Effects of Educational Program on Wound Care Nurse Knowledge and application in Outpatient Practice Settings

Lu Ann Reed, DNP, CRRN, BC-RN, WCC, DWC; Donna Green PhD, MSN, RN, C-EFM; Deborah Schwytzer, DNP, RN-BC, CEN

ABSTRACT
Chronic lower-extremity wounds, which include diabetic foot ulcers and venous stasis ulcers, are responsible for $7 billion per year in annual health-care costs worldwide (Russum, Carter, Fife, DaVanzo, Haught, Nusgart, & Schwytzer, 2017). The prevalence of venous leg ulcers in individuals 65 and older is as high as 1–2% of the United States population (452,000–964,000 individuals) at an average cost of $1,500 per treatment, resulting in billions of dollars spent on this wound condition alone (Russum, et al., 2018). Additionally, diabetes mellitus (DM) and diabetic foot ulcers are an escalating health concern within the population. Estimates suggest that an approximate 15% of patients (or 54 million people) with DM will suffer from a diabetic foot ulcer during their lifetime. In their literature review, Vlaminck, Stoel, Leroi-Klijn, & Stuhlen (2014) identified that gaps of knowledge about the integration of evidence-based practice into the nursing care provided to patients with diabetic foot ulcers or venous stasis ulcers have a significant impact on the progression of wound healing and patients’ overall quality of life. To address this, my quality improvement project examines the effect of chronic wound education and documentation training on nurse knowledge of wound-care content, self-assessment of knowledge, and electronic health record (EHR) documentation practices. The PICOT question for this project asks: Among outpatient wound-care nurses, does formal education on diabetic foot ulcer and venous stasis ulcer standards of patient care impact nurse knowledge and application to documentation practices across 3 months?

The Plan, Do, Study, and Act (PDSA) model was utilized.

PLAN
PLAN: A Knowledge Self-Assessment: Chronic Wounds & Clinical Practice Survey to help identify training needs was developed and delivered.

An educational program was developed that was in alignment with evidence-based practice guidelines for vascular and diabetic foot ulcer care and documentation guidelines for the ulcers. A pre-test/post-test design was used to evaluate outcomes of this project related to nurse knowledge and an audit of documentation in the EHR.

DIM: education day for the wound-care nurses was developed that included:
b. Hands-on training for wound care assessment, intervention, and documentation.
c. Guides to support assessment and documentation were given to each participant

CHECK: Application of assessment and documentation for a wound-care case study in the EHR practice environment (i.e. sandbox for documentation practice)

ACT: Approximately 3 months following the delivery of the educational program, I met with each participant for a follow-up evaluation. Post-test 2 and Knowledge Self-Assessment: Chronic Wounds & Clinical Practice Survey was given. This phase of the project also included a one-to-one session for participant demonstration and evaluation of EHR documentation practices within the EHR Sandbox.

METHODS

Support and supervision for this project provided by my dissertation committee members at the University of Cincinnati.
Cahir: B.Gross PhD, MSN, RN, C-EFM
Members: Deborah Schwytzer, DNP, RN-BC, CEN

Contact information: reed@ucmail.uc.edu

ACKNOWLEDGEMENTS

FINDINGS RELATED TO BASELINE KNOWLEDGE
Knowledge Self-Assessment: Chronic Wounds & Clinical Practice Survey
Rate your current level of knowledge in assessing/performing:

- Leg Circumference
- Foot assessment including- Deformity, prior treatment
- Additional assessments of Dependent Rubor, dryness, and leg circumference
- Written Orders

PRE/POST TEST
The mean knowledge score on the pretest was 80 percentage points with a range of 70-90. We observed a 20 point increase on average from pre-intervention to post intervention. A 3 month follow up quiz showed continued retention of interventional education

FINDINGS

REFERENCES