

TEAMWORC– Teamwork is an Essential Aspect of Managing Wounds and their Outcomes in Rural Communities

S. Ashley Alford, MSN, APRN, FNP–C, AT–C & Krystal Canady, DNP, APRN, FNP–C

INTRODUCTION

Approximately 23% of all patients in hospital facilities are impacted by pressure injuries (Moore et al., 2014). While the impact of these injuries on patients' quality of life is significant, the financial burden is also noteworthy, as the cost of pressure injuries has become a multi-billion dollar malady worldwide (Jarbrink et al., 2017). With the wealth of complications associated with pressure injuries, timely and appropriate assessment and management can dramatically impact patient outcomes as well as the cost associated with these injuries. Larger facilities have begun employing wound care specialists, in order to assess and manage patients affected by pressure injuries. This is not feasible for rural hospitals caring for a smaller patient population. Therefore, the healthcare team's knowledge regarding pressure injuries has the potential to greatly impact patient outcomes.

PURPOSE

The purpose of this study was to determine the effectiveness of implementing an online, education-based module on pressure injury (assessment, documentation, and management) knowledge of patient care staff members (RN, LPN, CNA, and PCT) at a rural Alabama hospital that does not employ wound care specialists.

Research Questions:

- Are nurses (RNs and LPNs) knowledgeable of current, Evidence Based practices regarding wound assessment and management?
- Do nursing assistants (CNAs and PCTs) recognize signs of skin breakdown and stage 1 pressure ulcers?
- Does knowledge regarding pressure injury assessment and management improve with a one time educational module?
- Do patient care staff members' attitudes impact knowledge outcomes when a wound-based educational module is administered?

METHODS

This study utilized an online module from a national, hospital-based, educational system to educate patient-care staff members (RN, LPN, CNA, and PCT) on pressure injury recognition, assessment, documentation, and management through the implementation of a pre- and post-test format. Participation was extended to 55 patient-care staff members employed at a rural, community hospital in Alabama. The module reported current, evidence-based practices regarding pressure injury assessment, documentation, and management. A survey, created by the National Pressure Ulcer Advisory Panel (NPUAP) was also included to assess staff members' attitudes regarding prevention of pressure injuries. The entire process was designed to take approximately one hour.

RESULTS

- An Anova was conducted and demonstrated that there was no significant difference in pre-test scores between the groups (RN, LPN, CNA, and PCT), $F(3, 42) = .62, p > .05$.
- An Anova was conducted revealing a significant difference in post-test scores by roles, $F(3, 39) = 3.62, p < .05$.
- A one tailed t-test was conducted and revealed the post-test scores were significantly higher than those on the pre-test, $t(42) = -2.07, p < 0.05$. (*below).
- Impact of attitude could not be determined.

	Pretest	Posttest
Mean	5.11627907	5.697674419
Variance	2.390919158	4.358803987
Observations	43	43
Pearson Correlation	0.520050281	
Hypothesized Mean Difference	0	
Df	42	
t Stat	-2.070027703	
P(T<=t) one-tail	0.022317811	
t Critical one-tail	1.681952357	
P(T<=t) two-tail	0.044635622	
t Critical two-tail	2.018081703	

(*Paired Two Sample T-test for pre- and post-test results)

LIMITATIONS

- Too few number of questions on the pre- & post-test.
- Reliance on the Education Department at the hospital for distribution of the survey, questionnaires, educational module, and pre- and post-test, as well as the collection of data.
- The pre-test, educational module, and post-test were completed in succession.
- No further post-test analysis to determine retention of knowledge gained from the educational module.
- Correlation between attitude and outcomes could not be ascertained.



CONCLUSIONS

- Nurses (RNs & LPNs) were found to have insufficient knowledge related to pressure injury recognition, assessment, documentation, and management prior to participation in this study.
- There was no difference in pre-test knowledge between nurses and nurses' assistants (CNAs & PCTs). However, a significant difference in post-test knowledge was identified between these two groups.

IMPLICATIONS

- Routine pressure injury education of all patient care staff members is an important aspect in ensuring optimal outcomes for patients affected by, and at risk of developing, pressure injuries.
- Pressure injury education should include nurses' assistants. This will enable them to recognize and report pressure injuries early, thereby assisting with optimization of outcomes.
- Additional research should be conducted to develop a universal wound assessment and management tool.

REFERENCES

1. National Pressure Ulcer Advisory Panel (2018). Retrieved from: www.npuap.org
2. Moore, Z., Butcher, G., Corbett, L. Q., et al. (2014). AAWC, AWMA, EWA Position Paper: Managing wounds as a team. *Journal of Wound Care*, 23(S Suppl.): S1-S38.
3. Jarbrink, K., Ni, G., Sonnergr, H., Schmidtchen, A., Pang, C., Baipai, R., & Car, J. (2017, January 24). The humanistic and economic burden of chronic wounds: a protocol for systematic review. *Systematic Reviews*, 6(15). Retrieved from: <https://doi.org/10.1186/s13643-016-0400-8>
4. Baernholdt, M., Hinton, I. D., Yan, G., Xin, W., Cramer, E., & Dunton, N. (2017, May). A national comparison of rural/urban pressure ulcer and fall rates. *The Online Journal of Issues in Nursing*, 22(2). Retrieved from <https://doi.org/10.3912/OJIN.Vol22No02PPT60>
5. Ferreira, A. M., Rigotti, M. A., Barcelos, L. S., Simao, C. M., Ferreira, D. N. & Goncalves, R. Q. (2014, July/September). Knowledge and practice of nurses about care for patients with wounds. *Journal of Research Fundamental Care Online*, 6(3), 1178-1190. Retrieved from: <https://doi.org/10.9789/2175-5361.2014v6n3p1178>
6. Beitz, J. M., Fey, J., & O'Brien, D. (1995, October). Perceived need for education vs actual knowledge of pressure ulcer care in a hospital nursing staff. *MEDSURG Nursing*, 7(5), 293-301.

This research was conducted in affiliation with Georgia College & State University.