RESEARCH ARTICLE

USING STUDENT FEEDBACK TO ENHANCE TEACHING STRATEGIES: A CASE STUDY IN NURSING

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ARTICLE INFO	ABSTRACT
	Background: Student feedback about the effectiveness of teaching strategies that are aligned within the curriculum can be an effective approach to help improve the quality of teaching material. **Objectives:** the purpose of this paper reports on a case study that explored how teaching and learning can be enhanced through engagement with student feedback. **Design:** Qualitative research methodology used, and data were collected in the form of open-ended questionnaire for each participant. **Settings:** The study was conducted in the College of Nursing in Saudi Arabia. **Participants:** 90female nursing students enrolled in the third year Obstetrics and Gynecology nursing course were participate in the study. **Methods:** Open ended questions given to the participants at the end of the course study. **Findings:** The findings showed that most of the students were highly appreciative of what they believed to have been significant effort made to improve the course teaching methods. **Conclusions:** The research suggests that students recognize the values of different teaching approaches and specifically the use of video. The development and implementation of an assessment rubric was particularly valued as a way of enhancing objectively and transparency.

INTRODUCTION

This paper reports on a case study where interventions had been made into the curriculum that were based on evidence from the pedagogical literature aimed at enhancing learning through improving the efficiency of teaching. Students were then asked to provide their feedback on the experience as a way of closing the loop. Using an action research approach for continuous development of the Undergraduate Obstetrics and Gynecology nursing course. The adoption of the new approaches of teaching came as a result of previous student recommendations following feedback received in 2015. As a result, a series of videos were incorporated into different areas of teaching, including taught lessons and within the lab. The clinical training in the lab was held after a one hour break after the theory was presented within the lecture as it was also hoped that the almost immediate application would be beneficial. In addition, to assist with assessment a rubric[1] was used for the first time in the hospital training evaluation. The purpose of this study is to evaluate the effectiveness of the new strategies and to help educators in academia to understand the importance of student's feedback as a way of enhancing the quality of teaching and learning.

The feedback received from students to staff regarding the teaching process of a course is increasingly a major concern to those within higher education (Chan, *et al* 2017). As a consequence of the enhanced student voice in higher education, universities are increasingly attaching value to the impact of feed back as a way of enhancing teaching and learning (Chan, *et al* 2017). In nursing the input of student opinion is a significant element of the overall evaluation of a nursing program. This feedback often concentrates in particular on student evaluations of teaching (SET). This can have particular ramifications on individual teachers as well as on broader programme development. In health studies the results from these evaluations might be used for taking decisions that have an effect on a nurse teacher's future, such as through promotion or the renewal of a contract.(Bush, *et al* 2017). In addition, student scores and comments bring feedback directly to the educator regarding the parts of a course and training that might require improvement (Sood and Singh, 2014). Given the increased importance of student evaluation, a key element of this process is selecting the correct assessment tool through which to gain the most valuable information. It has been argued that combining quantitative and qualitative information is the most effective approach to be able to evaluate teaching effectiveness, course organization and the delivery of content (Bush, *et al* 2017).

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[1]A rubric is defined as an assessment tool that lays out the set standards and criteria to assess a performance, assignment or behaviour (Renjith, et al 2015, 423)

However, the evidence also emphasizes the particular value of qualitative feedback within medical and health science (Nair and Mertova, 2014). Despite the value offered by student feedback in aiding the enhancement of teaching quality, it is not a regular feature utilized in health science in most universities (Sood and Singh, 2014). This previous lack of engagement with student feedback may in part result from concern that student evaluations given significant weight might interfere with and cause an invasion of academic freedom(Chan, *et al* 2017).Concerns have been expressed about the use of student feedback as a method of assessing faculty performance and in decisions made by promotion and recruitment committees (Soodand Singh, 2014).On the other hand, student feedback can provide rich data to help educators gain insight into how they are delivering a course; which parts of the teaching went well, and which could be adapted; and thus, propose suggestions to enhance the course content and methods and student's clinical performance(Chan, *et al* 2017).In order to make effective use of the feedback it is important that educators take student evaluations positively and trust them as a method through which to gain useful insights. To enable this to occur the method of feedback collection and reporting is crucial. If not, there is a danger that the feedback is seen to highlight and report negative statements given by the students that might be taken as personal and subsequently be given greater weighting (Al-Haqwi, *et al* 2012). Achieving open, honest and constructive feedback that can develop a programme is therefore the aim, although not always easy to achieve.

In Saudi Arabia student feedback is collected through standardised evaluation forms which are provided by the national commission of Academic Assessment and Accreditation. Student feedback has become one of the main elements in national and institutional quality assurance frameworks in higher education to measure the student experience (Nair and Mertova, 2014)and this is the case in Saudi Arabia. This approach has developed following a recommendation of the value of using student evaluation results to assist in reviewing course quality and viability and build up strategies for improvements (Chan, *et al* 2017). There are however important cultural aspects that may influence how students in different settings view the provision of feedback. In the Saudi community it has a special context as a consequence of student-teacher interactions and in particular respect for elders and this can become greater as the age of the teacher increases. As a consequence there may be a difference in responses gained. This behavior alone may prevent free expression of thoughts and therefore be an obstacle to an effective feedback structure (Nair and Mertova, 2014). Although this is challenging, the quality assurance system in Saudi Arabia has acknowledged this and the evaluation process has been designed to attempt to reduce the influence that may occur as a consequence. The process therefore seeks to collect student feedback that emphasizes improvement of the learning process, with many academics seeking feedback to enhance their teaching as well, without negatively affecting either student or teachers. This technique is applied through a web application, UDQ uest, which is used to conduct questionnaire-based surveys. The traditional classroom in nursing education has been very much based upon the delivery of information with an emphasis on the student taking notes rather than listening and reflecting on the instruction and discussing practice within the teaching session (Young and Seibenhener, 2017).

This has begun to change as many nurse educators have realized that with the use of new technology there are opportunities to develop teaching and learning in new ways to meet the diverse student nurse needs in the classroom (National League for Nursing, 2015). According to Lange and Purnell, (2011), case studies, role-playing, and simulation scenarios are being utilized as ways of enhancing nurse education. This is potentially important because of the different needs and approaches learners adopt. As Alkhasawneh (2013,P.548) stated, "most nursing students can learn effectively as long as the instructor provides different learning activities (Visual, Auditory, Read/ Write, and Kinesthetic)". Providing a variety of teaching methods potentially allows greater engagement for more students, allowing those that might have been struggling to understand the subject material of the course to use an alternative approach which allows new understanding to be gained. Teachers who are able to modify their traditional lecture and introduce new methods of teaching that match students' preferences are likely to enhance the learning experience of a greater number of their learners (Alkhasawneh 2013; Asiry, 2016).

Modern education is changing rapidly, leading to traditional approaches to the design and delivery of learning interventions to be challenged. New approaches that offer potentially more opportunity to meet both the needs as well as the expectations of today's learners are appearing. There is hope therefore to provide new educational experiences using new pedagogies, and innovative use of technology, which can improve learning and subsequently nursing practice (Conole, 2012).One strategy for example that has been identified to help meet the needs of the individual learner is the use of video in classroom and laboratory teaching. It has been statistically proven that using video in teaching has been very effective and facilitated learning (McAllister and Mitchell 2002;Reisslein, *et al.*, 2005). Action research is a combined activity among professionals investigating for an effective way to solve daily problems practiced in teaching or seeking for improving student success by improving teaching and learning strategies (Ferrance, 2000). The process of action research *"assists educators in assessing needs, documenting the steps of inquiry, analyzing data, and making informed decisions that can lead to desired outcomes"*. (Ferrance, 2000). It is particularly important to review student feedback and use the information gathered to help formulate action research plans and monitor impacts of the changes applied to confirm that these have been effective in enhancing teaching and learning, seeking to capture both expected and unexpected outcomes (Nair and Mertova, 2014).This research presents a case study of how student feedback has beenutilised to prepare action research plans to improve teaching and review the implementation of videos and the use of an assessment rubric in to nursing education in one institution in Saudi Arabia and in particular the teaching of Obstetrics and Gynecology.

MATERIALS AND METHODS

Aim of the study

Design: This research study was conducted using an open ended questionnaire to explore students' perspectives on the new teaching strategies being deployed within the teaching of Obstetrics and Gynecology nursing. As this study was exploratory in nature and wished to gain perspectives from the

students, it was felt that the use of a questionnaire based on open ended question would allow for opinions to be gathered and was therefore designed to gather qualitative information (Baker *et al*., 2012).

Settings: The study was conducted in the female section of the College of Nursing at one University in the Eastern Provence in Kingdom of Saudi Arabia. It was based on one single case study (Creswell, 2012). According to Anthony and Jack (2009, P. 1171), *"Case study is becoming entrenched in the nursing research lexicon as a well-accepted methodology for studying phenomena in health and social care"*. The case study approach has evolved significantly in the past half century (Harrison et at, 2017) and provides an opportunity to explore particular aspects of practice in depth within a particular defined context. The key is the focus on the subject under study, allowing for an analysis of what is observed and the data as being based within a defined area, in this case a higher education institution and in one specific area and set of students all sharing a similar experience.

Subjects: All current undergraduate female nursing students (91students) enrolled in the third year Obstetrics and Gynecology nursing course were approached to participate.

Ethical considerations: Ethical approval was obtained from the Deanship of Scientific Research/the Institutional Review Board at the University. Ethical principles were adhered to in the study with participants able to withdraw at any stage and all completed consent forms.

Data collection: This study was conducted at the end of the second semester of the academic year 2015-2016, involving only third year students who it was believed had been exposed to the different teaching approaches and therefore in a position to provide effective feedback. A hard copy of the open-ended questionnaire was given to 91students after they finished their exams and got their marks. This was returned to the research assistant after completion, the research assistant was not part of the teaching team, this is because it is believed that this might reduce the students influence. The questions requested that the students provide their views on the following themes: course organisation, lab training time, use of video during lectures, using a rubric in clinical assessment and any future suggestion for improvement (Appendix A).

Data analysis: The data was analysed using a thematic approach as described by Noland and Carmack (2016). In qualitative content analysis, data are presented in words and themes, which makes it possible to draw some interpretation of the results (Polit and Beck, 2006).

RESULTS

Almost all students (98%) answered the questionnaire given to them. The findings showed that most of the students were highly appreciative of what they believed to have been significant effort made to improve the course teaching methods, based on previous student feedback. A set of themes within the content were generated according to the questions asked.

What did you find the most helpful aspects of the obgyn course?

Enjoyable and a new experience: Most of the students indicated that they were happy undertaking the course. They

also noted that Obstetrics and Gynaecology was a new subject area for most of them. It was the first time that they had encountered subject material related to maternal and child health. It was interesting to note that theyreported enjoying the practical parts of the course more than the theoretical aspects:

"Clinical rotations and skill lab is more useful for me"

However, they mentioned that adding video during the theoretical lecture based material added a special flavour to the course, as can be seen in the following response:

"The instructor were doing very well and perfect all of them were good in the clinical practice, also the videos added a fun in the lecture"

Great and organized: Good course organization can assist learners as they undertake the challenge of learning new material. Most of the participants agreed that the course was run in a very organised way and they especially felt that time was used effectively for clinical training. As they stated:

"all course content were great and organized, which helped us to keep on track"

"the organisation of the course with the plan by time in the clinical training made our practice expectation clear and easy"

What benefits did you gain in receiving the lab training immediatlely after the theory? (lectures)?

Increase confidence: Regarding the benefits of having the training in the lab immediately after the theory (lectures), the student responses were divided into two categories. The first category were those students who were happy to be able to apply the training in the lab immediately after the theory and stressed the importance of continuing to apply the knowledge going forward into the following year. They stated that this approach was very useful to enable them to apply what had been presented in the theory from the lectures. According to the students it helps in being able to memorize the knowledge in the theory, increased confidence, confirmed what was in the theory and helped in understanding the information that had been presented. The following comments are examples of students' responses:

"It keeps the knowledge in my mind and helps me to memorising it easily."

"The practice helped us in facilitating the understanding from the lecture."

"Able to perform the procedures and chance to practice more than once."

Crowded and unorganized: The second category were the students unhappy about using the training in the lab directly after the theory had been taught. Although this was only a small number of the 91 students, they argued that the timing was very tight and therefore provided limited opportunity to consolidate the learning. In addition, they argued that the teaching was fast in the clinical session and that the number of students in one practical area was high and crowded and therefore negatively impacted upon their ability to learn:

"it was fast and a lot of student in same clinical placement"

So whilst the teaching was generally received very positively there were negative comments.

Painful experience: In addition to the above, a few of students found this course "the most painful" one of their life. It was perceived to have been stressful because of the amount of work that needed to be completed and that as a result they felt that they had limited opportunity to reflect:

"The worst experience ever. A lot of work on the same day and long assessment"

What is your impression of using video as part of teaching material?

The majority of students found using video a very useful method to support their learning experience because it added motivation:

Useful and taste deferent

"Good and it had great benefit. It motivates me during the lecture to see what is next."

Video was also seen as beneficial because:

"It emphasizes the idea and better understanding and enjoyable."

And because:

"It is good method of teaching and give me chance to use analytical thinking. The lecture has special sense of taste"

Overall the use of video was seen as positive because:

"It was attractive and have an actual delivery process. It was good for teaching, because it shows actual process what lectures cannot do. I felt that video enhanced the learning and understanding for us"

Tell me about your experience on using a rubric for clinical assessmeny?

Clear expectation for both student and teacher: The majority of students found using a rubric in clinical assessment was very useful and argued that using a similar rubric in other courses would be a useful way to reduce subjectivity. It appears that they were happy using a rubric particularly in the clinical areas as they felt that it helped them to know exactly how they were going to be evaluated:

"Good to know what you will be evaluated on, it is clearly defined and marked"

And that a:

"rubric is good guide for both me and the instructor."

Transparent and less stress: The learners felt that it helped to support consistency and was therefore supporting a fairer response and feedback:

"Good and fair to follow the rubric, each instructor follow the same item for evaluation"

It was also seen of benefit because it supported learning and did not add to the anxiety that can be caused by assessment. Instead it was seen to be:

"Very useful and comfortable"

Please give any suggestion which might improve the course teaching? (theoritical and / or clinical)?

The majority of the student replies to this question related to a request to decrease the amount of theory given to them through a reduction in the number of lectures:

"Course is very good and interesting but the content of theory was very heavy"

"Just reduce the lecture and content, all things was perfect"

DISCUSSION

Recognition of the value of effective learning design has increased significantly in the last few years (Nguyen *et al.*, 2017). It aims to improve the theoretical understanding of educational performance, using technology to enhance learning, making educational designs clear, up to date and adaptable. Conole (2012, P.121) describes *learning design* as "a methodology for enabling teachers/designers to make more informed decisions in how they go about designing learning activities and interventions, which is pedagogically informed and makes effective use of appropriate resources and technologies". Following very much the idea suggested by Biggs (2003) with constructive alignment, the focus of the learning design is not on the content that will be delivered but on what students do as part of their learning to achieve the outcomes required (Nguyen *et al.*, 2017). The implication of well organised learning design was reflected in the findings of this current case study, in which the research data shows that the students acknowledged the effort and became more interactive in the learning process.

As modern society becomes more complex in terms of technological tools and societal systems available, there is a need to enable effective communication and enable new skills to be developed and practiced. In our students these relate to critical thinking skills, problem solving and the ability to interact, collaborate and work in a team (Conole, 2012). One way that these may be supported is through the effective use of technology in teaching which has been shown to motivate students and increase academic achievement (Wankel *et al.*, 2013). Patient scenarios shown through video might therefore beuseful to augment discussion so that a student can observe a patient interaction through the presentation of case studies (Walker *et al.*, 2016).Videos are one of the most frequently used media in classroom settings (Brame, 2016).In this case study the research participants emphasized how using video in the classroom provided them with greater clarity over the material and was more helpful than receiving the theory alone. In addition, most of the respondents indicated that the lecture became more interesting and helped them to be more involved in the learning because it encouraged analytical thinking and helped to connect the theory with what they saw in the video patient scenarios, reflecting previous research (Gia Lenn *et al.*, 2015). By providing the videos online, so that they could be viewed at any time, was also seen as a benefit. The use of videos that can be watched outside the lecture or away from

clinic has been shown to be of benefit, presenting material in an attractive and consistent manner, which may also enhance student involvement, and so improve future learning achievement (Zhang *et al*., 2006).The students in this research were able to watch the video teaching materials at any time because all lecture content was additionally made available through an e-learning platform which students had access.

Most of the participants gave positive feedback regarding the use of video in lectures. They stated that it was *"enjoyable "* whilst others stated it was *"motivating"* and others that it emphasized their understanding. These findings are in line with other pieces of research that have tested the views of students toward learning through video podcasts. These have stated that students' response and emotional feelings were mainly positive and the general comments suggest that video podcasts add enjoyment to the learning environment (Dupagne *et al*., 2009)as well as increasing satisfaction (Zhang *et al*, 2006). Other studies have shown that students were motivated by using video podcasts (Brame, 2016).

Another aspect that was introduced was the use of an assessment rubric in students teaching and assessment. Bennett (2016, P. 50), stated that *"Assessment rubrics are being promoted and introduced into tertiary teaching practices on the grounds that they are an efficient and reliable tool to evaluate student performance effectively and promote student learning".*

Isaacson and Stacy,(2009) have noted that there are some nursing studies that mention the use of rubrics in their studies, mainlyin clinical assessment. However, even for experienced faculty clinical assessment remains a challenge. Clinical course objectives are interpreted differently by both faculty and students, and many remain concerned that there is significant subjectivity within any evaluation (Isaacson and Stacy, 2009). Rubrics may provide some response to these concerns. They can facilitate the grading experience for faculty and students and the evidence from this case study suggests that they were seen as achieving this. For faculty the use of a rubric might also reduce grading time while increasing the quality and quantity of instructor feedback. Using a rubric, students can benefit from developing a more realistic approach to self-evaluation and gain greater understanding of what the focus for their learning is. According to Reddy and Andrade (2010), both graduate and undergraduate students appreciate the value of rubrics because they explain the objectives for their work, allow them to monitor their achievements and grading is felt to be fairer and transparent. This finding resonated within our data. Participants said that using rubrics helped motivate them and resulted in them receiving good grades and feeling less concerned about who their evaluators were.

Conclusion

This study explored three important aspects related to the higher education teaching of nursing students. The first is the importance for nurse educators of knowing how to utilize student feedback for evaluating and improving teaching and learning methods by using action research methodology. The second is that students have a variation of learning style preferences. By using a variety of teaching methods and using technology such as video scenarios in teaching it might help in providing the teaching content in a way that is acknowledged by more students because it fits their preferences more closely.

The third is that using a rubric can be a very effective method in clinical evaluation as students have a clearer idea of what to expect from the evaluators and what is expected of them.

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