COMPUTER-ASSISTED INSTRUCTION IN NURSING EDUCATION

AN ABSTRACT OF

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ABSTRACT

This study was undertaken to determine if computer-assisted instruction along with the traditional lecture-discussion method of instruction would enhance cognitive learning of neurological assessment for baccalaureate nursing students. Lecture-discussion with computer-assisted instruction supplementation versus traditional lecture-discussion method of instruction alone was studied using a sample of 16 senior baccalaureate nursing students to compare scores on a paper and pencil examination. A quasi-experimental design utilizing volunteer students randomly divided into control (C) and experimental (E) groups yielded a study sample of nine (C) students and seven (E) students. Students from both groups were pretested using a 10-question multiple-choice examination, attended the neurological nursing class, and were posttested using a second 10-question multiple-choice examination. In addition, the experimental group completed Medi-Sim Incorporated's Neurological Nursing Assessment computer-assisted instruction program as a supplement to the lecture.

The hypothesis that baccalaureate nursing students taught neurological assessment with the computer-assisted instruction and traditional lecture-discussion method

would have significantly higher scores on a paper and pencil examination than those students taught with the traditional lecture-discussion method alone was tested using a two-tailed independent t-test. The hypothesis was rejected at the $p<.05$ level of significance with results showing a mean of 67% for the experimental students and a mean of 62% for the control students on the posttest. Both groups of students were found to have learned irrespective of teaching strategy ($p<.05$). However, experimental group students had a much greater increase in amount of learning than the control group, as evidenced by pre- versus posttest scores ($p<.05$). The experimental group increased their mean scores 30% from pre- to posttest, while the control group's scores increased 16% from pre- to posttest. Futhermore, in an individual item breakdown, it was found that in four of five areas of neurological assessment tested on the examination, there was a higher percentage of increase from pre- to posttest for the students utilizing the computer-assisted instruction program.