

Critical Thinking and Computer-Assisted Instruction

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Article:

Computer-assisted instruction (CAI) is a popular learning tool in schools of nursing. Studies show CAI is effective in learning complex information; there are mixed results about student attitude toward the use of this learning method.

CAI patient care simulations provide an opportunity for students to make clinical decisions without the anxiety experienced in a clinical setting or the risk of harm to clients. The investigators used CAI for one semester with 26 third year students as an adjunct to a clinical course in a baccalaureate nursing program. Student attitude and critical thinking skills were measured using the Allen's Attitude Toward Computer-Assisted Instructional Scale and the Watson-Glaser Critical Thinking Appraisal Form A, respectively.

The Allen's Attitude Toward Computer-Assisted Instructional Scale was administered pre and post CAI experience to the study group. The Watson-Glaser Critical Thinking Appraisal was given to both the students using CAI and to those using only traditional teaching methods.

The study group was required to complete a total of five theory related computer programs at a mastery level of 70%. Students indicated the addition of CAI a valuable, efficient, and useful adjunct to the clinical experience. However, they reported the experience to be rather impersonal and threatening. Critical thinking ability did not improve significantly during the semester.

One suggestion for future research would be development of a critical thinking instrument related specifically to nursing practice. A second recommendation would be to track critical thinking in relation to decision making throughout a whole curriculum by using the methodology of this study with a larger sample size. Such a process would ascertain where critical thinking is most facilitated in the curriculum.

Finally, further investigations of CAI in relation to critical thinking is needed because of changing demands of the health care consumer. The average consumer is no longer amenable to serving as a learning tool for students. Consumers are demanding a certain level of competence, even by students. This need for clinical preparation can be met by CAI. Computers are a valuable asset in allowing students to learn behaviors, such as critical thinking, which will last a lifetime.