

Research - R185

Poster

Abstract Title:

Application and evaluation of knowledge degradation related to Advanced Trauma Care for Nurses (ATCN®) course content: A preliminary study

Authors:

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Background & Purpose:

The Advanced Trauma Care for Nurses (ATCN®) course is designed for nurses interested in increasing their knowledge regarding the assessment and management of multiply injured trauma patients. To date, no studies have assessed participant's long-term knowledge retention or the frequency that ATCN knowledge is utilized by nurses post course. The aim of this study was to: 1) explore the frequency to which the ATCN content is used in practice; 2) determine whether the knowledge obtained from ATCN participants differs from those who have not taken ATCN, but who work in an acute care setting; and 3) determine the rate at which ATCN course material is forgotten (a) in general and (b) with or without rehearsal.

Study/Project Design:

Online cross-sectional survey administered to ATCN participants and control group of non-ATCN participants.

Setting:

Level 1 trauma centre with subjects from various trauma and non-trauma centers.

Sample:

Two cohorts: 1) nurses who have taken and passed ATCN at the host site; and, 2) nurses who have not taken ATCN and work in critical care, surgical wards or the emergency department.

Procedures:

All participants completed an online survey that included a series of demographic questions and a short review test of 15 clinical content questions of varying degrees of difficulty and spanning the ATCN course content. The questions, developed by the study team and guided by ATCN course objectives, reflected both the factual and application knowledge necessary to manage a traumatically injured patient. For participants who had taken ATCN, each test question was followed by an additional question regarding the frequency to which specific ATCN content had been used in practice since taking the course. Data was analysed using descriptive statistical analysis methods. Further sub-analysis of the ATCN taker cohort was also undertaken.

Findings/Results:

170 subjects enrolled in the study: 95 ATCN takers and 75 non-ATCN takers. The demographics between the two cohorts were similar in terms of the number of years the participants have been nursing and the frequency in which they care for a trauma patient as part of their work. Following each clinical question, ATCN takers were further asked to indicate if the question content reflected information they have applied in their practice since taking the course. The lowest frequency of clinical application of knowledge was differentiation of cardiac tamponade and tension pneumothorax with 13% indicating application of this knowledge in their clinical practice. The highest percentage of clinical application of knowledge was related to head injury management (68%). ATCN participants who work in critical care reported the highest degree of clinical application of ATCN knowledge. Mean and median test scores were consistent in the ATCN group regardless of when they had taken the course with the exception of those who had taken the course within 6 months of the survey. Frequency of caring for trauma patients did not have an impact on test scores.

Discussion/Conclusions/Implications:

Program evaluation is integral to education programs to ensure program goals/objectives are being met. ATCN course evaluations are consistently favorable but the applicability of ATCN content and knowledge retention over time was unknown. This study offered insights into ATCN content and clinical applicability to the nurses' workplace setting. The results of this study provide initial validation of ATCN content relevancy to actual clinical practice, knowledge enhancement and knowledge retention factors. The small sample size and single ATCN site surveyed limits generalizability of findings and further study with greater representative distribution of ATCN sites should be considered.