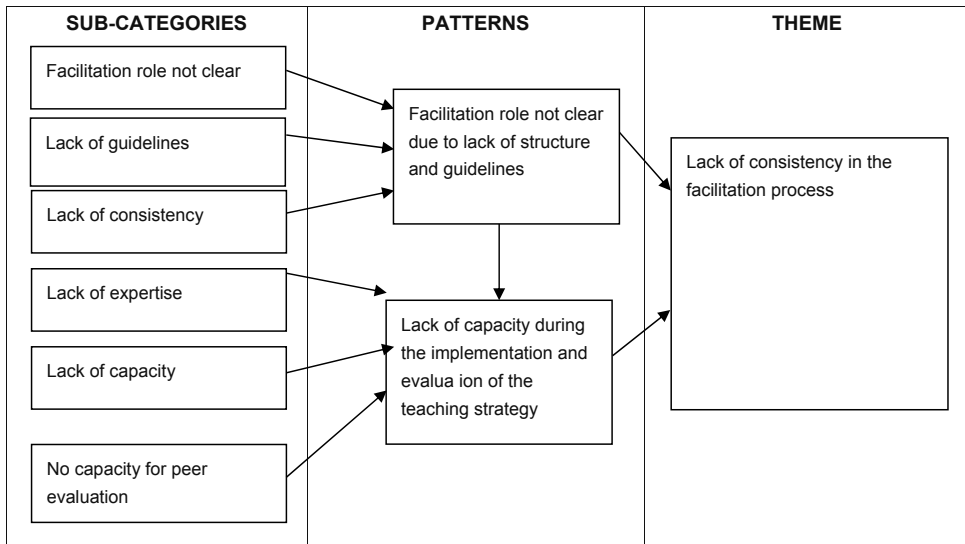


Figure 1: Experiences of the facilitation role during a case-based approach

Participants expressed the view that learners influenced the teaching and learning environment

Sub-categories identified under this broad topic

Some learners experienced problems with English as a language of instruction; communication was compromised during class sessions; and the group dynamics were dysfunctional. Lack of motivation, lack of preparation for class, as well as inadequate information to assist students to prepare for class were also identified (Figure 2).

Patterns

The following patterns were formulated by combining sub-categories with a similar meaning:

- (a) Communication problem influences preparation for class;
- (b) Dysfunctional group dynamics affect learner motivation; and
- (c) Inadequate information may influence the learners' preparedness for the case-based class session.

The three patterns were then combined to identify the underlying meaning, and the following theme emerged from the three patterns: Lack of motivation and a lack of preparedness of students.

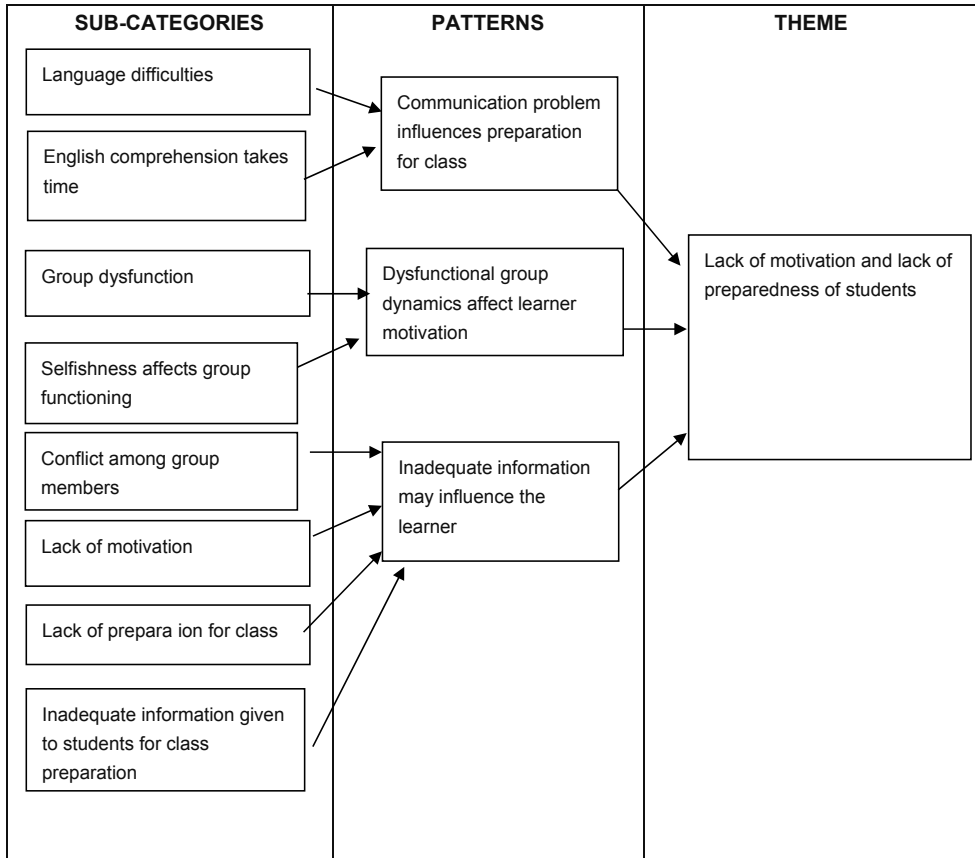


Figure 2: Issues in relation to curriculum alignment during a case-based approach

Participants expressed the view that there was a lack of alignment between the case-based approach and the curriculum

Sub-categories identified under this broad topic

There was a lack of guidelines for the construction of the cases and it was reported that too many cases were used. Educators also expressed concerns about the lack of coherence between the cases and reported a lack of structure in the cases constructed. There were also concerns about inconsistencies in balancing the process of learning with the content. Some educators were also concerned about possible gaps that could exist between theory and practice (Figure 3).

Patterns

The following patterns were formulated by combining sub-categories with a similar meaning:

- (a) There are no guidelines for the construction and development of the case;
- (b) The absence of guidelines affects the quality of the case constructed; and
- (c) There is a lack of alignment with the curriculum.

The three patterns were then combined to identify the underlying meaning, and the following theme emerged from the three patterns: Lack of standards and guidelines for the integration of the case-based method and the curriculum affects the quality of the cases constructed, resulting in poor alignment of the cases with the curriculum.

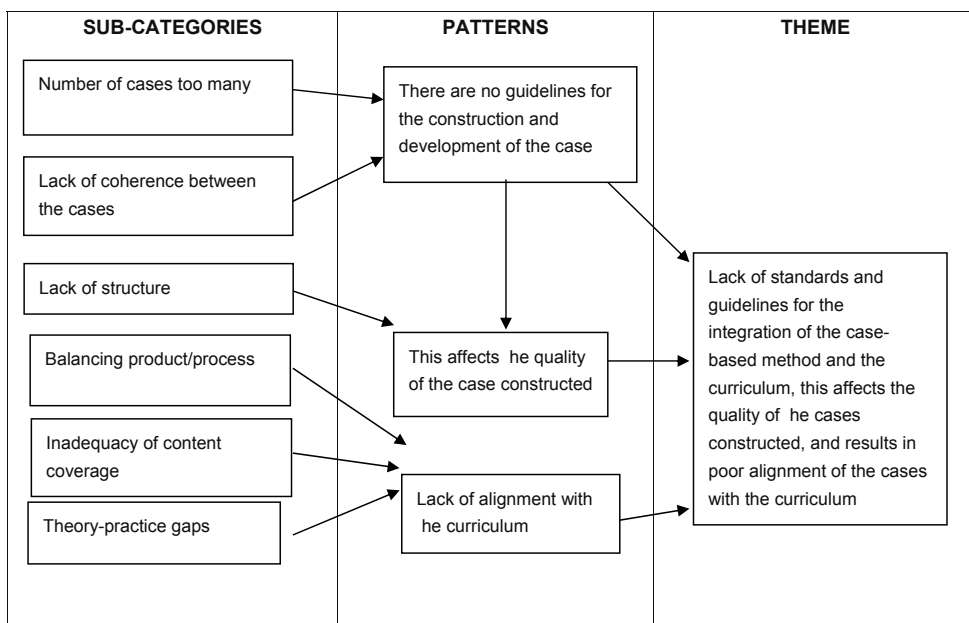


Figure 3: Experiences with the assessment methods during a case-based approach

Participants expressed the view that there were problems with the assessment methods during a case-based approach

Sub-categories identified under this broad topic

These include a lack of focus on critical thinking during assessment, and a lack of balance between teaching and assessment. Educators also expressed concerns about the number of assessments, as well as about inconsistencies in the grading of assessments.

Patterns

The following patterns were formulated by combining sub-categories with a similar meaning:

- (a) There is incongruence between teaching and assessment; and
- (b) There are problems with the standards of assessment. There are no guidelines for the construction and development of the case.

The two patterns were then combined to identify the underlying meaning, and the following theme emerged from the two patterns: A lack of congruence between teaching and assessment affects the assessment standards.

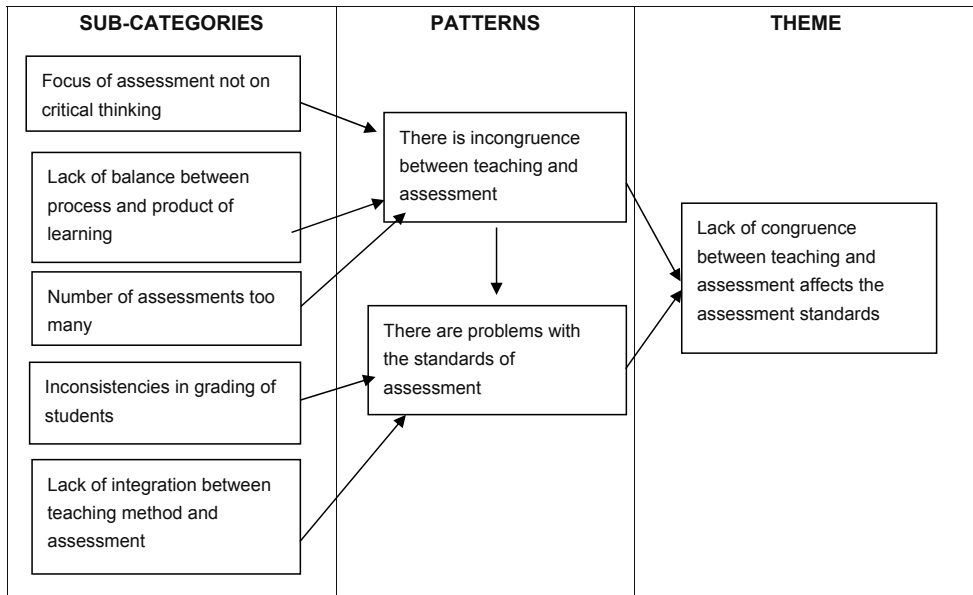


Figure 4: Experiences with the context or environment of case-based teaching and learning

Participants expressed the view that there were problems with the environment where the case-based approach is implemented (Figure 4)

Sub-categories identified under this broad topic

The problems identified ranged from a lack of adequate physical space and inadequate class size to inadequate learning resources, for example library books. Some participants felt that there was a lack of management support, and that bureaucracy stifled lecturer creativity (Figure 5).

Patterns

The following patterns were formulated by combining sub-categories with a similar meaning:

- (a) Physical space not conducive to case-based teaching and learning; and
- (b) Lack of resources affects the effectiveness of the case-based approach.

The two patterns were then combined to identify the underlying meaning, and the following theme emerged from the two patterns: The implementation of the case-based teaching approach is negatively influenced by the non-conductive teaching environment, as well as the lack of resources.

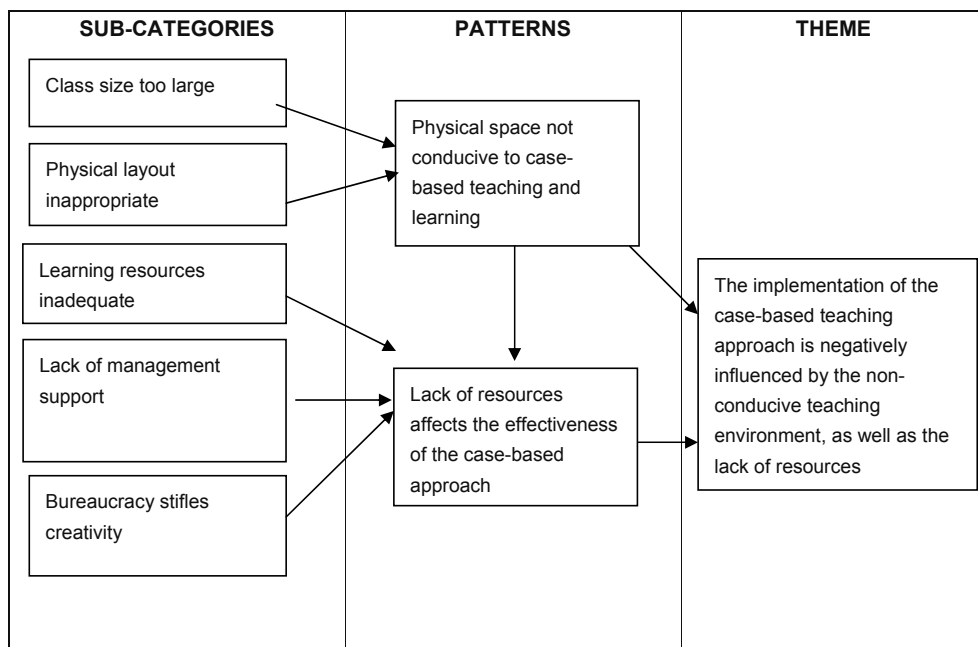


Figure 5: The context (teaching and learning environment)

RECOMMENDED SOLUTIONS

The solutions recommended by the participants also followed the identified areas of concern as described under the following headings.

Development of guidelines

Participants recommended the need to develop institutional policy that flagged standards and guidelines for implementation of case-based teaching approaches. Guidelines should also aim at aligning the curriculum content with case-based teaching approaches. The facilitator’s guide is of primary importance and should provide direction for the way in which the facilitation of students’ learning and assessment should be done. It is also vitally important to evaluate the process of the case-based teaching approach at regular intervals. Standards and guidelines for the

implementation of a case-based teaching approach may point out and give direction to the development of a case study. However, specific guidelines for the construction of a case study should receive particular attention.

Host capacity-building workshops about the implementation of the case-based approach

Faculty staff members can invite experts on case-based teaching approaches to conduct workshops about the development of standards and guidelines, implementation of case-based teaching approaches, facilitation of learning (process and product), as well as assessments. The quality of a case study directly influences the process and product of learning. Therefore, clear guidelines for the development and implementation of case studies can provide solutions to poor alignment of the curriculum during the case-based teaching approach. To achieve this recommendation, faculty staff members can take time off from the normal routine to work on developing cases.

Provide sufficient information for students about role expectations

Students should be provided with information about class preparation and strategies to overcome language difficulties. Case-based teaching approaches should be thoroughly explained to students, thus only once they understand the intent of the approach will they be expected to display a positive attitude and perform better. Facilitators should promote mutual participation in case-based activities through openness to students. This can be achieved by allowing facilitators to attend capacity-building workshops and staff development seminars about promoting communication with students.

Create a balance between process and product of learning

Congruence between assessment methods and the case-based teaching approach should promote compatible integration. Assessments should promote the use of applied questions for both formative and summative assessments, namely, tests, assignments and examinations. Questions based on short scenarios help to maintain congruence between assessment and a case-based teaching approach. The primary focus of assessments should not be on content coverage only, but should also include assessing certain aspects of learning like critical thinking, clinical judgment, and so on. Therefore, the number of assessments should be structured in such a manner that there is a balance between assessing both the process and product of learning. Grading of students should be done with precision by ensuring appropriate allocation of marks based on group versus individual performance and process versus product of learning.

Create a conducive teaching environment

Physical space that is not conducive to case-based teaching and learning, as well as a lack of resources, affects the effectiveness of the case-based approach. Teaching

in small groups fits squarely with the case-based teaching approach and a classroom with flat seating is preferential to a theatre classroom with descending seats. This arrangement promotes facilitators' movement during the process of learning in class. Active participation should be promoted all the time by raising students' awareness about the importance of face-to-face, effective discussion/communication and purposeful activities. Alternative small group learning activities include brainstorming, role playing, and evaluation discussions (Newble and Cannon 1989).

DISCUSSION AND CONCLUSION

Proponents of case-based teaching and learning will always reiterate that when used by skilled teachers, this method enables learners to develop skills in analytical thinking and reflective judgement by reading and discussing complex, real-life scenarios. Such an innovative teaching-learning method prepares learners for coping with the complexity of real-life situations (Lee et al 2009, 179). While the list of concerns generated from the discussions might have appeared lengthy and worrisome, these concerns may be due to discomfort arising from adopting new methods that teachers themselves are ill-prepared to use, while also dealing with learners who have had different exposures to traditional methods of learning during their previous educational experiences. In all forms of change in an organisation, more so in an educational setting of this nature, the perceptions of stakeholders, the lack of a holistic approach, the absence of follow-up or support, and even the process of change itself may all present barriers to achieving effective change (Credaro 2006).

The majority of the solutions offered by the participants were in relation to the role of the educators and how their skills in teaching within the modern-day education and training frameworks for the health profession could be significantly improved. There were some words of advice, however, for the managers of the schools about the lines of communication, and developing clear guidelines and policies for evaluation. Aspects of the supply and management of resources also fall squarely within the responsibilities of the school's management. It is expected that managers and leaders in health profession education will take note of the suggestions that are provided in order to facilitate the implementation of such an innovative teaching and learning approach.

It is expected that all the people concerned will continue to engage and intensify efforts to find solutions to the challenges that they may be experiencing with the use of innovative methods of teaching at the School of Nursing. All stakeholders must continue to be mindful of potential problem areas and the prospects of being able to deal with such issues, since they may arise from the experience of the faculty that has voluntarily offered its perspectives on the implementation of the curriculum at the school. It is worth mentioning, however, that during the research discussions the participants agreed that going back to the traditional way of teaching was no longer an option.

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