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Moving Beyond Written Reinforcement: Using Video Clips to Reinforce Patient Education and Increase Caregiver Confidence

Mary A. Grady, DNP, RN, CNE, CHSE

Nursing, Lorain County Community College, Elyria, OH, USA

Purpose: Pediatric nurses frequently teach caregivers to care for their ill child in the home environment. When this care involves learning how to operate medical equipment and perform treatments and procedures, it can be very challenging and intimidating for a caregiver. In the majority of hospitals, caregivers are given written materials upon discharge to reinforce education received from a hospital nurse educator. While written materials alone are acceptable for many caregivers, they do not always meet the needs of a growing population of 21st century learners.

This study explored the use of video skill clips to teach caregivers to perform medical procedures required in the care of their children. The purpose was to determine from the caregiver's perspective the feasibility, acceptability and effectiveness of video skill clips to reinforce discharge education and if this method of instruction increased their knowledge and confidence levels.

Design and methods: This One- Group Pretest-Posttest study was conducted at a large Midwestern pediatric hospital in the United States where participants completed an investigator developed questionnaire before and after viewing the video skill clips. The study inclusion criteria were caregivers: (a) 18 years of age or older; (b) able to speak and understand English, and (c) with a child requiring a medical procedure at home. Exclusion criteria were caregivers (a) unable to complete the educational sessions; (b) who had received medical skill teaching or had watched the clips during previous admissions; (c) who were professional healthcare providers themselves. Data analysis consisted of paired t-test and descriptive statistics.

Results: The 100% of participants stated the clips were feasible and acceptable (n=40, M= 94.15, SD 6.84). Medical procedural knowledge and confidence levels significantly increased among participants after watching the video skill clips (p=<.001).

Conclusion and Practice Implications: These findings highlight a strong need for the use of video in patient education. These skill clips provide an opportunity to caregivers who learn best through visual and auditory methods, especially those with low literacy levels. They are a highly accessible and efficient tool for caregiver review of medical skills.

Title:

Moving Beyond Written Reinforcement: Using Video Clips to Reinforce Patient Education and Increase Caregiver Confidence

Keywords:

Caregiver Confidence, Pediatric Discharge Education and Video Skill Clips

References:

Atzema, C.L., Austin, P.C., Wu, L., Brzozowski, M., Feldman, M.J., McDonnell, M.

& Mazurik, L. (2013). Speak fast, use jargon, and don't repeat yourself: a

randomized trail assessing the effectiveness of online videos to supplement

- emergency department discharge instructions. PLoS One, 8 (11), e77057. doi:10.137/journal.pone.0077057.
- Barr, G.C., Rupp.V.A., Hamiliton, K.M., Worrilow, C.C. Reed, J.F. Friel, K.S., & Greenberg, M.R. (2013). Training mothers in infant cardiopulmonary resuscitation with an instructional DVD and manikin. *The Journal of the Osteopathic Association*, 113 (7), 538-545.
- Bloch, S.A. & Bloch, A.J. (2013). Using video discharge instructions as an adjunct to standard written instructions improved caregivers' understanding of their child's emergency department visit, plan, and follow –up. *Pediatric Emergency Care, 29* (6), 699-703.
- Davidson, J.E. (2010). Facilitated sensemaking: a strategy and new middle-range theory to support families of intensive care unit patients. *Critical Care Nurse*, 30(6), 28-39.
- Harrington, M. (2015). Health literacy in children with chronic kidney disease and their caregivers. *Nephrology Nursing Journal, 42* (1), 53.
- Heerman, W.J., Perrin, E.M., Yin, H.S., Sanders, L.M., Eden, S.K., Shintani, A.,...& Rothman, R.L. (2014). Health literacy and injury prevention behaviors among caregivers of infants. *American Journal of Preventive Medicine*, *46* (5), 449-456.
- Morrison, A.K., Schapria, M.M, Gorelick, M.H., Hoffmann, R.G., & Brousseau, D.C. (2014). Low caregiver health literacy is associated with higher pediatric emergency department use and nonurgent visits. *Academic Pediatrics*, *14* (3), 309-314.
- Mortensen, C. J., & Nicholson, A.M. (2015). The flipped classroom stimulates greater learning and is a modern 21st century approach to teaching today's undergraduates. [Abstract]. *Journal of Animal Science*, 93 (7), 3722-3731.

Oh, E., & Reeves, T.C. (2014). Generational differences and the integration of

technology in learning, instruction, and performance. In M. Spector (Ed.),

Handbook of research on educational communications and technology (pp. 819-

828). New York., NY: Springer.

Roehl, A., Reddy, S.L., & Shannon, G.J. (2013). The flipped classroom: An

opportunity to enagage millennial students through active learning strategies.

Journal of Family & Consumer Sciences, 105 (2), 44-49.

Abstract Summary:

This presentation explores results obtained from a study that used video skill clips to teach caregivers to perform medical procedures required in the care of their children. Data gathered from the caregiver's looked at the feasibility, acceptability and effectiveness of videos to increase confidence, knowledge and, reinforcement of discharge education.

Content Outline: I.Introduction

A. Use of video in patient education (Background & significance)

B. Introduce concept of using technology (iphones, ipads, & computers) to view video skill clips of procedures to reinforce discharge education.

II. Explore why this method of teaching is needed

- A. Parents and caregiver's falling into millennial generation
- 1.Grown up with technology and adept at this form of education
- 2.Enhanced visual and auditory learner
- B.Growing illiteracy rates
- 1. Share supporting data
- 2. Need for educational materials other than just written.
- C. Caregiver stress levels
- 1.Stress and retention of education

III.The Study

A.Share practice problem and purpose statement

1. Medical community likes idea of video, but do the caregivers?

- B. Research questions
- 1.Share questions
- 2. Obtained information from the pediatric caregiver's perspective if they thought the clips were feasible, acceptable, and effective and if they increased knowledge and confidence in skill performance.
- C. Theoretical Framework
- 1.Facilitated Sense-making theory
- D.Methods
- 1. One-Group Pretest-Postest
- E. Sample criteria
- 1.. Inclusion
- 2. Exclusion
- F. Measurement Tools
- 1. Demographic Sheet
- 2. Caregiver Video Skill Clip Survey
 - G. Study Procedure
 - 1. The Video Skill clips and how they were made
 - H. Analysis of results

IV. Conclusion

- 1. Results support method
- 2. Study limitations
- 3. Practice Implications for Video Skill Clip Usage

First Primary Presenting Author

Primary Presenting Author

Mary A. Grady, DNP, RN, CNE, CHSE
Lorain County Community College
Nursing
Associate Professor
Elyria OH
USA

Professional Experience: I have expertise in pediatric care and have been a nurse since 1982. I have worked with patients and their families at Arkansas Children's Hospital and Rainbow Babies and Children's hospital in Cleveland. I started to teach nursing 10 years ago and obtained my CNE (Certified

Nurse Educator). I have also been active in simulation and technology uses with education and obtained my CHSE (Certified Healthcare Simulation Educator). I have published a chapter on growth in development in the following textbook- Pediatric Nursing: Critical Components of Nursing Care: F.A. Davis Company.

Author Summary: Dr. Mary Grady is a nurse who has worked in the area of pediatrics for the past 35 years. She has worked at Arkansas Children's Hospital and Rainbow Babies and Children's hospital in Cleveland. She currently is an Associate Professor of Nursing at Lorain County Community College and Co-Coordinator of the LCCC Healthcare Simulation Center. She is a leader in innovative educational methods utilizing technology to enhance classroom learning for students and patient discharge education.