

Stephanie Barendt, DNP(s), MSN, NE-BC; John Hudson PhD, RN, NEA-BC
Old Dominion University, Norfolk, Virginia

Background/Significance

- Nearly one third of delirium cases can be prevented and nurses, having 24/7 bedside care, can play an essential part in reducing the risk factors contributing to the onset of delirium (Bennett, 2019).
- The lack of knowledge and nursing training and absence of effective and feasible delirium screening tools for units outside of the Intensive Care Units must be addressed to reduce the incidence and duration of delirium among patients in the hospital

Purpose

The purpose of this study was to determine the effect the use of the non-intensive care unit confusion assessment method (non-ICU CAM) as an early screening tool for delirium would have on the nursing practice of medical surgical nurses; including their knowledge, attitude, perceived social norms, perceived self-efficacy, and intention.

Methods

- This quasi-experimental study focused on early screening and prevention training of inpatient nurses caring for adult inpatients to proactively reduce episodes of delirium. The training included an educational video on how to perform the non-ICU CAM assessment, 4 scenarios to test knowledge on scoring patient symptoms and presentation within the non-ICU CAM, and techniques for reducing delirium if patient is positive.
- All inpatient nurses, outside of the Emergency Department and Critical Care Units, were asked to participate in a pre-intervention questionnaire, receive the intervention of a delirium education and screening and utilization of the early screening tool in the electronic medical record (EMR) platform, and post-intervention questionnaire. The inpatient nursing groups consisted of the following specialties: Medical/Surgical, Telemetry, and Observation Units.

Sample Demographics	Study Groups (n=13,512)	
	N	%
Age		
Range (21-64); Mean 35.02		
Nursing Education		
ADN	9	13.8%
BSN	49	74.2%
MSN	5	7.6%
DNP	1	1.5%
Unit Specialty		
Observation	13	19.7%
Medical Surgical	40	60.6%
Telemetry	13	19.7%
Years of Nursing Experience		
Range (0-42); Mean 7.87		

Acknowledgements

Kathi Zarubi DNP, RN, Nurse Executive & DNP Preceptor
Research was approved by Old Dominion University IRB & HonorHealth

Results

RQ1: What is the baseline knowledge, attitudes, behaviors, beliefs, perceived social norms (PSN), perceived self-efficacy (PSE), and intentions of the nurses caring for patients at risk for delirium?

	N	Min	Max	Mean	Std.Dev
Knowledge	66	13	19	16.788	1.0305
Attitude	66	5	15	10.439	1.9226
Behavior	66	5	20	15.833	2.6111
Beliefs	66	24	35	29.424	2.3407
Perceived Social Norm (PSN)	66	4	15	9.379	2.6415
Perceived Self Efficacy (PSE)	66	10	29	19.47	3.8838
Intention	65	7	31	15.985	5.6582

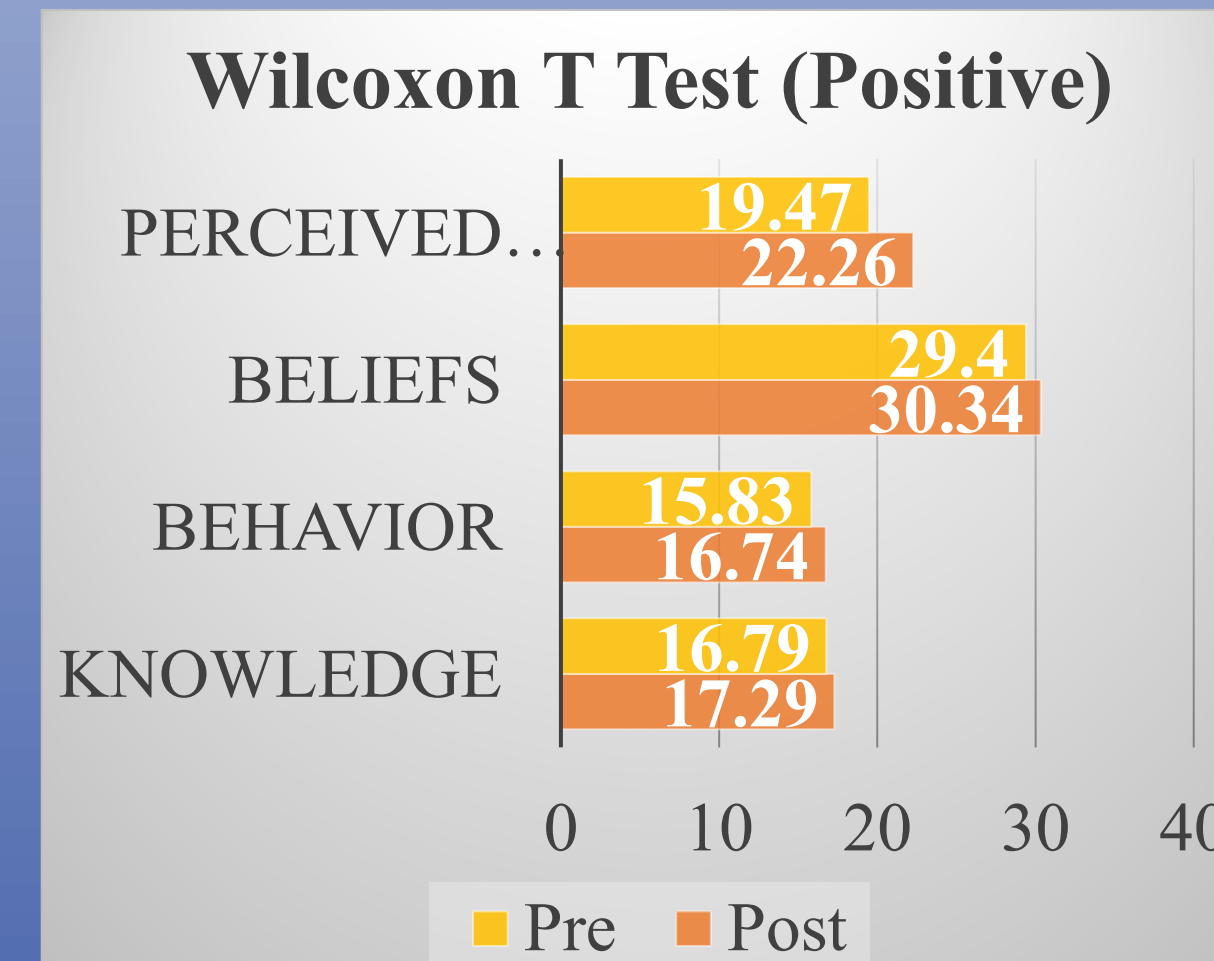
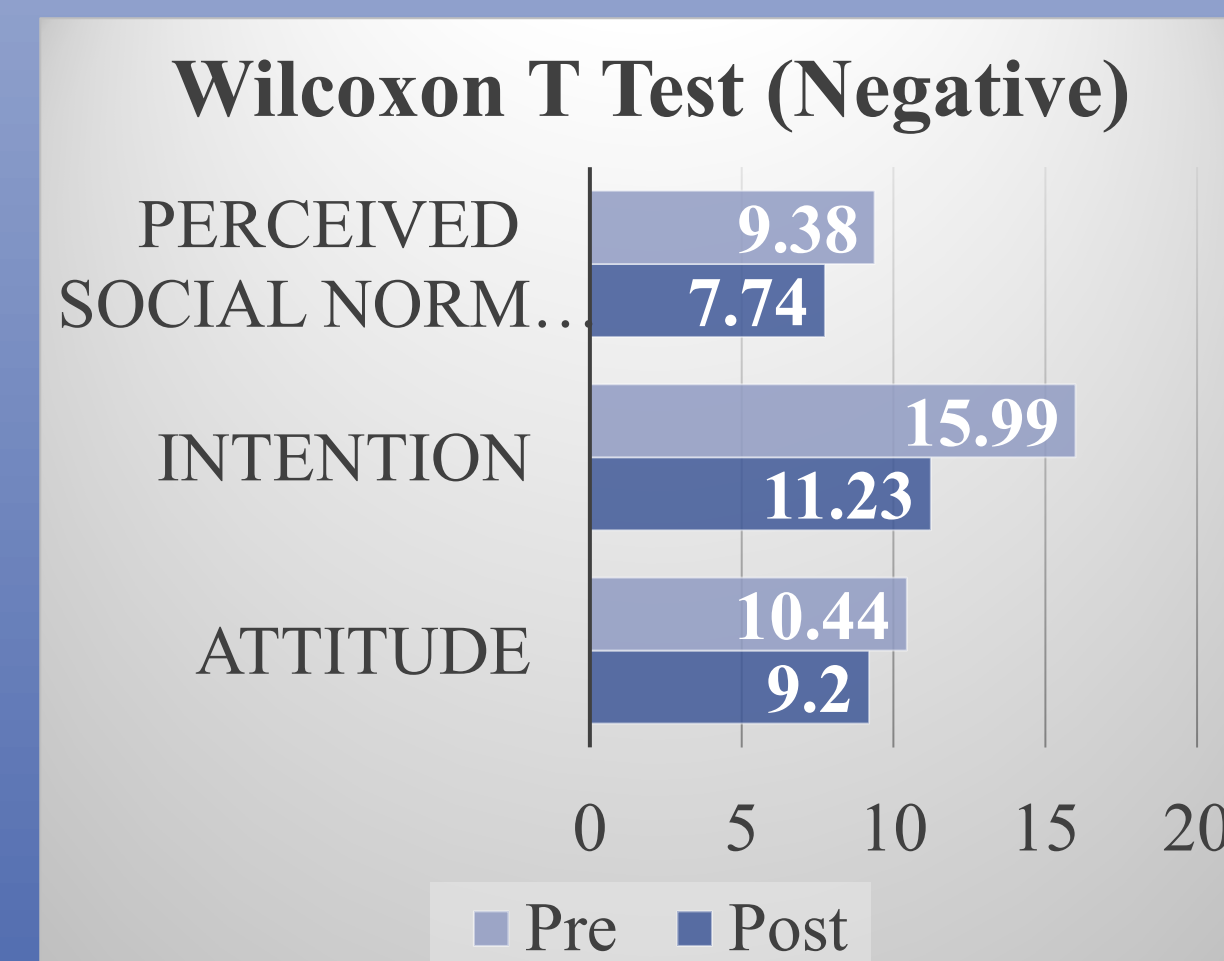
**The Likert scale was adjusted between the categories to ensure the participants' answer closely reflected their intended responses. Attitude, PSN, Intention= the higher score is the more negative; Behavior, Belief, PSE= the higher the score the more positive

RQ2: Are there differences in the knowledge, attitudes, behaviors, beliefs, PSN, PSE, and intentions within nursing units or demographic factors?

		Age	Unit	Years of Exp.
Knowledge (Pre)	Correlation Coefficient	0.032	-0.049	0.035
	Sig. (2-tailed)	0.799	0.695	0.795
	N	65	66	57
Attitude (Pre)	Correlation Coefficient	-0.374	-0.025	-0.512
	Sig. (2-tailed)	0.002	0.843	<.001
	N	65	66	57
Behavior (Pre)	Correlation Coefficient	-0.115	0.272	-0.031
	Sig. (2-tailed)	0.363	0.027	0.821
	N	65	66	57
Belief (Pre)	Correlation Coefficient	-0.206	0.079	-0.122
	Sig. (2-tailed)	0.1	0.526	0.366
	N	65	66	57
PSN (Pre)	Correlation Coefficient	-0.066	-0.018	-0.049
	Sig. (2-tailed)	0.601	0.887	0.717
	N	65	66	57
PSE (Pre)	Correlation Coefficient	-0.243	-0.004	0.038
	Sig. (2-tailed)	0.051	0.972	0.777
	N	65	66	57
Intention	Correlation Coefficient	0.151	0.043	0.033
	Sig. (2-tailed)	0.234	0.735	0.808
	N	64	65	57

RQ3: Do nurses' attitudes, knowledge, behavior, beliefs, PSN, PSE, and/or intentions change after training?

	Pre	Post	Sig
Knowledge	16.79 (1.03)	17.29 (.799)	0.048
Attitude	10.44 (1.9)	9.2 (2.26)	0.012
Behavior	15.83 (2.6)	16.74 (2.25)	0.054
Beliefs	29.4 (2.3)	30.34 (2.5)	0.002
Perceived Social Norm (PSN)	9.38 (2.64)	7.74 (2.16)	0.02
Perceived Self Efficacy (PSE)	19.47 (3.88)	22.26 (4.17)	0.007
Intention	15.99 (5.66)	11.23 (2.6)	0.006



Findings

- Most participants scored 85% on the knowledge quiz.
- Most selections have a positive attitude toward managing patients with delirium; 26% of participants indicated they would like to have further guidance.
- Discrepancy in the belief that confusion predominately occurs in the elderly, that the participants have a clear understanding for the reason a patient is agitated and if it is necessary to use physical limitations for patients with delirium.

Findings

There does not appear to be any correlation between knowledge of delirium with the nurses' age, unit of specialty or years of experience. Attitude is negatively associated with the nurses' age and years of experience. The behavior towards delirium was positively associated with the unit specialty, and perceived self-efficacy was negatively correlated to age; these correlations are statistically significant using the Spearman rank-order correlation coefficient, since the alpha levels are less than .05.

Findings

The analysis of the differences between pre- and post- intervention surveys was assessed by the Wilcoxon Sign-Ranked Test. All categories (outside of Behavior) demonstrated that the use of the non-ICU Confusion Assessment Method and correlating education had a statistically significant effect on the overall practice of nurses managing delirium. The largest impact was found on the improvement in the nurses' beliefs within their own practice and their attitudes in managing the care of patients with delirium.

RQ4: Are there differences after the early screening and prevention training in the knowledge, attitudes, behaviors, beliefs, PSN, PSE, and intentions within different nursing unit specialties?

		Age	Unit	Years of Exp.
Knowledge (Post)	Correlation Coefficient	0.153	-0.052	0.171
	Sig. (2-tailed)	0.496	0.819	0.496
	N	22	22	18
Attitude (Post)	Correlation Coefficient	-0.125	-0.52	-0.17
	Sig. (2-tailed)	0.578	0.013	0.499
	N	22	22	18
Behavior (Post)	Correlation Coefficient	0.16	0.208	0.481
	Sig. (2-tailed)	0.476	0.354	0.043
	N	22	22	18
Belief (Post)	Correlation Coefficient	-0.085	-0.014	-0.061
	Sig. (2-tailed)	0.706	0.95	0.811
	N	22	22	18
PSN (Post)	Correlation Coefficient	-0.638	-0.102	-0.567
	Sig. (2-tailed)	0.001	0.653	0.014
	N	22	22	18
PSE (Post)	Correlation Coefficient	0.123	0.109	0.464
	Sig. (2-tailed)	0.585	0.63	0.052
	N	22	22	18
Intention (Post)	Correlation Coefficient	-0.288	0.01	-0.178
	Sig. (2-tailed)	0.193	0.965	0.481
	N	22	22	18

Findings

Most of the correlations found in the baseline data were unchanged, however The behavior towards delirium was positively associated with the years of experience, and perceived social norm was negatively correlated to age and years of experience.

Conclusions

After a month of multimodal training for the nursing staff, there was statistically significant differences between the results of the pre- and post-intervention surveys. Overall, this study determined that the training and use of non-ICU CAM for had a positive impact on the nursing staff in relation to their ability to manage overall identification of delirium in their patients and management of their care. This study aimed to address two major gaps in what literature suggests as evidence-based practice and what is the current nursing workflows: a gap in nurse knowledge and a gap in clinical practice. Standard work within intensive care units for the detection and prevention of delirium has been extensively studied and implemented. The literature on the impact delirium screening has on nurses was exclusively found to be focused on intensive care units as and there is an opportunity to explore the prevention of delirium in other departments in the hospital setting.

Limitations

There were some limitations to this study which included the reduced number of participants that took the training and completed the pre- and post-intervention surveys and the lack of previous research on the impact the Confusion Assessment Method has on units outside of the intensive care units. Further research and study are indicated to assess the impact the use of the early screening will have on the patients in relation to length of stay, mortality/morbidity rates, and satisfaction.



Setting

HonorHealth John C. Lincoln Medical Center. 258 bed, level 1 trauma designated hospital in Phoenix, Arizona.