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Teresa Cyrus  
St. Catherine University

Brenda Hall  
St. Catherine University

Rebecca Wenthold  
St. Catherine University

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Effectiveness of a Delirium Prevention Initiative on an Inpatient Neuroscience Unit

Teresa Cyrus, MSN, APRN, FNP-C; Rebecca Wenthold, MSN, RN, CCRN; Brenda Hall, BSN, RN, CNOR; Saint Catherine University, Saint Paul, MN
Lisa Tu, BSN, RN; Katie Hedquist, BSN, RN, CNRN; Elizabeth Ko Zub, MS, APRN-CNS, ACNP, CNRN, CCRN; Abbott Northwestern Hospital, Minneapolis, MN
Patricia Finch Guthrie, PhD, RN; Jean Omodt, DPT, MHS PT; Saint Catherine University, Saint Paul, MN

Introduction

• Neuroscience patients are at an increased risk for developing delirium and there is a paucity of evidence supporting the effectiveness of prevention strategies within this patient population.
• An estimated 30-40% of cases of delirium are preventable (Fong et al., 2009) with strong evidence to support multicomponent non-pharmacological interventions (Abraha et al., 2015).
• Multicomponent, non-pharmacological interventions may include frequent orientation, early mobilization, minimizing psychoactive medications, promoting sleep-wake cycles, providing sensory adaptive equipment (glasses and aids), and preventing dehydration (Kalish et al., 2014).
• Other effective strategies to prevent delirium include the use of trained volunteers to implement multicomponent interventions for at risk patients (Yue et al., 2014), and health care staff education (Fong et al., 2009; Abraha et al., 2015).

Objectives

• Increase nurses’ knowledge of delirium prevention and improve their confidence in identifying delirium
• Design a volunteer program to assist health care staff in preventing delirium
• Establish an ongoing monitoring approach for ensuring continued improvement in preventing delirium

Sample and Setting

Sample
• 46-bed neuroscience unit at a 631 staffed bed quaternary hospital located in upper Midwest
• 636 patients in sample (304 Control, 333 Intervention)

Setting
• The sample consisted of inpatient, outpatient, and observation status patients with a provider coded diagnosis of delirium who spent less than 24 hours in the ICU.

Methods

Assessing Knowledge and Confidence/Delirium Education
• Baseline knowledge and confidence was obtained by having nurses complete a survey
• 18 Delirium education sessions were presented to nurses, topics included:
  -Definition of delirium
  -Predisposing and precipitating risk factors
  -Symptoms of hypoxic, hyperactive, and mixed delirium
  -Delirium prevention intervention strategies.
• Immediately following the education session, nurses completed an identical post-survey
• Patient and family education handouts updated

Results

• 80% of nurses attended delirium education
• Nursing Confidence Increased in Identifying Delirium on Post-Survey (p < 0.005)
• Nursing knowledge increased after the education session, when compared to pretest (p < .0005)
• Nurses rated preventing delirium as important on pre-test and there was not a statistical difference on post-test (p = .317)
• Nurses believed delirium screening to be part of their role on pretest and there was not a statistical difference on post-test (p = .880)

Conclusions/Nursing Implications

• Delirium education was successful in increasing the nurses’ knowledge of and confidence in preventing and treating delirium.
• Training specific volunteers in delirium prevention strategies was found to be successful in implementing non-pharmacological interventions for at-risk patients in order to support nursing staff.
• Further research into delirium prevention and early recognition may be helpful to identify opportunities and challenges specific to the neuroscience population.
• Longer measurement periods with consistent volunteer visits are needed to determine the true effect of these interventions on delirium rates.

Selected References


An Interprofessional Education-Based Clinical Scholar Program Collaborative Project