

Peer-Led Team Learning Model in a Graduate-Level Nursing Course

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ABSTRACT

The peer-led team learning (PLTL) model was introduced into a graduate-level course in health economics at our school of nursing. We believed this collaborative learning program, emphasizing peer-to-peer interaction to solve complex problems, would increase student engagement and mastery of course content. The course was redesigned to accommodate a weekly 1-hour workshop conducted by peer leaders. To gain better understanding of the effect of the PLTL model, focus groups were conducted at the end of the course. Evaluation of the focus group discussions showed that peer-led workshops helped students understand the subject matter. The opportunity to discuss concepts taught during lecture with their peers helped deepen students' understanding of the material and apply this knowledge in the classroom. These findings support continuation of the PLTL model in future health economics classes and suggest that this approach may be beneficial in other graduate level-nursing courses.

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Finding a successful teaching method is a continuously evolving task. Trends in Health Economics, Policy, and Regulations is a required course for students in two graduate programs at our school of nursing. Due to limited exposure to economics, many students find this course to be one of the most challenging in their program. The course professor was also challenged to find a method to help students both understand the material and gain confidence in their ability to successfully complete the course. Peer-led team learning (PLTL), a collaborative learning model emphasizing student interaction, had been successfully integrated into selected courses at the university. Results from this program convinced the professor to introduce the model at the school of nursing. The objective of this article is to explain the implantation of the PLTL model in a school of nursing graduate health economics course and describe students' perceptions and responses to PLTL.

The Peer-Led Team Learning Model

Peer-led team learning is an educational model that features small-group, weekly workshop sessions to complement course lectures. The focus of the workshop is a set of problems designed by the instructor to reinforce material presented in lectures or readings. Students work collaboratively to solve the problems, and building confidence through the problem-solving process is emphasized. Workshops are conducted by a peer leader—a student who had previously done well in the course. Peer leaders are not expected to be experts, but their increased knowledge of the course material makes them ideal candidates to facilitate learning in a nonthreatening setting (Gosser, 2001).

The philosophy of the PLTL model (Cracolice & Trautman, 2001) relies on constructivist theories, which assert that learning is a process through which information, integrated with previous knowledge and experiences, becomes understanding. Accordingly, the workshop environment allows students to make sense of the content provided in class and to construct their own genuine meaning of the concepts. The material mastered becomes the foundation for learning more complex concepts. Research in cooperative learning shows that working in small groups enhances student achievement; peer leaders and other students provide the social support to foster learning (Cracolice & Trautman, 2001).

Little is known about students' perceptions and views of the PLTL model in graduate-level courses or nursing education in general. Other types of collaborative learning, such as peer mentoring in clinical settings or simulation laboratories, are used

successfully in nursing education. Reported advantages of these collaborative learning models include enhanced learning by reinforcing course content, increased critical thinking, increased collegiality among students, and decreased anxiety (Becker & Neuwirth, 2002; Bensfield, Solari-Twadell, & Sommer, 2008; Owens & Walden, 2001).

Collaborative learning has also been used in the classroom. In the team-based learning model, students study assigned material in advance and work on group assignments during class time. However, unlike PLTL, these work groups do not use experienced peers as team leaders but rely on course faculty to facilitate learning (Clark, Nguyen, Bray, & Levine, 2008; Johnson & Mighen, 2005).

Another method, problem-based learning, encourages students to synthesize knowledge by exploring complex, real-world scenarios. Working in self-directed groups, students construct problems and search for solutions, which in turn leads to a deeper understanding of the course material (Demiris & Zierler, 2010; Eberlein et al., 2008). Although problem-based learning has been used to replace or supplement traditional lectures through independent learning, PLTL focuses on reinforcing lecture content. Typically, problem-based learning relies on expert tutors, although when expert tutors are not available, peer tutors have been used (Lin, Lu, Chung, & Yang, 2010).

Implementing the Model in the Health Economics Course

During the spring 2010 semester, the PLTL model was introduced into the curriculum of Trends in Health Economics, Policy, and Regulations. The course was redesigned by replacing 1 hour of lecture time with a weekly, 1-hour mandatory workshop. Thirteen students were enrolled in the course. Nine students were from the Leadership in Health Care Systems and Doctor of Nursing Practice programs and had no previous course work in economics; three were earning their doctorate in Health Services Research, and one was an undergraduate economics major. The class was divided into two workshop groups. Believing that diversity would facilitate discussion, the professor placed a mix of Leadership in Health Care Systems, Doctor of Nursing Practice, and PhD students in each group. The peer leaders were graduate nursing students who had excelled in the course the previous year. To prepare for the role, the peer leaders attended a weekly Leadership Training Seminar provided by faculty from the university's Center for Excellence in Teaching and Learning, which focused on the principles of team leadership and adult learning. Peer leaders also met weekly with the course instructor to review the workshop problems for the upcoming week.

Each week, the professor created a set of workshop problems based on the lecture and assigned readings. Immediately following the lecture, students broke into small groups to discuss the problems. For example, after the class on Medicare, students discussed the feasibility of prescription drug coverage and calculated out-of-pocket expenses based on the annual cost of an individual's medications. Answers were not provided to the students; in fact, not all questions had a right or wrong answer. The peer leader guided the discussion when necessary, but students became more self-directed as the semester progressed.

Students' Perceptions of the Workshop Experience

To fully understand the students' attitudes and beliefs about workshop participation, the authors added a focus group discussion as part of the course evaluation (Allen, 2004; Stewart, Shamdasani, & Rook, 2007). On the basis of workshop components found to be crucial to the success of PLTL (Gosser, 2001), we sought to answer the following questions:

- What factors in the workshop experience do students perceive as promoting learning?
- Do students believe that interaction with workshop leaders helps them master the course material?
- Do students think the workshop problems contribute to a better understanding of course content?

Guided by these questions of interest, we developed an interview guide composed of open-ended questions to encourage group discussion. Questions were constructed to elicit general thoughts about the workshops, as well as specific elements of the model. The tool was reviewed and revised with the focus group leaders and the instructor from the Center for Excellence in Teaching and Learning (Table).

After the final workshop, students were asked to participate in a 1-hour focus group moderated by experienced facilitators. To take advantage of the relationships developed in the workshops, students remained in their original groups. Participation was voluntary and the students could leave at any time. Students were assured they could skip questions that made them uncomfortable, responses were confidential, comments would not be attributed to individuals, and participation would not affect grades. Twelve students participated in the focus groups.

The discussions were recorded and transcribed verbatim. First, the authors independently reviewed the transcripts of both focus groups to get a sense of the overall ideas expressed. Next, we identified key words and grouped similar concepts into categories. We then met to compare findings and look for common patterns across the groups (Sandelowski, 1995). The final step was to identify the themes revealed through the focus group interviews.

Students' Perceptions of the Peer-Led Team Learning Model

Responses from the focus groups underscored the importance of three elements crucial to success of the workshops: (a) the small-group environment, (b) the interaction with peer leaders, and (c) the problems discussed in the workshops. Additional comments reflected other factors that enhanced or detracted from the PLTL experience. The following five themes were identified.

Theme One: Students Perceived That Working in Groups Promotes Learning

The process of discussion, integral to the workshop environment, fostered critical thinking. Group discussion allowed students to explore the concepts covered in class at a deeper, more personal level. As one student said, "I think the workshops have given us a working knowledge of this information rather than just book knowledge or test knowledge." Consistent with the premise of PLTL (Cracolice & Trautman, 2001), explaining health economics to each other helped students to reinforce the

TABLE

Focus Group Questions Used in the Peer-Led Team Learning Model

1. Can you describe how your experience in the workshop affected your learning in the course Trends in Health Economics, Policy, and Regulations?
2. Specifically, how did the opportunity to discuss the material taught during lecture, in a small group with your peers, affect your learning?
3. One feature of the workshop model is the opportunity to build knowledge through group discussion rather than focusing on “getting” the answer. What are your thoughts about this approach?
4. What do you think about the concept of working with a peer leader?
5. From your perspective, what do you see as the advantages of having workshops as part of this course? What do you see as the disadvantages?
6. What kind of suggestions would you make for how we can improve the workshop experience?
7. What are your thoughts about using the workshop model in other classes you have taken?
8. What do you think about the length of the workshops?
9. What are your thoughts about the types and number of problems you were asked to solve in the workshops?
10. Is there anything else you would like to share before we finish the focus group?

concepts presented in class. The students in each workshop represented a range of personal, academic, and professional experiences. They recognized that these varied experiences increased the depth of discussion and enhanced their ability to solve the problems, as reflected by one student’s comment:

Diversity brings a lot to the workgroups.... We’ve all grown up in different environments and...experienced different things...being able to apply...[our attitudes, opinions, and views] to the principles and the concepts we learned in class makes the information...more applicable to our lives and... something that will stick with us longer than just reading in a book and taking a...test.

Theme Two: Peer-Led Workshops Created a Safe Environment for Students

Many students found the health economics course challenging, and throughout the semester several students expressed feeling anxious and overwhelmed. These feelings again emerged in the focus groups. Some students were cautious of speaking up in class for fear of being wrong; however, in the workshops they felt safe sharing their ideas. One student commented:

Having a peer eliminates any of that fear that you’re going to be judged.... If it’s your professor sitting with you...there are times when you could be [intimidated] because you feel that it’s going to go towards your grade for participation, but...a peer removes that element of intimidation.

In a small group with their peers only, students felt comfortable enough to risk answering a question—even if it meant making a mistake. Sometimes, this benefit extended to the classroom: “I know I feel comfortable discussing [in the workshops] and it probably made me more comfortable discussing concepts within the class.”

Theme Three: The Timing of the Workshops Affected Students’ Perception of Their Value

The workshops were held directly after lecture, and students disagreed about the effectiveness of that timing. Some liked the

opportunity to discuss the material immediately, as indicated in the following comment:

Having the workshop right after the class was helpful for me because normally I would leave class, put my notes away.... This way...you get a little break and then you get to reflect on the information [covered in class].

Other students felt saturated with information from the lecture and thought conducting the workshops after they had a chance to review the problems independently would be better, as evidenced by the comment:

If we had gotten the questions, had a few days to sit down and...think about the material, then come in and have a group discussion... I think it would have been a lot more useful.

Collectively, these three themes highlight specific factors in the workshop experience that students believe promote their ability to learn, thus addressing our first research question.

Theme Four: Students Thought Peer Leaders Enhanced Group Discussion

Our second research question was whether interaction with workshop leaders helped students master the course material. Students reported that they found it reassuring when peer leaders shared their experiences in taking the course and appreciated their ability to empathize with the student experience. They valued having a peer lead the workshops but cautioned that to be most effective, peer leaders should guide the discussion and not reteach lecture material. If the discussion was heading in the wrong direction, students found it helpful when the peer leader redirected them. As one student said, “[The peer leader] told us right up front that it was not her job to teach us and she didn’t... but she certainly led us in the right direction and made us think.”

Theme Five: Students Wanted Workshop Problems to Be Sufficiently Challenging

Equally important to the success of the PLTL model are the workshop problems. For our third research question, we wanted to determine whether students felt the problems contributed to

a better understanding of course content. Early in the semester, the workshops featured numerous multiple choice questions related to microeconomics. However, when the lectures turned to the application of economics in health care, the questions were fewer but more complex, abstract, and open-ended, which were more likely to encourage discussion. The multiple choice questions were deemed as less useful in encouraging discussion, and students sometimes felt rushed to answer the large number of multiple choice questions required to practice concepts that were learned in class.

Some students wanted to know what the “right” answers were. As one student said, “. . .not really having an answer [in the workshop] always bothered me, because I wanted to know whether or not I was going in the right direction.” Conversely, students did acknowledge that focusing only on the answers to problems could lessen their ability to build knowledge through discussion.

Discussion

The overarching theme of the focus groups was that the peer-led workshops played a pivotal role in helping students understand the subject matter presented in the course. We found that students believed that the peer-led workshops stimulated interest in the course, enhanced critical thinking and problem solving skills, decreased student anxiety, and created a safe environment for learning to occur, which is consistent with findings from PLTL studies in other disciplines (Platt, Roth, & Kampmeier, 2008; Preszler, 2009; Quitadamo, Brahler, & Crouch, 2009; Tien, Roth, & Kampmeier, 2002). The findings of our focus groups echoed a theme noted in the evaluation of other collaborative models in graduate nursing and health care courses: the role of the leader is critically important. Successful facilitators mentor participants as they integrate classroom theory and practice. They challenge wrong assumptions but resist the urge to impose knowledge; instead, they support the problem-solving process within the group. A leader, who can deftly guide the group while allowing the students to take responsibility for their own learning, is key to the success of collaborative learning (Carlisle & Ibbotson, 2005; Demiris & Zierler, 2010). Peer-led team learning provides an additional benefit. In contrast with models using faculty leaders, our findings confirm that peers can capitalize on their own past experience in the course to support current students. They also help to create an environment that encourages discussion and is not judgmental or intimidating to students.

Students in the focus groups identified specific areas for improvement. Most notably, additional consideration should be given to the workshop problems. Students clearly stated a preference for open-ended questions that allowed them to fully examine the concepts. Although the goal of the workshops was to enhance learning—not necessarily to review for tests—the workshops did help students feel more prepared for tests. A clear understanding of the relationship between lectures, workshops, and evaluation is essential to ensure a fully integrated course. In implementing the PLTL model in the future, the school of nursing faces one significant challenge—the timing of the workshops. Holding the workshops immediately after class caused frustration for some students; therefore, methods to allay potential frustration must be found.

Although focus groups can provide valuable information, limitations exist. The responses reflect a snapshot of thoughts and feelings of one distinct population on one day, which could change over time. Thus, it is difficult to generalize these results to other groups. Although anonymity was assured and the focus group leaders were experienced in drawing out even the most reticent participants, some students may have been reluctant to share their views. Cross-group analysis showed subtle differences. It is not possible to tell whether this was due to inherent differences in the groups or in the peer leaders or due to different approaches by the focus group facilitators. Future research should include qualitative and quantitative evaluation of the PLTL model in additional courses over time, including an assessment of objective measures of learning to determine whether these correlate with students’ perceptions of the value of PLTL.

Conclusion

Our experience indicates that PLTL is a promising approach to foster student engagement in challenging courses within the graduate nursing curriculum and suggests that this model may be beneficial in other graduate-level nursing courses. Students valued the opportunity to explore issues in depth and to synthesize knowledge to solve complex, real-world problems. The nature of the group process, diversity of the workshop participants, peer leader facilitation, and the nature of the workshop problems were important elements for success. As one student declared, “I could not imagine this course. . . without the workshop.”

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