The “Tree of Pharmacology”: An Ornament-Making Project

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New graduate nurses play a pivotal role in providing safe and competent care, including the administration of medications to patients with various health conditions. The understanding of pharmacology involves more than memorizing drug classifications and their uses. It includes an understanding of the pharmacokinetics and pharmacodynamics, mechanism of action, nursing considerations, and potential adverse side effects. Undergraduate students often find the mastery of pharmacology concepts to be complex (Aronsson et al., 2015), requiring faculty to engage students in active learning settings, while addressing the psychomotor and cognitive domains of learning.

According to Aleinikov (2013), creative pedagogy encompasses the science and art of creative teaching. Creative pedagogy not only teaches students to learn through self-expression and artistry, it also encourages them to become creators while sparking creativity in educators in support of a collegial environment (Aleinikov, 2013; Ma et al., 2018). The assignment design encourages improved retention of the broad and rigorous material in an undergraduate nursing pharmacology course because “creative teaching helps to restore enthusiasm in the students and makes learning a lively and de-stressful experience that leads to the life-long learning orientation” (Joshi, 2018, p.1).

Method

Thirty-seven bachelor of science in nursing prelicensure, junior-level students in a stand-alone nursing pharmacology course consisted of seven groups covering different medications. The instructions of the assignment directed students to collaborate and establish roles such as researchers, developers, and a

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presenter to support team-based learning. During class and prior to the activity due date, concepts and content relating to the medications were presented. Groups had the option to focus on the objectives related to the main nursing considerations or the potential side effects of their assigned medication. Students met outside of class to create the ornaments on an agreed upon time and date, and most materials were simple art supplies students had at home and shared. The groups presented their ornaments in class on a specified due date and related the important concepts to their peers, spending close to 3 to 5 minutes highlighting the relevant medication information. The faculty clarified content in a 2- to 3-minute postpresentation question and answer forum as needed.

Results

Faculty offered the students a 5-question survey to describe their experience related to the ornament activity and the benefits to learning pharmacology. Seventy-six percent of students rated the project as moderately to extremely helpful in retaining information. Ninety-six percent reported the project as very easy to extremely easy to accomplish. Ninety-two percent of the participants reported that the project was moderately to extremely relevant to the course content, and 88% of the respondents reflected that the project helped to build on the foundation of team-based nursing concepts. In addition to the survey, students expressed ease in recalling pertinent information during various informal discussions— such as after course examinations and during clinical medication passes—after completing the ornament activity.

The last question on the survey requested that students choose words of emotion describing how they felt about the project. The students could choose from the following words: *relaxing, cheerful, pleasant, effective, easy, interesting, joyful unpleasant, frustrating, disappointing, boring, complicated, stressful, or ineffective*. Ninety-two percent of the students described the ornament activity as being relaxing, cheerful, pleasant, easy, or joyful.

Conclusion

Pharmacology is a complex and heavy content-laden course that requires quality education to impart the knowledge that nursing students need to practice safely in all clinical settings. The primary benefit expressed by the students was that it proved to be a helpful strategy in recognizing medication classifications and their effects while practicing in the clinical setting. A secondary gain from the activity is the socialization aspect that occurs between students when working in small groups. The students shared their values and beliefs creating a sense of belonging within the cohort. This simple, collegial, morale-boosting assignment is an effective approach to enhancing the understanding of nursing pharmacology. The pharmacology ornament tree is so beloved by the students that it is permanently displayed in the high-traffic simulation laboratory area for continuous learning opportunities.

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