Reflections of Problem Based Learning (PBL) in a Nutrition Course
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Students entering the junior level course, Nutrition throughout the Life Cycle (FN 373) learn to utilize their nutrition knowledge from lower level courses to perform basic nutrition assessments on individuals through the life span. Although courses in introductory foods and nutrient metabolism are prerequisites, the transition from knowledge based learning to application was challenging to most students in the class. The use of SOAP notes for charting, defined by subjective, objective, assessment, and plan are introduced as a method to categorize, organize, and approach each case study; this method of charting is still used by the medical profession.

The concept of problem based learning (PBL) originated from medical schools. I had experienced this learning process firsthand in a dietetic internship program years ago. During the first week of the semester, I announced to the class that they will be introduced to the assessment process using PBL. From the students’ reactions, it was clear that this was their first exposure to the approach. With a class of 58, students needed to work in small groups in order to facilitate more hands-on learning; they were given the freedom to form their own groups of 4-5. Students are given a realistic scenario of a patient with a nutrition issue, one they may encounter in their personal lives or future careers. They work in groups to address key questions such as nutritional concerns, data or facts they already have, important issues or information that may be missing, what they need to analyze and solve the problem, and solutions or recommendations that may be appropriate. (Fink 135)

The first case study introduced Benny, a sophomore majoring in sociology who had experienced gradual weight gain. Groups spent approximately 10 minutes brainstorming questions they would need to assess Benny’s nutritional status. Index cards were given to each group to identify the names of group members. One student was asked to draw a random card to determine which group would come up to write their questions on the board. One member from the group wrote down questions and explained their thought process to the class. A second card was drawn and a representative from another group added to the questions their group had identified that were missing on the board. Afterwards, I provided answers to the questions suggested by the 2 groups to present a clearer picture of the client. Overall, the two groups did fairly well considering this was their first exposure to PBL and were able to identify most of the elements missing from the case study with the exception of Benny’s living conditions, gastrointestinal complaints, lab work, and clinical observations. This was later revealed to the class to encourage discussion and facilitate learning for the next case study.

For many of the life cycle stages, students were introduced to different characters with specific nutrition issues and concerns. This ranged from Michaela and Tate, a couple in their late twenties with fertility issues, Mrs. K. who was expecting her second child but concerned about gaining too much weight, Cindy, a new mom who worries about meeting her newborn’s needs with breastfeeding, 5 year old Trista with picky eating habits, 13 year old Gwen who is a vegetarian, Mr. C with a family history of heart disease, and Mrs. S, a 70 year old widow with unintentional weight loss.

Students were encouraged to complete an anonymous survey on D2L to collect feedback relating to the use of PBL in our class. Using a likert scale which ranged from strongly agree to strongly disagree, answers to the following survey questions were collected.

The use of problem based learning was helpful for identifying information I would need to complete a nutrition assessment. (N = 37)

I felt more capable applying my assessment skills after using problem based learning. (N = 37)

Problem based learning made learning more interesting. (N = 37)
Students were also asked to provide 3 suggestions on how PBL could be improved in our class. Some common themes that emerged were the formation of smaller groups to encourage more equitable participation, plan for more discussion time after the completion of each case study, provide each student with a worksheet instead of sharing one worksheet per group, and posting answers on D2L to allow for review after the class. Since some of these comments were posted several weeks prior to the end of semester, suggestions for smaller group size and providing each student with their own worksheet were implemented for the last two PBL case studies. Overall, PBL seemed to enhance students’ assessment skills and made learning more interesting. Future plans for the course will definitely include the use of PBL with consideration for students’ feedback to further refine and improve the process.