Engaging Postgraduate Students Undertaking Clinical Pharmacology Using GoSoapBox for Problem-Based Learning

Engaging student cohorts in the classroom using teacher-centered learning approaches can be difficult (O’Donoghue, Jardine, & Rubner, 2010). Web-based student response systems (SRSs) used by students in the classroom can provide support for student participation in the class and enable anonymous and immediate feedback to questions during class time (Schaffer & Menzies, 2015). GoSoapBox™ is a Web-based SRS that allows students in class to answer questions anonymously using their own words in real time. Earlier traditional SRSs included wireless handheld devices that limited student responses to yes-or-no answers. More recent SRSs that are Web based, such as GoSoapBox, do not require built-in hardware, so students can use their own mobile devices and laptop computers for answering questions, class polling exercises, and engagement activities.

Advantages of using classroom SRSs include reported improvements in interaction, active learning, and engaged classroom environments (Fies & Marshall, 2006). It is recognized that not all students will feel comfortable participating in classroom discussions and may actually feel intimidated about this.
SRSs can help improve participation and engagement in classroom activities by facilitating immediate and anonymous responses to questions without the need to respond verbally (Fies & Marshall, 2006). It has also been noted that student misunderstandings pertaining to conceptual information delivered within the constraints of a traditional class may remain unidentified until assessment activities scheduled toward the latter end of a course are undertaken (O’Donoghue et al., 2010). The GoSoapBox program is an example of a contemporary Web-based SRS designed to facilitate favorable classroom interactions that support learning and teaching activities, including those that occur within the postgraduate education environment (Schaffer & Menzies, 2015).

The clinical pharmacology course being undertaken by the nursing students featured in this exercise is a tertiary-level course for postgraduate students, delivered using a blended approach. As this is a course delivered by distance, in-class teaching sessions occur during allocated block days held on specific dates where students have classes scheduled from 9:00 a.m. to 5:00 p.m. for 2 to 3 days at a time. In addition to e-mail, the online virtual learning environment and course management system, known as Blackboard®, are both used as contact media to ensure regular communication with all students in the course. One of the major challenges posed by distance learning is the limited face-to-face class time available with students during the block days. It is anticipated that a specific number of topics are covered when students are in class, with measurable learning outcomes requiring demonstration. This leaves little flexibility to allow semi-structured class time during the few block days.

The practical medicines review session described in this exercise is a problem-based learning (PBL) activity used for the clinical pharmacology course. PBL is the learning that occurs while working toward resolving a problem, which promotes deeper understanding and learning when compared with surface learning promoted by traditional lecture-based formats (Zhang, 2014). As nursing education shifts toward more student-centered learning, PBL activities are ideal to support the knowledge retrieval process and subsequent application to clinical situations and have been incorporated into nursing education programs (Zhang, 2014). Postgraduate nursing students were divided into groups and were provided with a patient case study with details of their current medicines, including questions pertaining to the patient situation. Students discuss the case and formulate their responses in small teams and then report back to the rest of the class, where a class-wide discussion is facilitated at the conclusion of the session. Students are given an opportunity to practice formulating responses to the patient situation, which are useful in determining student learning and understanding. These responses also help ensure that the teaching activities for the clinical pharmacology course are aligned with the course learning objectives.

**Aim**

The purpose of this work was to explore the use of the GoSoapBox program for a cohort of postgraduate nursing students undertaking clinical pharmacology during a practical medicines review session that adopted a PBL approach.

**Method**

Participants in this exercise were 15 postgraduate nursing students enrolled in a clinical pharmacology course. A 1-hour PBL session, called a practical medicines review activity, was scheduled into the teaching timetable. Students had been provided with a precirculated information sheet containing medication and case history details for a patient. In class, postgraduate nurses were supplied iPads®, enabling them to provide anonymous and immediate answers and feedback to questions using the GoSoapBox program. Students were instructed to identify the patient’s therapeutic objectives and priorities, define the medicines risks for the patient, and develop a medication management plan and communication strategy for the patient.

**Reactions**

Initial in-class responses to this exercise were varied, with some students admitting being nervous about the new technology, whereas others were completely comfortable with the task. A high level of activity engagement was evident during this PBL session. Further verbal feedback from the students at the end of the session indicated that students enjoyed the session. The anonymous nature of the GoSoapBox response tool in particular was commented on and much appreciated because it was not known which groups had posted particular answers, and this helped facilitate participation during the session. Improved intercommunication and peer interaction was observed among students and with the educators involved in the class activity.

**Conclusion**

The use of the GoSoapBox tool in this exercise appears to have facilitated improved engagement and fostered favorable peer interactions within a postgraduate class of nursing students undertaking a PBL activity as part of their clinical pharmacology course.

**References**


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