

A Feasibility Study of Scripting for Improved Pain Management in Outpatient Surgical Patients

Sigma Theta Tau International Honor Society of Nursing
28th International Nursing Research Congress
Dublin, Ireland

Lanell M. Bellury, PhD, RN, AOCNS, OCN
Georgia Baptist College of Nursing of Mercer University
Atlanta, Georgia, USA

Learning Objectives / COI

- At the end of this presentation the attendee should be able to:
 - Describe evidence in support of scripting in nursing.
 - List three considerations when conducting clinical research related to practice change.
- No relevant financial interests, sponsorship, commercial support, or conflicts of interest to disclose
- Author: Lanell M. Bellury, PhD, RN, AOCNS, OCN
- Georgia Baptist College of Nursing of Mercer University

Research Team

Karen Mullinax, MN, RN, CNM, CNOR

Judi Mozingo, BSN, RN, CNOR

Berta Dantzler, BSN, RN, CCRN

Nancy McGee, BSN, RN

Nurse Research Scholars

Emory Saint Joseph's Hospital

Atlanta, Georgia, USA

Pain Management and Patient Satisfaction

- Most patients experience moderate to severe pain postoperatively (Subramanian et al., 2014).
- Adequate management of pain is a challenging priority (Jakobsson, 2014).
- Patient satisfaction and the Triple Aim (Berwick, Nolan, & Whittington, 2008).

Nursing Practice and Pain Management

- Internationally, pain management is essential to patient care (Glowacki, 2015)
- Nurses are aware of the need for:
 - pain management
 - pain management education
 - consistent language about pain
- Some lack of awareness of best practices

Scripting

A script that is evidence-based may be a tool that can benefit the patient and the healthcare team responsible for the patient (Mustard, 2003).

- Communication and satisfaction tool (Zygourakis et al., 2014).
- Intentional rounding nursing literature (Meade et al., 2013; Harrington et al., 2013)
- Nutritional educational intervention resulted in changed nutrition beliefs and behaviors (Monterosa et al., 2013; Penny et al., 2005).
- Improved patient satisfaction with pain management (Alaouf et al., 2015).

The Purpose of the Study

- To explore the effect of scripted messages related to pain management on patient satisfaction with pain management and self-reported pain in outpatient surgical patients.
- **Research Question:**
 - Does RN scripting related to pain management impact postoperative pain and patient self-reported satisfaction with care in outpatient surgical patients?

Design of the Study

- A retrospective, quasi-experimental design compared cases before and after implementing a scripting intervention.
- This pilot study also examined feasibility and the effect size of the scripting intervention.

Sample and Setting

- Sample:
 - patients receiving outpatient surgery
- Inclusion criteria
 - discharged within 24 hours of surgical start time
- Exclusion criteria
 - chronic pain
 - pain blocks
- Setting:
 - 400 bed acute care hospital.
 - Outpatient Surgery Center: 4354 surgeries annually

Instruments

- A data extraction tool to facilitate data extraction from the EMR
 - Descriptive demographics
 - Patient/surgery characteristics
 - Post-discharge phone interview responses
- Data collection sheets were also used by the nurses in the two units where the script was delivered to document that scripting occurred with individual patients.

Scripting Intervention

“...we are very concerned with your pain control management during your stay with us. Although we may not be able to take all your pain away (because of your condition) we are going to work very hard with you to make sure you are as comfortable as possible.” (Press Ganey, 2014)

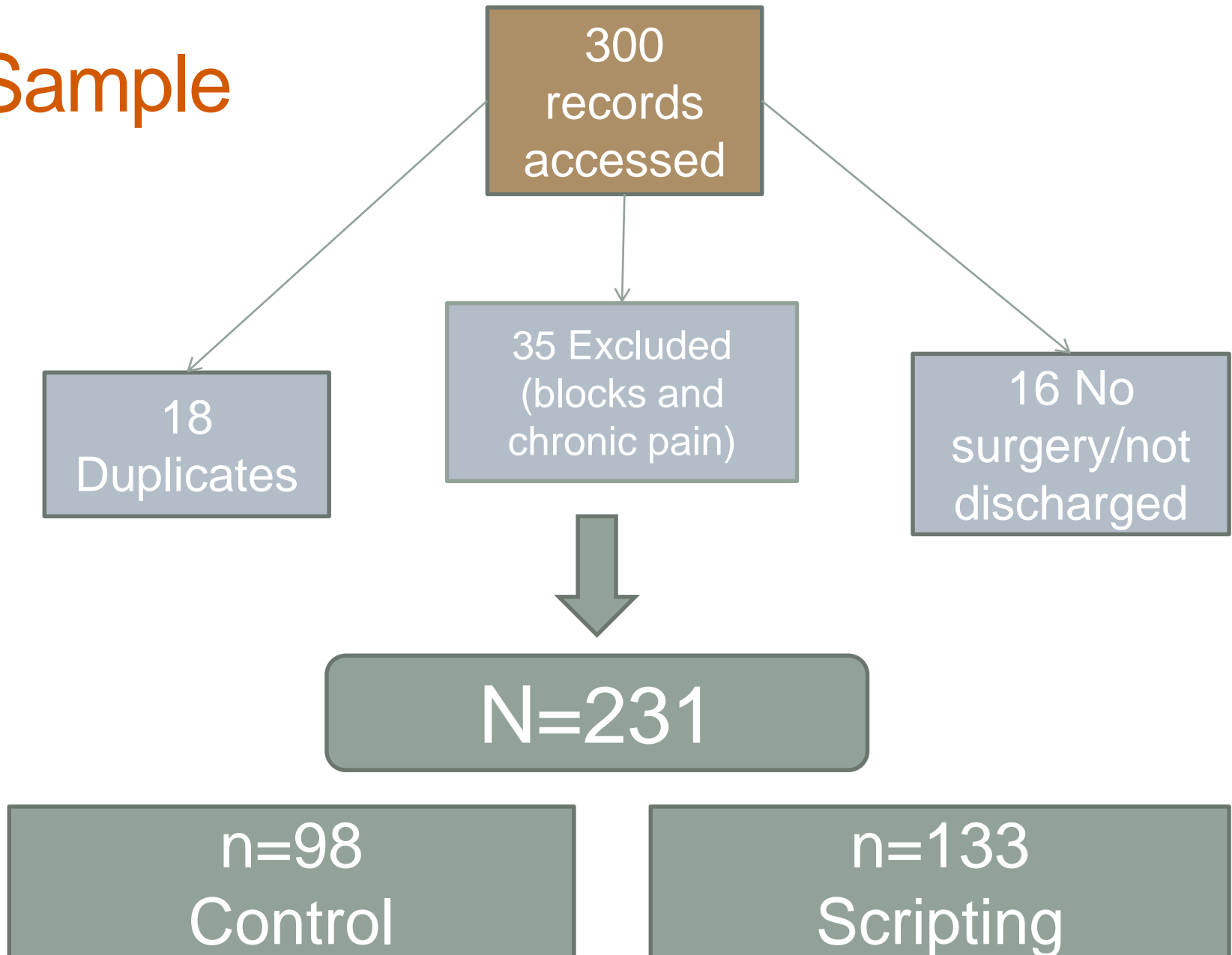
Human Subjects Protection

- Review and approval by the Nursing Research Committee, the organization's Institutional Review Board, and the university Institutional Review Board of the associated faculty.

Procedures

- RNs were trained to:
 - Deliver script related to pain management twice:
 - Preadmission testing
 - Prior to discharge from outpatient surgery.
 - Record patient information and confirmation of script delivered
- Fidelity of the intervention was monitored by PI and a team member
- 300 surgical patient records were accessed and data were extracted from the EMR

Sample



Results: Demographics


Characteristic	Total Sample (n=231)	Scripting Group (n=133)	Control Group (n=98)	X^2 or t (p -value)
Age M (SD)	57.5 (16.08)	57.8 (16.1)	57.3 (16.2)	-.234 (0.87)
Sex N(%)				
Male	144 (62.3)	83 (62.4)	61 (62.2)	.001 (0.98)
Female	87 (37.7)	50 (37.6)	37 (37.8)	
Race N(%)				
White	159 (68.8)	88 (66.2)	71 (72.4)	5.312 (0.26)
Black	44 (19.0)	30 (22.6)	14 (14.3)	
Asian	21 (9.1)	13 (9.8)	8 (8.2)	
Married N(%)				
Married	156 (67.5)	91(68.9)	65 (66.3)	1.599(0.66)
Single	52 (22.6)	31(23.5)	21 (21.4)	
Div/Widow	22 (9.7)	10 (7.6)	12 (12.2)	

Results: Surgery Characteristics

Characteristic	Total Sample (n=231)	Scripting Group (n=133)	Control Group (n=98)	χ^2 (p value)
Type of Anesthesia N(%)				2.438 (0.656)
General	207(89.6)	120(90.2)	87(88.8)	
Spinal	11(4.8)	6(4.5)	5(5.1)	
Conscious sedation / Local	12(5.2)	7(5.3)	5(5.1)	
Surgery Type N(%)				5.532 (0.595)
Urology	56(24.2)	30(22.6)	26(26.5)	
Colorectal	40(17.3)	21(15.8)	19(19.4)	
Laparoscopic / abdominal	30(13.0)	15(11.3)	15(15.3)	
Vascular	29(12.6)	18(13.5)	11(11.2)	
Hernia	26(11.3)	15(11.3)	11(11.2)	
Orthopedic	19(8.2)	12(9.0)	7(7.1)	
ENT	12(5.2)	7(5.3)	5(5.1)	
Other	19(8.2)	15(11.3)	4(4.1)	

Results: Intervention

Research Question: Does RN scripting related to pain management impact **postoperative pain** and patient self-reported satisfaction with care in outpatient surgical patients?

	Total n (%)	Scripting (n=77) n (%)	Control (n=40) n (%)	χ^2 (p-value)
Pain controlled at 48 hours post discharge	96 (82.1)	68 (58.1)	28 (23.9)	5.994 (.014)** 

Clinical significance

**Effect Size (Phi) = .223

0.1= small effect

0.3=moderate effect

0.5=large effect

Results: Intervention

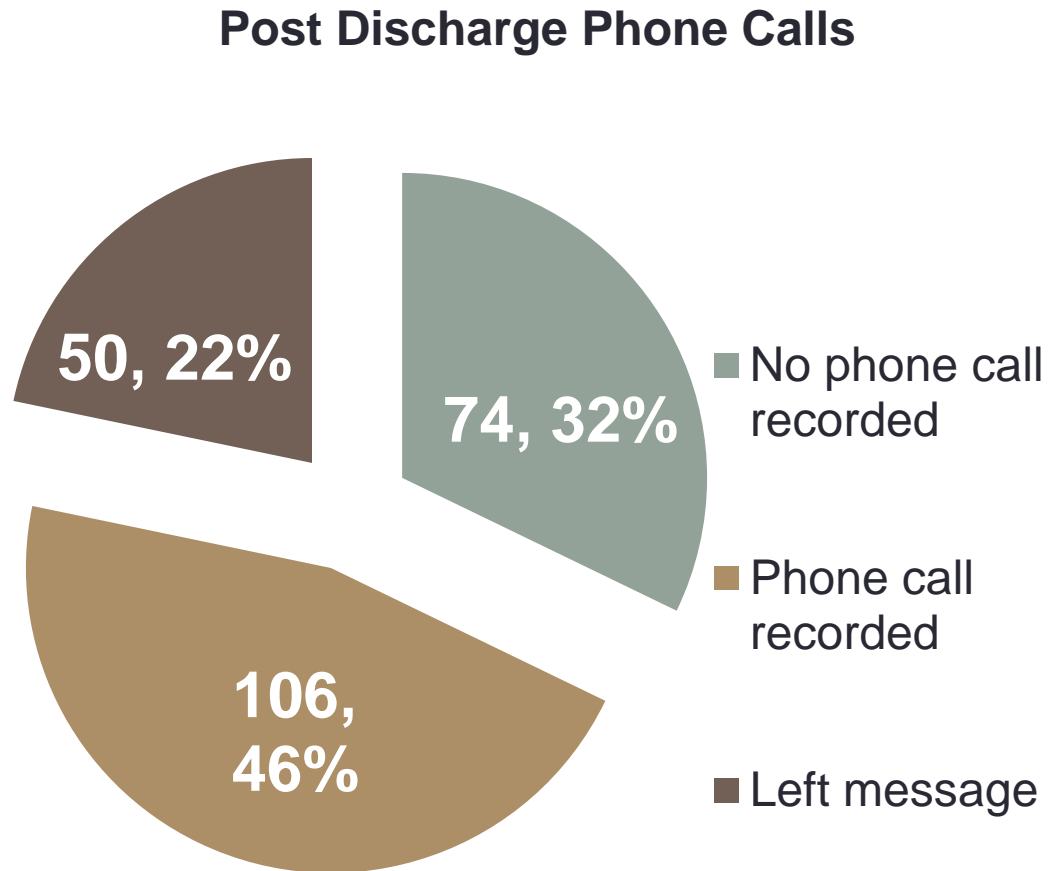
Research Question: Does RN scripting related to pain management impact patient self-reported **satisfaction** with postoperative pain management in outpatient surgical patients?

	Total n (%)	Scripting (n=77) n (%)	Control (n=40) n (%)	χ^2 (p value)
Satisfied with care at 48 hours post discharge (n=75)	68(90.7)	48(64.0)	20(26.7)	.540(0.463)

*2 cells (50%): expected count <5

Results: Feasibility

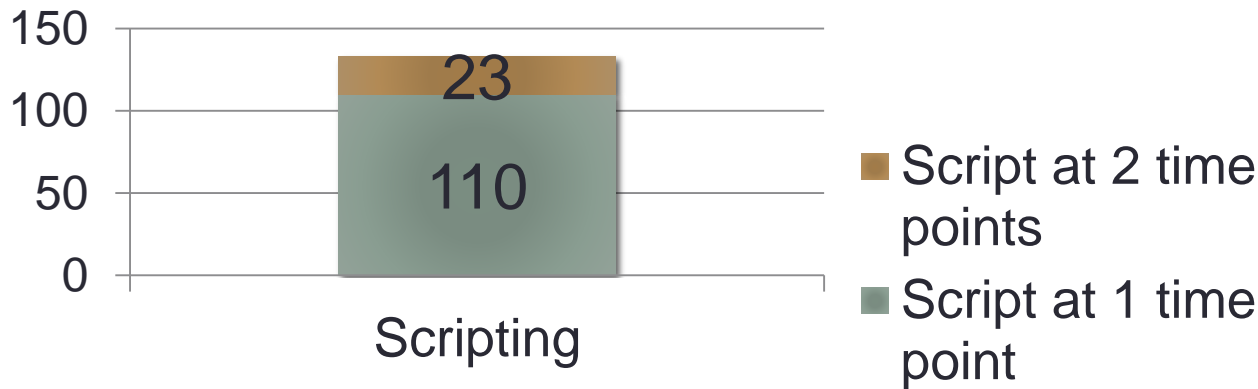
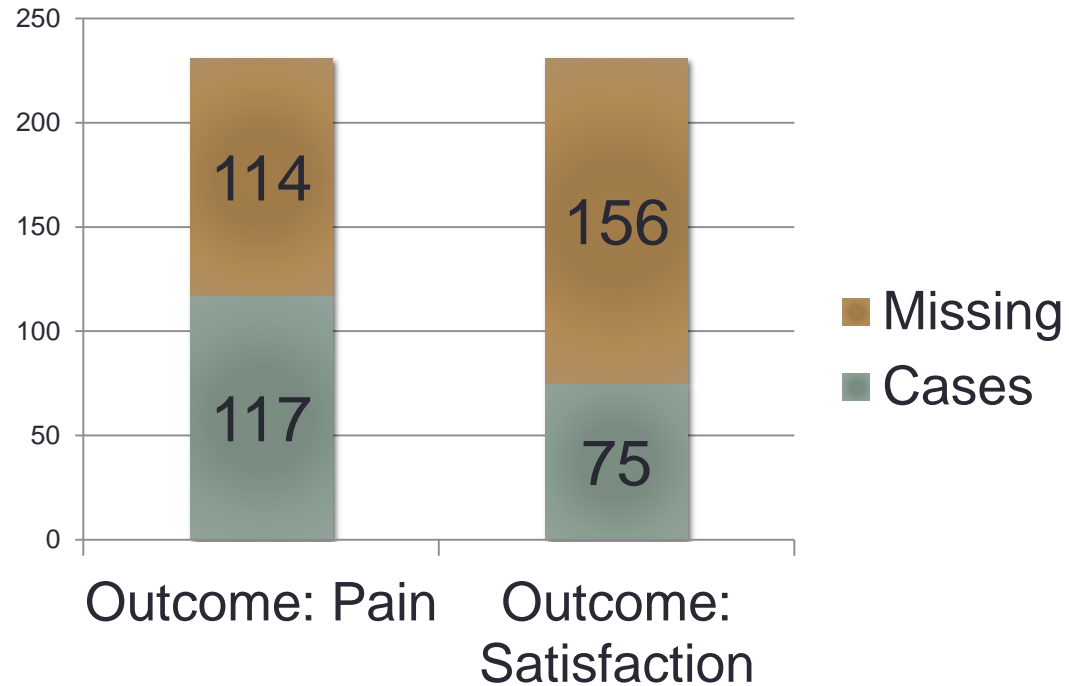
- Data collection
 - EMR extraction process and tool
 - Post op phone calls



Results: Feasibility

Missing data

- Script received
- Outcomes



Results: Feasibility and Practice Change

- Scripting feasibility
 - Sensitivity to timing of practice change and research studies in specialty nursing units
 - Monitoring
 - Repeat training
 - Nurse response to scripting

Recommendations

- Importance of feasibility testing
 - Test of intervention
 - Test of measures
 - Test of Data Extraction
- Complexity of Practice Change

References

- Alaloul, F., Williams, K., Myers, J., Jones, K., & Logsdon, M. (2015). Impact of a script-based communication intervention on patient satisfaction with pain management. *Pain Management Nursing*, 16(3), 321-327. doi:10.16/j.pmn.2014.08.008
- Berwick, D. M., Nolan, T. W., & Whittington, J. (2008). The triple aim: Care, health, and cost. *Health Affairs*, 27(3), 759-769.
- Glowacki, D. (2015). Effective pain management and improvements in patients' outcomes and satisfaction. *Critical Care Nurse*, 35(3), 33-41. doi: 10.4037/ccn.2015.440
- Jakobsson, J. G. (2014). Pain management in ambulatory surgery – A review. *Pharmaceuticals*, 7, 850-865. doi: 10.3390/ph7080850
- Meade, C.M., Bursell, A.L., & Ketelsen, L. (2006). Effects of nursing rounds: On Patient call light use, satisfaction, and safety. *American Journal of Nursing*, 106 (9), 58-70.

References

- Monterroso, E. C., Frongillo, E.A., Gonsalex de Cossio, T., Bonvecchio, A., Villanueva, M.A., Thrasher, J.F., & Rivera, J. A. (2013). Scripted messages delivered by nurses and radio changed beliefs, attitudes, intentions, and behaviors regarding infant and young child feeding in Mexico. *The Journal of Nutrition*, 143, 915-922. doi:10.3945/jn.112.169235.
- Penny, M.E., Creed-Kanashiro, H.M., Robert, R. C., Narro, M. R., Caulfield, L. E., & Black, R. E. (2005). Effectiveness of an educational intervention delivered through the health services to improve nutrition in children: A cluster-randomized controlled trial. *Lancet*, 365, 1863-1872. DOI: 10.1016/S0140-6736(05)66426-4

References

- Press Ganey. (2014) *HCAHPS Communication Guidelines*. Retrieved from <http://pressganey.com>
- Subramanian, P., Ramasamy, S., Ng, K.H., Chinna, K., and Rosli, R. (2014). Pain experience and satisfaction with postoperative pain control among surgical patients. *International Journal of Nursing Practice*. Doi:10,111/ijn.12363
- Zygorakis, C., Rolston, J., Treadway, J., Chang, S., & Kliot, M. (2014). What do hotels and hospitals have in common? How can we learn from the hotel industry to take better care of our patients? *Surgical Neurology International*. 5, S49-S54. doi:10.4103/2152-7806.128913



QUESTIONS?

Thank you!

Contact: Lanell M. Bellury
Bellury_LM@mercer.edu