

STUDENT LEARNING OUTCOMES PROJECT REPORT

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Program in Nursing Science

Project description

The nursing science major prepares students for professional practice in a complex health care environment. The purpose of this project is to (a) describe student learning outcomes for each major component of the nursing science curriculum (scholarship, leadership, clinical excellence) and their links to Nursing Science curriculum (b) develop preliminary procedures to assess the achievement of these outcomes; and (c) conduct a pilot assessment of the effectiveness of our curriculum in preparing our students for their National Council of State Boards of Nursing Licensing Examination for Registered Nurses (NCLEX-RN) exam. We used a standardized training program to prepare students and the pass rate on the NCLEX exam to conduct our first review of the curriculum.

We used two direct methods of assessing our student learning outcomes. The NCLEX is a comprehensive standardized exam that assesses nursing knowledge and the ability of the test taker to apply that knowledge in professional practice. The NCLEX must be passed in order to be licensed as a registered nurse. Nursing schools are required to maintain a yearly passage rate which reflects the national average for other schools in California. The primary assessment tool we used to evaluate our curriculum is the Assessment Technologies Institute (ATI) training program for preparing our students to take their NCLEX exam. ATI educational products test knowledge in a variety of content areas mapped to the 2007-2010 RN NCLEX Test Plan (e.g., comprehensive application of knowledge about nursing fundamentals, pediatrics, medical surgical, psychiatric, community health, and obstetrical nursing). The students completed the ATI test for all subject areas in our curriculum in the winter and spring quarters of 2009. These tests assessed the core nursing curriculum. The students' initial test results gave instructors knowledge about areas they needed to review in greater depth. This information allowed program faculty to re-evaluate their curriculum and improve course content and teaching strategies.

Once the preliminary testing was completed, the students were instructed to remediate using the materials provided by ATI. These materials are designed to prepare nursing students for the NCLEX examination by systematically increasing student's

knowledge base while training them to demonstrate application of that knowledge in a standardized testing format. The scores from these remediation exams assessed ATI's effectiveness in helping students improve their scores on an NCLEX-like exam. The final assessment of the effectiveness of the ATI program in preparing our students for the NCLEX, however, is our students NCLEX scores.

In addition, we have created an assessment focused on student scholarship and leadership. Toward this end, the tenure-track faculty mentored students through the process of identifying a clinically relevant topic to research, doing a thorough literature review on the topic, and either engaging in research with a faculty mentor on the topic, or developing a nursing process protocol that reflects the evidence base available on that topic. The students were required to present a poster describing their research or practice protocol at Nursing Research Day at the end of spring quarter 2009. The tenure track faculty developed an assessment rubric to grade student projects that help us examine whether student objectives related to scholarship and leadership have been met.

Accomplishments

Initial Comprehensive Predictor testing January 2009. In the first test using the ATI Comprehensive Predictor assessment our students scored on average slightly below the national mean (66.5% vs. 70.6%). Of the 36 students who took the exam, 8 were more than 90% scored in a range that would have been likely to pass the NCLEX, 15 scored 75-90% likely to do so, and 13 were less than 75% likely to pass. As the students were taking this test without any preparation and having not completed all courses relevant to the test (i.e., community health), this findings was not unexpected. In fact, given these factors we feel they did relatively well.

Follow-up Comprehensive Predictor testing June 2009. On the second follow-up ATI Comprehensive predictor the mean score did indeed rise to 68.8% with 66% of the class seeing a rise in their scores. Of the 36 students who took this exam, 15 scored in a range that would have been over 90% likely to pass the NCLEX, 12 scored 75-90% likely to do so, and 9 were less than 75% likely to pass. These scores are likely to reflect, in part, the work the students had to do to remediate (review material and retest to 90% correct for all ATI subject area tests). However, some students made it clear that they felt

ATI was not helpful to them and that although they did the required remediation, they were not using it to their fullest to prepare for the follow-up Comprehensive Predictor.

NCLEX testing. Between July 2009 and December 2009 all students took the NCLEX exam. Eighty-three percent (N=30) passed the test on their first try. Of the six remaining students four (11%) passed on their second try, one (3%) on her third, and one (3%) failed each of three attempts. Ideally, we would like to see over 95% of our students pass on their first try, as this is considered a standard acceptable pass rate among the established nursing programs.

Toward this end, and with the encouragement of the ATI representative, we have changed our use of the ATI subject tests so that we now have incorporated them into the course requirements for the current seniors. This change in policy occurred in response to the students own admission that they were not really preparing for ATI and not using the ATI materials other than taking the tests. At this point the students' grades on ATI assessments now count toward their course grade, in the hopes that this will provide additional incentive for them to use the book, DVDs, and other online materials to prepare themselves for their assessments. The current seniors are being asked to use the materials to prepare, to practice online assessments before the proctored assessment, and to remediate completely in order to get credit for the ATI portion of their grade. We will evaluate, using this year's NCLEX scores, how well this new strategy for using ATI will work to improve the pass rate for the NCLEX for this group of students.

Nursing Research Day poster evaluation. In June of 2009 we sponsored our first Nursing Research Day at which our students presented a poster reflecting their review of a small body of literature on a clinical practice problem of interest to them. This presentation counted for 30% of their grade and a rubric was created for evaluation of the students posters. In order to tap into the scholarship reflected in this work we assigned 20% of the grade to the content of the poster. The remaining 10% of their grade reflected their ability to present the material to us as well as the community members present as an indication of professionalism and leadership. Overall we found the students were highly motivated to do excellent work as they were required to share the work with people outside of the nursing program. Their grades/scores on these grading rubrics reflected the hard work and effort the students put into this presentation.

Future steps for sustainability.

Since receiving this grant to initiate our use of ATI to prepare our students for their NCLEX, it has become policy that all students must buy access to ATI as part of their nursing curriculum. We realize this is a significant cost to pass on to the students, however, the cost of not being prepared to take the NCLEX and having to retake it outweighs the initial cost as it could potentially result in not being licensed to practice. It is also important for us to be able to use ATI subject test results to guide course revisions as they indicate to us the areas of weakness in our students.

At present course instructors in the core content areas covered in the NCLEX are using the ATI test results to guide changes in course materials. For example, in the psychiatric nursing course NS140 it was apparent that the students needed additional exposure and teaching about psychotropic medications. As a result, this year's class has been required to prepare drug cards on 20 of the most important drugs used in psychiatric settings. In addition, instructors from the maternal health, pediatric, medical-surgical nursing courses are similarly using the group scores provided by ATI to evaluate and improve their courses so that they better meet the needs of the students in preparing them for the NCLEX.

At the same time, we regularly discover new ways for our students to use ATI materials so they are prepared licensure exam. We held meetings with ATI representatives to help us develop a more effective strategy for incorporating ATI into our program. We are currently implementing a new approach to remediation using several new components of ATI. We are now incorporating written exercises, online practice assessments, video training sessions, and other materials into the remediation process for the current group of juniors and seniors.

In order to further develop the leadership and scholarship of our students we are also in the process of refining our NS 179BW course. We have enhanced the writing training by adding in peer review, and have conducted additional seminars to help students understand better the methods they need to use in critiquing/evaluating the research. Ultimately, we plan to restructure this course to focus on standardized clinical protocols, established through rigorous research, so that they can be better prepared as they venture into clinical practice.