Promoting clinical decision making and teamwork in undergraduate nursing education: A mixed methods evaluation of team-based learning in applied pathophysiology

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Introduction

It is important for nurses to have a thorough understanding of the biosciences such as pathophysiology that underpin nursing care, but they can be difficult to learn. Team-based learning (TBL) is emerging as a strategy for enhancing learning in nursing education due to its promotion of individual learning as well as learning in teams (Branson et al 2016; Kim et al 2016).

Aim

The aim of this study was to evaluate the use of TBL in the teaching of applied pathophysiology to undergraduate student nurses.

Methods

In a year two undergraduate nursing applied pathophysiology module circulatory shock was taught by TBL, while all remaining topics were taught by traditional lectures.

The module was evaluated via:
- The Team-based Learning Student Assessment Instrument (TBL-SAI) (Mennenga 2012)
- Focus group discussions
- Exam scores for answers to questions based on TBL-taught material were compared with those from lecture-taught material.

Results

Subscales and Total Scale from TBL-SAI

*Key to figure: Lower, less than the neutral score for that subscale/scale; Neutral, equal to the neutral score for that subscale/scale; Higher, higher than the neutral score for that subscale/scale

Figure 1: Results from the TBL-SAI (n=167 students, 85% response rate)

As shown above in Figure 1, the majority of students (92% on Total Scale) had a favourable experience with TBL. Most students reported higher accountability (93%) and satisfaction (92%) with Team-based Learning. Lectures that promoted active learning were viewed as an important feature of the university experience [as elicited in focus groups], which may explain the smaller majority (76%) exhibiting a preference for Team-based Learning.

Focus Group Discussions

TBL-SAI responses were elaborated on in focus groups, where general statements were made in relation to the effectiveness of TBL, for example:

“I still remember it now more than what the other lectures that I…that were PowerPointed”

Conclusions

Most students preferred, and reported higher accountability and satisfaction with, TBL. Through contextualisation and teamwork, TBL appears to be a strategy that confers strong pedagogical benefits for teaching applied pathophysiology (bioscience) to student nurses.

References


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Further information