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Transforming Psychiatric Mental Health Nursing Education With Team Based Learning

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A B S T R A C T

The aim of this study was to evaluate the effect of the team-based learning (TBL) instructional approach on learning outcomes in an undergraduate psychiatric mental health (PMH) nursing course. An uncontrolled, before and after design was employed. Data were collected over eight consecutive semesters ($N = 347$) before and after implementation of TBL. Two variables were selected for comparison before and after implementation: scores on PMH portion of the Evolve® practice exit examination and time (in hours) students reported preparing for class. After implementation, students scored higher on the PMH practice exit examination and reported increased study time. Qualitatively, students reported enjoying working in teams despite the increased study time required with the TBL method.

BACKGROUND

Tradition and expert opinion were once the bedrock of psychiatric mental health (PMH) education. Historically, nurse trainees received group instruction in psychiatry from, and read textbooks written by, psychiatrists and chaplains. Experienced nurse supervisors cited hospital policies and demonstrated proper therapeutic nursing technique to students who perfected their skills while working as ward nurses, often under the direction of a more senior student (Harmon, 2005). Visionary nurse leaders of the 20th century recognized the need to improve care by transitioning nursing education from a hospital-based, trainee–apprentice model to a professional practice model that utilizes nurse-authored textbooks and employs graduate nurse faculty who teach, provide direct clinical care, and conduct research in institutions of higher education (Keeling, Brodie, & Kirchgessner, 2010).

Once again nursing education is in the process of transitioning to keep pace with changes in practice. These changes require nurses to challenge routine interventions and to replace outdated treatments with up-to-date, evidence-based practices in a rapidly-changing, complex healthcare environment (Benner, Sutphen, Leonard, & Day, 2010). Nowhere is this more evident than in PMH nursing. Formerly policy and procedurally-based and heavily dependent upon tradition, PMH has evolved into a hierarchical, evidenced-based science with newly revised PMH standards of practice (ANA, 2014) that include research, communication, and collaboration skills recommended in the Quality and Safety Education for Nurses (QSEN) pre-licensure competencies (Cronenwett et al., 2007) and the American Association of Colleges of Nursing (2008) Baccalaureate Essentials. Accompanying this evolution was a call to move away from traditional classroom lectures toward active learning pedagogies. In response to this call, PMH nurse educators must creatively instill these competencies in the classroom, competencies that cannot be acquired through traditional lecture-based instruction. This article describes the process and outcome of implementing an evidenced-based active learning pedagogy, team-based learning (TBL), in a required undergraduate fourth-year PMH nursing course.

The Traditional Classroom

Many nurse educators teach as they were taught, using a lecture-based format with periodic testing (Benner et al., 2010). With this instructional approach, expert nurse educators function as the *sage on the stage*, serving as gatekeepers of knowledge using class time to deliver large amounts of material to relatively passive students (Michaelsen, Parmelee, McMahon, & Levine, 2008). There are challenges that accompany the traditional approach to teaching: motivating students to prepare for class, bridging the gap between concept acquisition and application in practice, and improving critical thinking (Everly, 2013). To overcome these challenges, students need to be accountable for pre-class preparation and given opportunities to practice planning effective care—care that is safe, patient-centered, team focused, evidence and informatics-based, and of high quality (Cronenwett et al., 2007).

The Collaborative TBL Classroom

Transitioning from a traditional educational model to a classroom in which active learning takes place requires a paradigm shift for both students and educators. Instead of just presenting content through didactic lectures, active learning pedagogies teach students how to process and use knowledge thus promoting critical reasoning through the

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application of concepts. However, creating a course that has student engagement at its core can be a time-consuming and, at times, daunting task for nursing faculty. In addition, the potential exists for nursing students, accustomed to receiving content passively, to resist course redesign that fosters active involvement in the classroom.

The team-based learning instructional approach, first described in 1982 (Michaelsen, Watson, Cragin, & Fink, 1982), fosters group learning based on the premise that team cohesion promotes learning (Michaelsen & Sweet, 2008). Functioning as *the guide on the side* who assists students in learning how to collaborate and use current resources (King, 1993), the nurse educator follows a specific course design sequencing to engage and motivate students: (1) the formation of heterogeneous teams, (2) the creation of student accountability, (3) the provision of immediate student feedback, and (4) the provision of meaningful, real-world team assignments (Sisk, 2011).

PURPOSE

With its origin in the social sciences, the TBL instructional approach has been successfully used in healthcare education, including medicine, pharmacy, dentistry, and veterinary sciences (Clark, Nguyen, & Bray, 2008; Dunaway, 2005; Hrynchak & Batty, 2012; Mennenga & Smyer, 2010; Michaelsen et al., 2008). The majority of research using TBL has been conducted in medical schools (Hrynchak & Batty, 2012; Searle et al., 2003). A systematic review by Sisk (2011) revealed that outcome variables have focused on student satisfaction, student engagement, and examination scores. Conclusions indicated that TBL increases students' class engagement, fosters self-directed and teamwork learning, and improves academic performance in weaker students through structured study (Cheng, Liou, Tsai, & Chang, 2014).

Although relatively new to nursing, evidence of application of this approach can be found in applied ethics, maternal–child, medical–surgical, and community health nursing courses (Cheng et al., 2014; Clark et al., 2008; Currey, Oldland, Considine, Glanville, & Story, 2015). Nursing education literature indicates that students who engage in active learning in the classroom score significantly higher on standardized assessment tests than students who receive lecture only (Della Ratta, 2015; Everly, 2013). The evidence also suggests that academically-challenged students demonstrate improved outcomes in courses taught using TBL (Koles, Stolfi, Borges, Nelson, & Parmalee, 2010). Based on this evidence and after a systematic review, Sisk (2011) recommended that NCLEX-RN scores be compared before and after TBL implementation to determine whether there is actual improved learning. Therefore, the purpose of this study was to evaluate the effect of TBL on learning outcomes in a required fourth-year PMH nursing course.

METHODS

Study Design

An uncontrolled before and after design was used to determine if there was improvement in student Evolve® PMH practice exit examination scores after transitioning from lecture-based instruction to the TBL method in a required undergraduate PMH nursing course at the University of Virginia School of Nursing.

Instructional Design and Implementation

Two seasoned nurse educators collaborated on the design, implementation and evaluation of the TBL process: one (the course instructor) had more than 10 years of traditional lecture teaching experience in PMH and the other (the graduate teaching assistant) had 7 years of experience using the TBL instructional approach in a women's health course at another university. The textbook and course instructor remained consistent throughout the study period.

As noted in the Introduction section above, TBL has a set of specifically prescribed components, including team formation, student accountability, immediate feedback, and real-world team assignments.

Team Formation

Building successful teams requires planning (Parmalee & Michaelsen, 2010). Prior to the first class, the instructor divided the class into small teams of five- to seven-members and posted the group assignments and seating chart on the course website. To simulate real-world healthcare, students were not permitted to change teams to be with friends, but were required to engage in the complicated process of becoming a team over the semester. With instructor assistance, students experienced and reflected on their team's process of forming, norming, storming and performing (Tuckman, 1965) while mastering skills needed for future work situations requiring team collaboration.

Student Accountability and Immediate Feedback

Ensuring student accountability also requires advanced planning by the instructor. Students completed assigned readings, viewed videos or explored websites prior to class, and arrived in class prepared to complete an individual ten-item knowledge and comprehension-level multiple choice quiz, also known as an Individual Readiness Assurance Test (I-RAT), based on the pre-class assignment. Once individual answer sheets were collected, students completed the same ten-item quiz as a team (T-RAT) using scratch-off Immediate Feedback Answer Technique (IF-AT) answer cards (available for purchase at http://www.epsteineducation.com/home/about/) which enabled students to share and debate PMH knowledge gleaned from the pre-class reading and preparation. Each member of the team had the opportunity to serve as the team facilitator who is responsible for engaging all members until consensus on the answer to each question was reached. The team score was then calculated by the team facilitator and submitted to the instructor on the answer sheet.

During administration of the team quiz the instructor circulated among the teams, listening in on team discussions to gain insight into students' understanding of content and to offer redirection as needed. Teams had 5 minutes to appeal in writing any questions that were missed by citing compelling evidence from the text or other professional sources. The appeal process completed the Readiness Assurance Process. Once submitted, the instructor briefly reviewed the team answer sheets for missed questions to identify concepts requiring clarification (Mennenga & Smyer, 2010). The instructor used a portion of class time to clarify these concepts through a mini-lecture.

Real-World Team Assignments

Through the Readiness Assurance Process, students had the opportunity to interact with the course content as many as five times, providing a pedagogically powerful experience. With basic content mastery assured in the first 30 minutes, the remaining class-time was available for team learning activities designed to apply new PMH knowledge in real client and work-related scenarios (Michaelsen & Sweet, 2008).

In this study, the most time-consuming part of implementing TBL was designing quality team learning activities to provide students with opportunities to compare, analyze, or debate critical views. Each week a role play, case study, or another activity required in-class team application of newly acquired PMH content. Activities were created using QSEN, Evolve and other websites, or a case study based on a compilation of instructor/client experiences. Through these learning activities, students connected new information with previous learning, long-term retention was enhanced, and critical thinking and cooperation among diverse individuals were promoted (Fink, 2003). An example of a team learning activity can be found in Fig. 1.