

Guidelines to Improve Triage: Telephone Triage and the Emergency Pager System

Ashley Mierkowski, BSN, RN, DNP Student

INTRODUCTION

BACKGROUND

- At Northwestern Medical Group, non-medical dispatch staff use an emergency pager system to quickly route urgent patient calls to nurse telephone triage.
- The most common emergency pages are “extreme pain” and “high blood pressure” pages.
- The dispatchers create an encounter note in the electronic medical record describing the patient’s symptoms.
- The content of the encounter notes lacks the detail necessary for nurses to triage pages efficiently.

PURPOSE STATEMENT

The purpose of this quality improvement project was to determine if providing non-medical dispatch staff with education would increase the content of both pain and blood pressure encounter notes. A secondary goal was to improve nurse satisfaction levels from this improvement in encounter note content.

Outcomes and Objectives

- Significantly increase extreme pain encounter note content to include pain location, onset, and severity one-month postintervention
- Significantly increase high blood pressure encounter note content to include the blood pressure measurement one-month postintervention
- Determine if these changes would improve nurse satisfaction 6 weeks post intervention

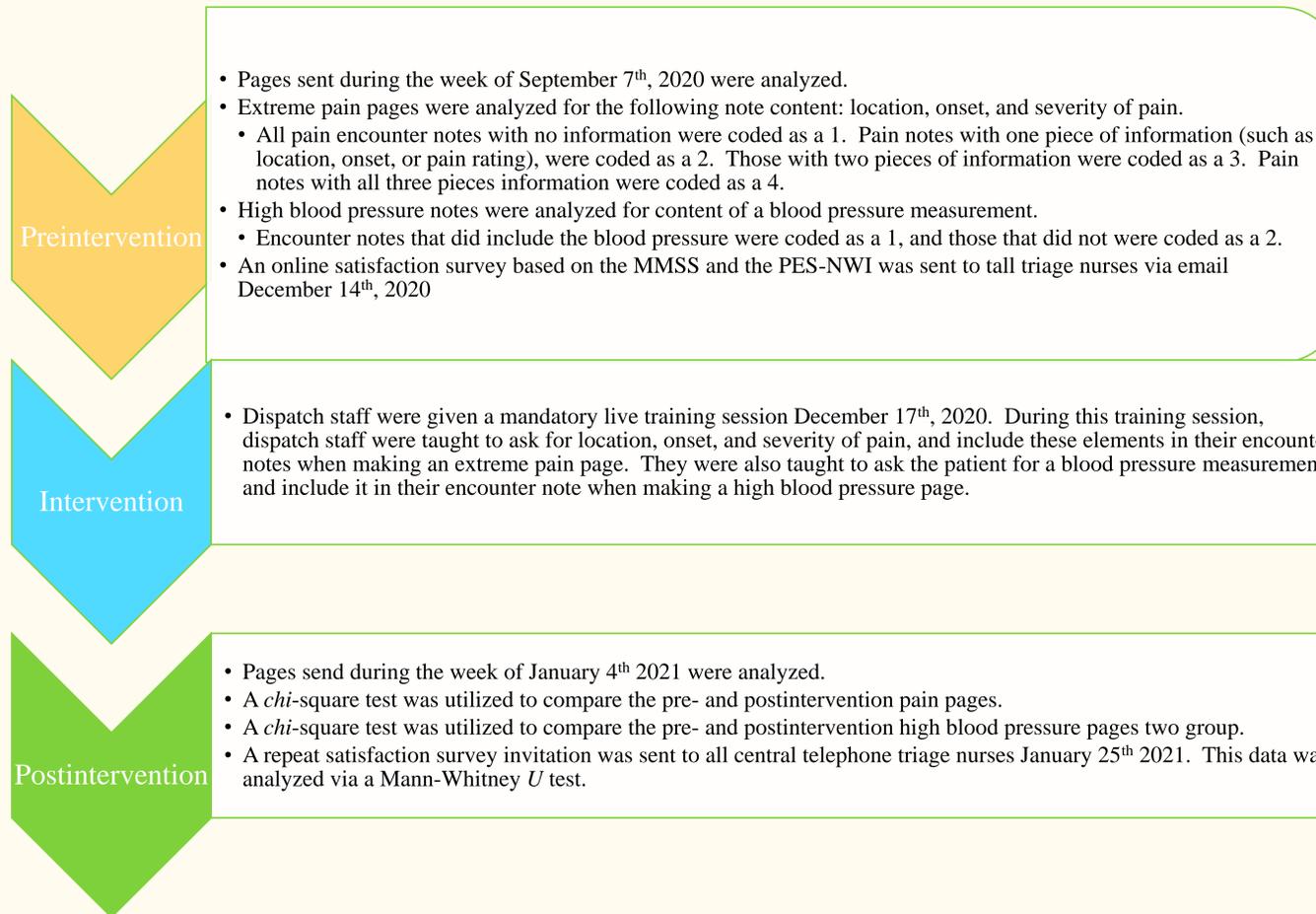
PICO:

Among non-medical dispatchers and telephone triage nurses (P), how does education on patient call processes and documentation (I), compared to current dispatch processes (C), change content of extreme pain and high blood pressure encounter notes, and nurse satisfaction (O)?

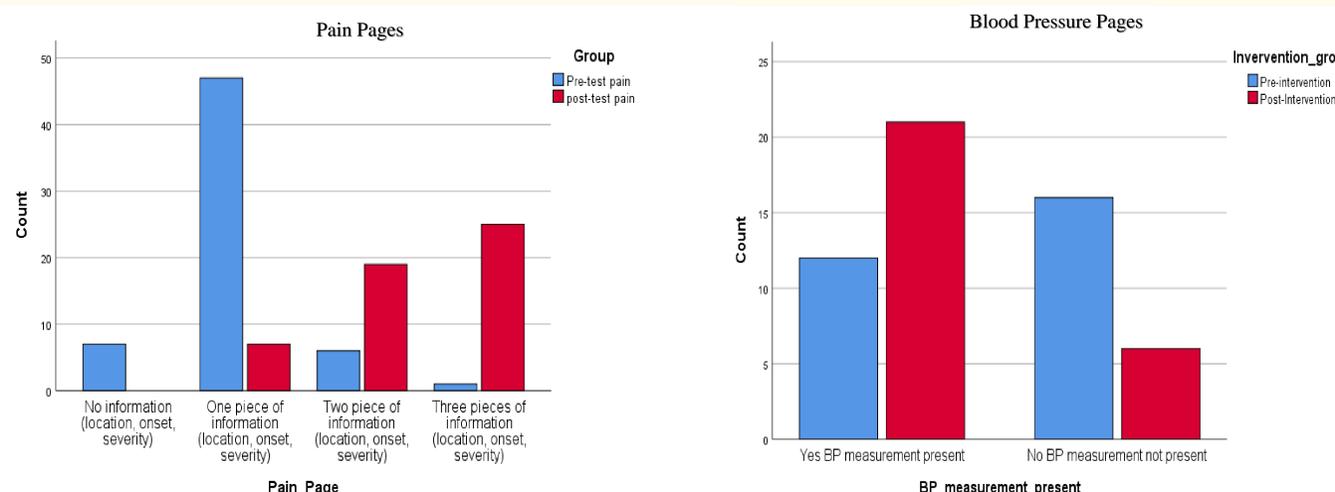
ACKNOWLEDGEMENTS

I would like to thank:
Miriam Butler, DNP, NP-C, FNP-BC, DNP Committee Chair
Julie Miller, DNP, MBA, FNP-BC, NEA-BC, CNOR(E), DNP Committee Member
Maria Hamakiotis, MSN, RN, NE-BC, DNP Committee Member
Jan Sherman, RN, NNP-BC, PhD, Statistics Consultant

MATERIALS AND METHODS



RESULTS



RESULTS

- Hypertension Emergency Page Encounter Note Content:** The relationship between the pre- and postintervention groups was significant ($p = 0.01$).
- Pain Emergency Page Encounter Note Content:** The relationship between the pre- and postintervention groups was significant ($p < .001$).
- Nurse Satisfaction:** For the nurse satisfaction scale, only question 2 “My stress level at work is at an acceptable level” indicated a significant improvement on the post survey ($p = 0.016$).
- Overall nurse satisfaction score (based on the sum of all items), was not significantly different postintervention ($p = .129$).

CONCLUSIONS

- Objective 1- Met:** Extreme pain encounter note content including pain location, onset, and severity increased significantly one-month postintervention
- Objective 2-Met:** High blood pressure encounter note content including the blood pressure measurement increased significantly one-month postintervention
- Objective 3-Partially Met:**
 - Overall nurse satisfaction did not significantly improve.
 - The survey item “My stress level at work is at an acceptable level” was the only item that significantly improved in the post-intervention survey.
 - Item 12, “If I receive two extreme pain emergency pages at once, the page or dispatch encounter note contains enough information for me to decide which page to return first” did not have a significant improvement postintervention.
 - Survey item 13, “If I receive two high blood pressure emergency pages at once, the page or dispatch encounter note contains enough information for me to decide which page to return first” also did not show significant improvement post-intervention.

REFERENCES

AAACN. (2018). *Scope and standards of practice for professional telehealth nursing* (6th ed).T. Angela, C. Murray, M. Mastal, & S. Clelland (Eds.). Pitman, NJ: American Academy of Ambulatory Care Nursing.

Bohm, K., and Kurland, L. (2018). The accuracy of medical dispatch- A systematic review. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, 26(1). 94. doi: 10.1186/s13049-018-0528-8

Faul, F., Erdfelder, E., Lang, A.G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191.

Holmstrom, I., and Hoglund, A. (2007). The faceless encounter: Ethical dilemmas in telephone nursing. *Journal of Clinical Nursing*, 16(10), 1865-71. doi: 10.1111/j.1365- 2702.2007.01839.x

Lee, S., Dahinten, S., and MacPhee, M. (2016). Psychometric evaluation of the McCloskey/Mueller satisfaction scale. *Japan Journal of Nursing Science*, 13(4), 487-95. doi: 10.1111/jjns.12128

North, F., and Varkey, P. (2010). Sow serious are the symptoms of callers to telephone triage call centre? *Journal of Telemedicine and Telecare*, 16(7), 383-8. doi:10.1258/jt.2010.091016

Polak, F., and Cruz, D. (2018). Sensitivity and specificity of the Manchester triage system in risk prioritization of patients with acute myocardial infarction who present with chest pain. *European Journal of Cardiovascular Nursing*, 17(7), 660-66. doi: 10.1177/147451511877402

Pure-Stephenson, R., and Thrasher, C. (2010). Nurses’ experiences with telephone triage and advice: A meta-ethnography. *Journal of Advanced Nursing*, 66(3), 482-94. doi:10.1111/j.1365-2648.2010.05275.x

Swiger, P., Patricia, P., Miltner, R., Raju, D., Breckenridge-Sproat, S., and Loan, L. (2017). The practice environment scale of the nursing work index: An updated review and recommendations for use. *International Journal of Nursing Studies*, 76, 76-84. doi: 10.1016/j.ijnurstu.2017.06.003

Torlen, K., Kurland, L., Castron, M., Olanders, K., and Bohm, K. (2017). A comparison of two emergency medical dispatch protocols with respect to accuracy. *Scandinavian Journal of Trauma, Resuscitations, and Emergency Medicine*, 25(1), 122. doi: 10.1186/s13049-017-0464-z