

45

EVALUATING THE EFFECTIVENESS OF A SIMULATION-BASED PERIPHERALLY INSERTED CENTRAL CATHETER (PICC) SKILLS TRAINING PROGRAM IN THE OUTPATIENT DEPARTMENT

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Background Following implementation of the Outpatient Intravenous Antibiotic Program (OIVAP) clinic in the outpatient department (OPD), nurses were dealing with more patients receiving long-term intravenous antibiotic therapy via a peripherally inserted central catheter (PICC) line. Only 20% of 150 OPD nurses were competently managing these patients. However, because of staffing issues and increased demand, more nurses were required to cover this clinic. This presented a challenge because most nurses had not performed this skill before. A simulation-based educational workshop was conducted by the Nursing Education Department to fill this gap. Simulation training has a well-known history in military and aviation industries, but is relatively new to nursing practice. The hospitals' Nursing Departmental policy on educational requirements requires nurses to perform annual competencies for skills that are likely to cause significant patient harm if done incorrectly, calling for nurses to keep their knowledge and skills valid. This study aims to evaluate the effectiveness of the simulation-based training program on the knowledge and skills of OPD nurses.

Methods 13 workshops were conducted for 109 participants over a period of 3 weeks. A pre-assessment knowledge questionnaire was distributed. The workshop covered theory and practical demonstrations using a central line simulator model, in a simulated clinical environment. A post-assessment knowledge questionnaire was then distributed for comparison.

Results Out of those sampled, the pre-assessment results showed that 78% had not performed the procedure of administering intravenous drug therapy via a PICC line at all. The mean knowledge scale was 0 out of 7, which indicated that their knowledge about the procedure was better than their practical experience. Post-assessment results indicated that 67.8% felt confident to perform the procedure in an actual clinical environment.

Conclusion Simulation-based educational interventions are an effective way to address skills gaps where large numbers of nurses need to be trained while minimizing the chances of patient harm. More confident nurses ease the burden on staffing levels ensuring more referrals. This gives an opportunity for fewer hospital admissions for procedures that can be safely done in an outpatient environment. Above all, patients are safe when nurses are confident in their care.

46

PATIENT SATISFACTION WITH THE CARE PROVIDED IN THE EMERGENCY DEPARTMENT AT A CARE CENTER IN SAUDI ARABIA

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Background Patient satisfaction is an important issue in the healthcare process and plays a crucial role in measuring the effectiveness of healthcare delivery. It is of absolute importance in quality assessment activities as its comprehensive analysis can highlight noble and problematic aspects of each hospital. This study aimed to assess the emergency department (ED) patient satisfaction in a care center in Saudi Arabia and to determine the factors affecting satisfaction.

Methods In this descriptive cross-sectional study, the sample was selected from 375 patients admitted to the ED of KAMC between December 2016 to September 2017. For each patient, a validated questionnaire was filled and collected by non-random convenient sampling in two phases: August/September and December/January.

Results In total, 375 patients were entered into the study. The mean score of overall satisfaction was 57.59 (8.69) (range 19–70). The domain that had the highest excellent score was admission (171, 45.8%), while the domain that scored highest in poor satisfaction was nurses' care (141, 37.6%). Overall satisfaction was mostly good (96, 50.8%). Those who had been hospitalized in the last 3 days prior to filling the questionnaire, and those who waited a longer time to see the doctor had significantly lower satisfaction ($p=0.007$ and $p<0.001$, respectively).

Conclusion Higher satisfaction levels were seen among patients who were treated in the main ED, admitted during morning shifts, who visited the ED during slow season (August/September), and were seen by the doctor with shorter waiting time. Patients were most satisfied with admission and least satisfied with nurses' care. Patient satisfaction reports can complement other sources of information about quality. Further research is recommended in order to measure specific aspects of medical care and how it has been provided.

47

ANTICOAGULATION VARIABILITY AS A PREDICTOR OF BLEEDING IN PATIENTS WITH MECHANICAL HEART VALVES

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Background Patients with mechanical heart valves require life-long anticoagulation with warfarin. Variability of anticoagulation is a major concern in such patients. Previously, we found that mechanical heart valve patients spent only 66% of their time within the therapeutic range (TTR). However, there is currently little data relating quality of anticoagulation to bleeding risk in patients with mechanical heart valve prostheses.

Methods This was a cross-sectional study of patients attending a Nurse-Led Heart Valve Anticoagulation Clinic. Data analyzed included patient demographics, comorbidities, and concurrent drug therapy to calculate HAS-BLED and ATRIA scores. International normalized ratio (INR) values were used to calculate time spent in the therapeutic range (TTR) by the Rosendaal Method. The relationship between variables was analyzed using linear correlation (Spearman Rho) and logistic regression as deemed appropriate. Data were analyzed using SPSS (SPSS for Windows), with $p<0.05$ considered significant.

Results The study cohort consisted of 260 patients with a mean age of 54 ± 15 years. The mean TTR was $66\pm 16\%$. 27