
 NICHE CONFERENCE


Effectiveness of Fall Prevention Multimedia Program on the Fall-Risk Awareness, Self-Efficacy, and Engagement in Fall Prevention Among Hospitalized Adults

Cleveland Clinic Florida
Weston, Florida

APRIL 21, 2017

PROGRAM PRESENTER:
Raquel Bryan, BSN, MPH, MHA, RN, C/N, Nursing Quality and Accreditation Coordinator



 


 NICHE CONFERENCE

Cleveland Clinic Florida

- 155 Bed Hospital
- 24-hour ER
- Regionally Ranked Number 1 hospital in Miami Fort Lauderdale Metro Area, Florida
- Pathway to Excellence, designated in 2014
- NICHE designated in 2016
- High Performing in Geriatrics and GI Surgery
- Part of the Cleveland Clinic network.

PROGRAM PRESENTER:
Raquel Bryan, BSN, MPH, MHA, RN, C/N, Nursing Quality and Accreditation Coordinator



 


 NICHE CONFERENCE

Who Cares About Fall Prevention?

1. Patients
2. Families
3. Communities
4. Health care organizations
5. Regulatory bodies

PROGRAM PRESENTER:
Raquel Bryan, BSN, MPH, MHA, RN, C/N, Nursing Quality and Accreditation Coordinator




NICHE CONFERENCE


Background

1. More than 95% of hip fractures are caused by falling
2. Falls are the most common cause of traumatic brain injuries (TBI).
3. Hospital costs from falls account for two-thirds of the total costs

(Center for Disease Control and Prevention, 2015)

PODUM PRESENTER:
 Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator




NICHE CONFERENCE


Cost of Hospital Falls

1. In 2015- \$31 Billion in Medicare alone
2. Each year, millions of people 65 years and older are treated in ED because of falls
3. 800,000 patients per year are hospitalized from a fall injury
4. Fall injuries are among the top 20 expensive medical conditions
5. Average hospital cost for a fall injury is over \$300,000

(CDC, 2015)

PODUM PRESENTER:
 Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator







NICHE CONFERENCE

Common Causes of Falls

1. Lower body weakness
2. Vitamin D deficiency (that is, not enough vitamin D in your system)
3. Difficulties with walking and balance
4. Use of medicines, such as tranquilizers, sedatives, or antidepressants
5. Vision problems
6. Foot pain or poor footwear
7. Home hazards or dangers such as broken or uneven steps, throw rugs or clutter that can be tripped over, and no handrails along stairs or in the bathroom

PODUM PRESENTER:
 Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator

Problem

1. Patient safety and reducing falls are top priorities in health care institutions
2. Hospital falls remain a major issue
3. Older adults often lack fall-risk awareness, falls self-efficacy, and engagement in fall prevention
4. Strategies are needed to increase fall-risk awareness, falls self-efficacy and engagement in fall prevention among hospitalized older adults

PODUM PRESENTER:
Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator



Literature Review

1. Impact of fall prevention programs
2. Falls are problematic
3. Lack of fall-risk awareness among hospitalized adults
4. Older adults' lack of falls self-efficacy
5. Lack of engagement among the elderly population in fall prevention
6. Potential gap in patient education in fall prevention

PODUM PRESENTER:
Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator



Three Variables

1. Fall risk-awareness
2. Falls Self-efficacy
3. Engagement

PODUM PRESENTER:
Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator





Fall Risk-Awareness

- Fall risk-awareness is defined as having perception of a "wide range of risk factors for falling of older adults including specific medication classes and chronic conditions" (Sadowski, Jones, Galdon, & Feeny, 2007, p. 336).
- Operationally, fall-risk awareness is measured using Fall Risk Awareness Questionnaire, that includes awareness on behavioral, environmental, medical, and knowledge questions on medications.

FORUM PRESENTER:
Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator





Falls Self-Efficacy

- Falls self-efficacy is an "important construct that pertains to beliefs concerning one's capabilities to organize and implement actions to modify their identified modifiable intrinsic and extrinsic risk factors" (Bandura, 1989, p. 729).
- The operational definition of falls self-efficacy is, "the confidence evaded by a person in performing common daily activities without falling" (Hellstrom, Vahlberg, Urell, & Emmter, 2009, p. 1136).

FORUM PRESENTER:
Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator






Engagement

- Engagement is defined as the degree of perception of the need to engage.
- The operational definition of patient engagement is the "degree to which a patient knows that one must engage actively in self-managing his disease, its consequences, and the corresponding health care, and the degree one feels able to collaborate with health care providers, maintain health functioning, and access appropriate and high quality care" (Hibbard, 2004, p. 1010).
- Patient Activation Measure was used to measure level of engagement.

FORUM PRESENTER:
Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator







NICHE CONFERENCE

Purpose

The primary purpose of the quasi-experimental study was to examine the impact of a multimedia program consisted of a fall prevention video presentation and nurse-led reinforcement program, on hospitalized adults' level of fall risk awareness, falls self-efficacy, and patient engagement in fall prevention in an acute setting.

PODUM PRESENTERS
 Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator






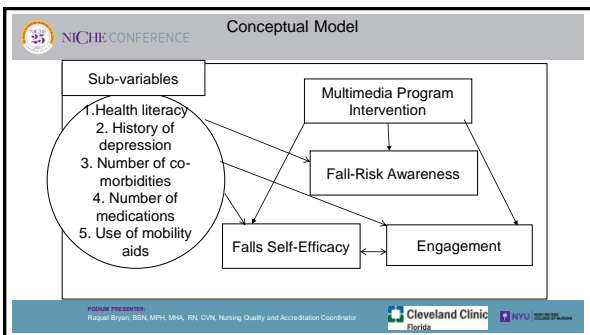

NICHE CONFERENCE


Research Questions

- Research Question 1**
What is the effect of a multimedia program on measures of fall-risk awareness, falls self-efficacy, and engagement for patients 65 years of age or older who are hospitalized in acute care setting?
- Research Question 2**
What is the relationship between measures of falls self-efficacy and engagement for patients 65 years of age or older who are hospitalized in acute care unit?
- Research Question 3**
What is the relationship between certain patient demographic factors (health literacy, history of depression, number of co-morbidities, number of medications, and use of mobility aids) and measures of fall-risk awareness, falls self-efficacy, and engagement in fall prevention.

PODUM PRESENTERS
 Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator







NICHE CONFERENCE

Methodology

Methodology: Quasi-Experimental
 One Group Pretest-Posttest Design

PODIUM PRESENTERS
 Raquel Bryan, BSN, MPH, MBA, RN, CNRN, Nursing Quality and Accreditation Coordinator








NICHE CONFERENCE

Sampling

1. Convenience sampling of hospitalized adults 65 years and older in the medical-surgical and telemetry units at Cleveland Clinic Florida
2. 60 cognitively-intact participants (screened using Mini-Cog Test)

PODIUM PRESENTERS
 Raquel Bryan, BSN, MPH, MBA, RN, CNRN, Nursing Quality and Accreditation Coordinator




NICHE CONFERENCE

Multimedia Program Intervention

Multimedia program consisted of:

1. Fall prevention video presentation-10-minute DVD presentation
2. Nurse-led reinforcement program-5 to 10 minute

PODIUM PRESENTERS
 Raquel Bryan, BSN, MPH, MBA, RN, CNRN, Nursing Quality and Accreditation Coordinator








NICHE CONFERENCE

Instruments

- Fall-risk Awareness Questionnaire
- Falls Efficacy Scale
- Patient Activation Measure

PODUM PRESENTERS
 Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator








NICHE CONFERENCE

Fall Risk Awareness Questionnaire

1. 22-item questionnaire on behavioral, environmental, medical, and drug information related to falls among older adults.
2. Range: 0-22

PODUM PRESENTERS
 Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator








NICHE CONFERENCE

Falls Efficacy Scale (FES): Variable: Falls Self-Efficacy

- 10-item questionnaire (reverse scale)
- Score per item starts with 1 for extreme confidence to 10 with no confidence.
- Reverse scale: Range is from 10-100. The higher the score, the lower the level of falls self-efficacy.

PODUM PRESENTERS
 Raquel Bryan, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator








NICHE CONFERENCE

Patient Activation Measure (PAM)- Variable: Engagement

- 3-item questionnaire that measures perception of the need and ability to engage.
- Range: 13-52

POSTER PRESENTER:
 Raquel Bryan, BSN, MPH, MBA, RN, CPH, Nursing Quality and Accreditation Coordinator








NICHE CONFERENCE

Data Analysis

1. Inferential Analysis
 - Paired sample t-tests
 - Independent t-tests
2. Correlation analysis-Pearson correlation



POSTER PRESENTER:
 Raquel Bryan, BSN, MPH, MBA, RN, CPH, Nursing Quality and Accreditation Coordinator






NICHE CONFERENCE

Demographic Variables		Data
Age	Range: 65-90	(M±SD) 73.3 ± 5.93
Gender	Male Female	n (%) 27 (45) 33 (55)
Level of Education	Graduate Partial degree Non-university Undergraduate High-school	n (%) 46 (76) 5 (8) 3 (5) 2 (3) 4 (7)
Health Literacy	Score of 4 Score of 5	n (%) 50 (80) 10 (10)



POSTER PRESENTER:
 Raquel Bryan, BSN, MPH, MBA, RN, CPH, Nursing Quality and Accreditation Coordinator





 NICHE CONFERENCE

Sub-Variables		n (%)
Inpatient status	Telemetry	37 (62)
	Medical-surgical	23 (38)
History of Depression	With	13 (22)
	Without	47 (78)
History of Falls	Non-fallers	22 (37)
	Fallers	38 (63)
Mobility Aids	Without	43 (72)
	With	17 (28)
Medications	1-2	4 (7)
	3-4	15 (25)
	>5	41 (68)
Co-morbidities	02	3 (5)
	>3	57 (95)

PROGRAM PRESENTERS:
Raquel Bryan, BSN, MPH, MBA, RN, CPH, Nursing Quality and Accreditation Coordinator



 



 NICHE CONFERENCE


Top Admitting Diagnoses

Diagnoses	n (%)
Osteoarthritis	8 (13)
Cancer	6 (10)
Gastrointestinal disorder	6 (10)
Stroke	5 (8)
Cardiac-related	5 (8)

PROGRAM PRESENTERS:
Raquel Bryan, BSN, MPH, MBA, RN, CPH, Nursing Quality and Accreditation Coordinator



-  NICHE CONFERENCE
- ### Findings
1. Increased level of awareness on fall prevention among hospitalized adults;
 2. Lack of significant findings on levels of falls self-efficacy and engagement.
 3. As older adults' level of falls self-efficacy increases, the level of engagement increases.
 4. Negative correlation between the number of medications and levels of falls self-efficacy and engagement.
 5. Multimedia program showed higher levels of falls self-efficacy and engagement for older adults without mobility aids after the intervention.
- PROGRAM PRESENTERS:
Raquel Bryan, BSN, MPH, MBA, RN, CPH, Nursing Quality and Accreditation Coordinator
-  



NICHE CONFERENCE

Findings on Sub-variables

No Significant Findings	Significant Findings
<ol style="list-style-type: none"> 1. Health Literacy 2. History of Depression 3. Co-morbidities 	<ol style="list-style-type: none"> 1. Number of Medications 2. Mobility Aids

PODUM PRESENTER:
 Raquel Bryan, BSN, MPH, MBA, RN, CNRN, Nursing Quality and Accreditation Coordinator








NICHE CONFERENCE

Summary

1. Research question 1 findings:
 Significant findings on fall-risk awareness
 Non-significant findings on falls self-efficacy and engagement
2. Research question 2 findings:
 moderately strong positive correlation between falls self-efficacy and engagement on the pretests.
3. Research question 3 findings:
 Non-significant findings on demographic variables health literacy, history of depression, number of co-morbidities; significant findings on number of medications and use of mobility aids.

PODUM PRESENTER:
 Raquel Bryan, BSN, MPH, MBA, RN, CNRN, Nursing Quality and Accreditation Coordinator







NICHE CONFERENCE

Limitations

1. Highly educated sample of 76%.
2. Conducted in one acute care setting
3. Use of self-reported data
4. Lack of validation of Patient Activation Measure for use in fall-risk individuals.

PODUM PRESENTER:
 Raquel Bryan, BSN, MPH, MBA, RN, CNRN, Nursing Quality and Accreditation Coordinator



References

- Haines, T. P., Nitz, J., Grieve, J., Barker, A., Moore, K., Hill, K., & Robinson, A. (2019). Cost per fall: A potentially misleading indicator of burden of disease in health and residential care settings. *Journal of Evaluation in Clinical Practice*, 19(1), 153-161. doi:10.1111/j.1365-2753.2011.01786.x
- Hart-Hughes, S., Quigley, P., Butat, T., Powell-Cope, G., Friedman, Y., & Fitzgerald, S. (2010). Effect of group exercise on gait and balance in peripheral neuropathy. *Parkinsonism & Related Disorders*, 16(1), S59-S60. doi:10.1016/S1353-8020(10)70208-X
- Hibbard, J. H., Stockard, J., Mahoney, E. R., & Tusler, M. (2004). Development of the Patient Activation Measure (PAM): Conceptualizing and measuring activation in patients and consumers. *Health Services Research*, 39(4), 1005-1026. doi:10.1111/j.1475-6773.2004.00269.x
- Hill, A. M., Etherton-Beer, C., & Haines, T. P. (2013). Tailored education for older patients to facilitate engagement in falls prevention strategies after hospital discharge: A pilot randomized controlled trial. *Public Library of Science One (PLOS)*, 9(5), e63450. doi.org/10.1371/journal.pone.0063450

PODUM PRESENTERS

Raqaiyya Bryant, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator



References

- Hill, A. M., Hoffmann, T., Beer, C., McPhail, S., Hill, K. D., Oliver, D., & Haines, T. P. (2011). Falls after discharge from hospital: Is there a gap between older peoples' knowledge about falls prevention strategies and the research evidence? *The Gerontologist*, 51(5), 653-662. doi:10.1093/geront/gnr052
- Hill, A. M., McPhail, S., Hoffmann, T., Hill, K., Oliver, D., Beer, C., & Haines, T. P. (2009). A randomized trial comparing digital video disc with written delivery of falls prevention education for older patients in hospital. *Journal of the American Geriatrics Society*, 57(8), 1458-1463. doi:10.1111/j.1532-5415.2009.02346.x
- O'Halloran, A., Pénard, N., Galli, A., Fan, C., Robertson, I., & Kenny, R. (2011). Falls and falls efficacy: The role of sustained attention in older adults. *Bio Med Central Geriatrics*, 11(1)85. doi:10.1186/1471-2318-11-85
- O'Halloran, A., Pénard, N., Galli, A., Fan, C., Robertson, I., & Kenny, R. (2011). Falls and falls efficacy: The role of sustained attention in older adults. *Bio Med Central Geriatrics*, 11(1)85. doi:10.1186/1471-2318-11-85

PODUM PRESENTERS

Raqaiyya Bryant, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator



References

- Ory, M. G., Smith, M. L., Wade, A., Mounce, C., Wilson, A., & Parrish, R. (2010). Peer reviewed: Implementing and disseminating an evidence-based program to prevent falls in older adults, Texas, 2007-2009. *Preventing Chronic Disease*, 7(6), 130. Retrieved from www.cdc.gov/pcd/issues/2010/nov/09_0224.htm
- Prey, J. E., Woodlen, J., Wilcox, L., Sachdev, A. D., Hippsak, G., Bakken, S., & Vawdrey, D. K. (2013). Patient engagement in the inpatient setting: A systematic review. *Journal of the American Medical Informatics Association*, 21(4), 742-750. doi:10.1037/0003-066X.59.1.29
- Quigley, P. A., Hahn, B., Colizzo, S., Gibson, W., Jarzenc, S., Powell-Cope, G., & White, S. V. (2009). Reducing serious injury from falls in two veterans' hospital medical-surgical units. *Journal of Nursing Care Quality*, 24(1), 33-41. doi:10.1097/NCCQ.0b013e31818f526e
- Sadowski, C. A., Jones, A. C., Gordon, B., & Feany, D. H. (2007). Knowledge of risk factors for falling reported by patients with Parkinson's disease. *Journal of Neuroscience Nursing*, 39(6), 336-341.

PODUM PRESENTERS

Raqaiyya Bryant, BSN, MPH, MBA, RN, C/N, Nursing Quality and Accreditation Coordinator





References

- Tinetti, M. E., Richman, D., & Powell, L. (1990). Falls efficacy as a measure of fear of falling. *Journal of Gerontology*, 45(6), 239-243. doi:10.1093/geronj/45.6.P239
- Wiens, C. A., Kofeiba, T., Jones, C. A., & Feeney, D. F. (2006). The Fall Risk Awareness Questionnaire: Development and validation for use with older adults. *Journal of Gerontological Nursing*, 32(8), 43. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/16915745>

FORUM PRESENTER

Raqael Bryan, BSN, MPH, MBA, RN, CVN, Nursing Quality and Accreditation Coordinator