Improving Health Care Outcomes of Low Health Literacy Heart Failure Patients in Home Care: Targeted Interventions Model

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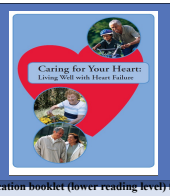


Education booklet (lower reading level) http://www.nchealthliteracy. org/hfselfmanage.html

Abstract

Using the best evidence to find effective interventions targeted for low health literacy, heart failure patients in home healthcare promotes improved self-care knowledge and behaviors. Synthesis of relevant external evidence, as well as the internal evidence obtained from the home care agency, guided the clinical decision to pursue this project. By educating the homecare clinician to provide evidence-based interventions to the project population, an improved quality of care to the vulnerable low health literacy patient with heart failure was realized as evidenced by decreased re-hospitalization within 30 days. A sustainable and scalable interprofessional education model for homecare clinicians was developed and provided. This evidence-based project demonstrated the role of the DNP prepared CNS in the translation of evidence into practice to improve quality and health care outcomes in homecare. Future work will include an emphasis on value- based interventions for other chronically ill patients with a focus of modifying the EMR to increase meaningful use for homecare patients' health outcomes.

Introduction

Background and Significance

- 550,000 adults (50% of adults) in Philadelphia are projected to have low health literacy. (Center for Literacy in Pennsylvania, 2014).
- 90 million Americans are below basic health literacy level (National Patient Safety Foundation, 2011).
- Low health literacy exists in 27% to 54% of heart failure patients and that applying principles of health literacy teaching to the education of heart failure patients should improve effectiveness of health care (Evangelista et al., 2010).

- 5.8 million individuals in the U.S. have heart failure
- One million HF hospitalizations per year
- No significant decrease in hospitalizations for heart failure from 2000-2010.
- Estimated $32 billion cost per year for care.
- By 2030, an estimated 8 million expected to have heart failure with costs exceeding $53 billion.
- 2.8 million Heart Failure patients across the U. S. receive homecare services from an interprofessional team (nurses and therapists) from about 11, 000 home care agencies.

Critical Appraisal of the Evidence

PICOT Question: Do targeted complex interventions (I) provided to home health care, low health literacy heart failure patients (P), compared to home health care as usual (C), improve patient self- care knowledge and behavior and decrease 30 day re-hospitalization rates?

Synthesis of Evidence

Authors/ Year	Level of Evidence	Design	Heart Failure Patients	Other Disease process	Low literacy/ numeracy	Simple* Intervent-ion	Complex ** Intervent-ions	Health improve-ment Outcome
Dewalt (2006)	II	RCT(Single site)	X		X		X	X
Viswanathan (2012)	I	Systematic Review	X	X		X	X	X
McCoy (2007)	VI	Descriptive	X				X	X
Evangelista (2010)	VI	Consensus	X		X		X	X
AHRQ (2011)	I	Systematic Review	X		X		X	X
Dewalt (2012)	II	RCT	X		X		X	X
Krumholz (2002)	II	RCT	X				X	X
Clement (2009)	I	Systematic review	X	X	X		X	X

Evidence-Based Frameworks

A Model for Change for EBP Rosswurm and Larrabee (1999)

The Iowa Model (Titler et al, 2001)

Lewin's (1951) three –stage model of change

The Fullstream Process for Change (Anderson & Anderson, 2001)

Intervention Synthesis

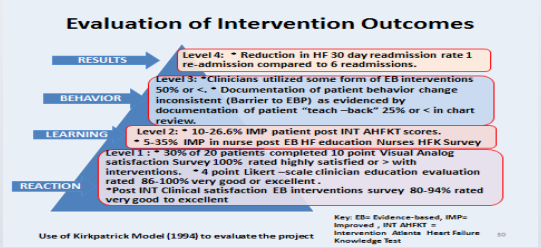
Interventions	1	2	3	4	5	6	7	8
1 hour education	X					X		
Phone Outreach/ monitor progress, answer questions	X					X		X
Daily weights						X		
Education booklet (lower reading level)	X			X		X	X	
Case Management		X						
Behavioral skills and supports		X		X		X	X	
Instruction about fluid volume status in HF/ diet/ diuretics, exercise	X					X		
Information about medication		X				X		X
Assessment of literacy level				X		X		X
Home care nursing			X					
Encourage "Ask me 3' questions				X				
Self- efficacy/ management/engagement interventions					X	X	X	X
Multidisciplinary approach				X				
Pilot tested interventions					X			
Disease management					X			
Telemonitoring							X	

1= DeWalt et al. (2006) 2= Viswanathan et al. (2012) 3= McCoy et al., (2007)
4= Evangelista et al. (2010) 5= AHRQ (2011) 6= Dewalt et al., (2012)
7= Krumholz et al., (2002) 8= Clement et al., (2009).

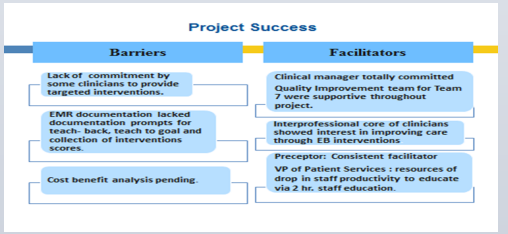
Methods of Project Implementation

Provided EB interprofessional team education. Evaluated knowledge change. On admission to Homecare, clinician **assessed health literacy level using the Newest Vital Sign** .
During all visits, **patient educated using lower reading level HF booklet, "teach- back", "teach- to goal" and chunking information** to improve patient/ caregiver understanding of heart failure self- care.
Engaged the patient to become a partner in their care and change behaviors needed.

Data Collection and Analysis



Project Implementation Processes and Stakeholders



Clinical Practice Implications and Future Plans

- Health care providers and systems must use the best available evidence to provide quality interventions for low health literacy heart failure patients.
- Health care education must be understandable to all and be provided effectively to increase chronic disease self- care knowledge and needed behaviors changes.
- Interprofessional heart failure education can improve provider knowledge and the quality of care provided.
- Patient and Clinician satisfaction in interventions was evident.
- 30 day HF readmission rates can be decreased in homecare.
- Advanced practice nurses can serve as EBP champions and effect important changes in health care.
- Future projects will include work on EBP improvements in other chronic care, work to increase health system literacy in the organization and value-based meaningful use of the EMR in home healthcare.