Impact Of An Interactive Care Plan On Patient Activation In Heart Failure Inpatients

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What exactly is Patient Activation?

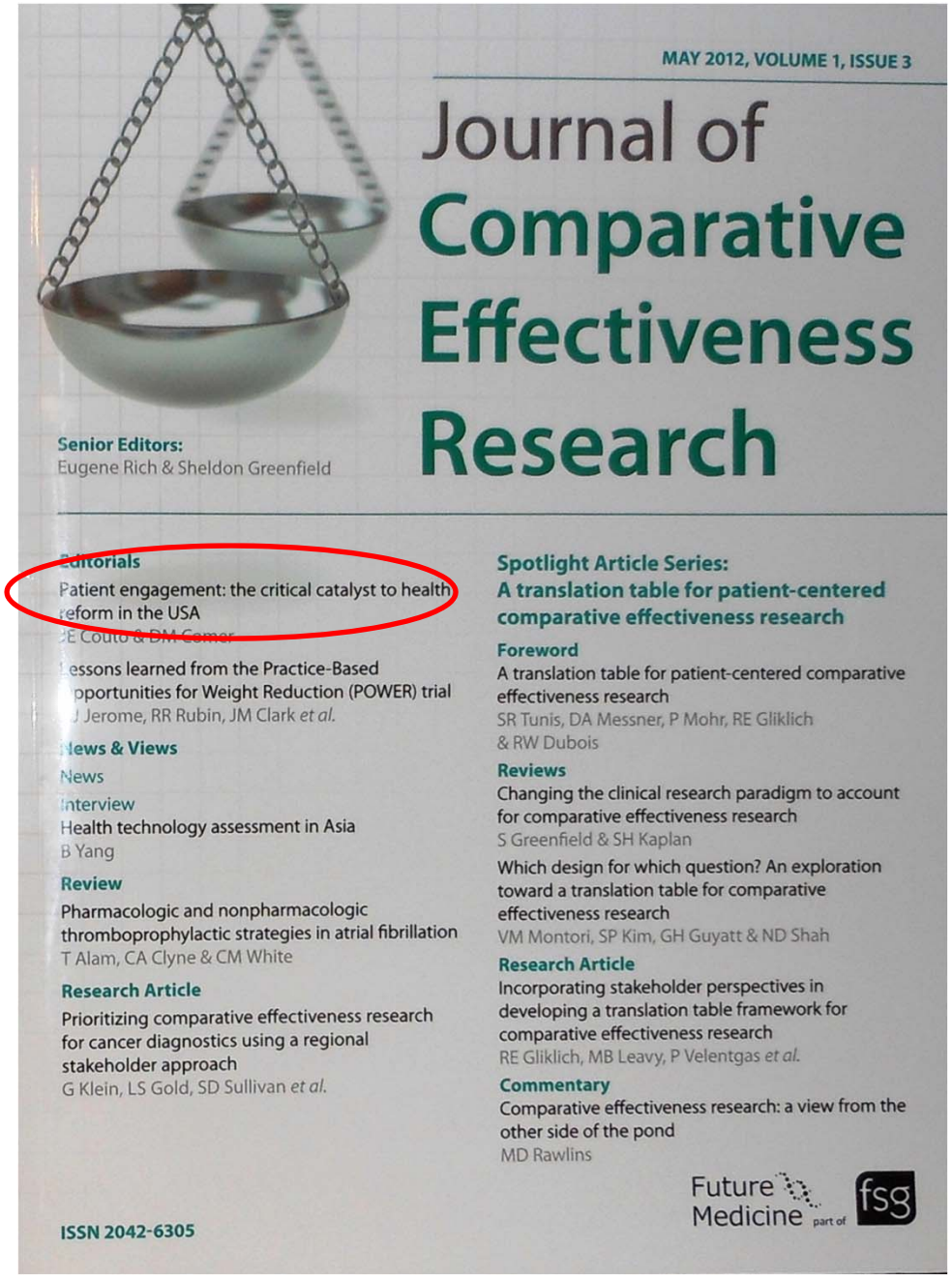
- As defined by Hibbard et al:
- "An engaged patient who demonstrates an understanding that actions determine health outcomes and that they have the confidence to institute change."

Patient Activation

- Patient's playing a more active role in their care and advocating for themselves
- Seeks to improve the following areas:
  - Health Literacy
  - Clinical Decision Making
  - Self Care
  - Patient Safety

Implications of Patient Activation

- Patients who are activated[1,2] :
  - Participate in self-management behaviors
  - Have higher medication adherence
  - Have higher quality of life scores
  - Improved outcomes in patients with chronic conditions



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Commentary

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Background

- Heart failure (HF) is a serious chronic condition that requires significant self-care to manage effectively and reduce associated avoidable readmissions.
- The inpatient acute care setting provides ample opportunities to educate and engage patients in their care to increase patient activation and improve patient outcomes[2].

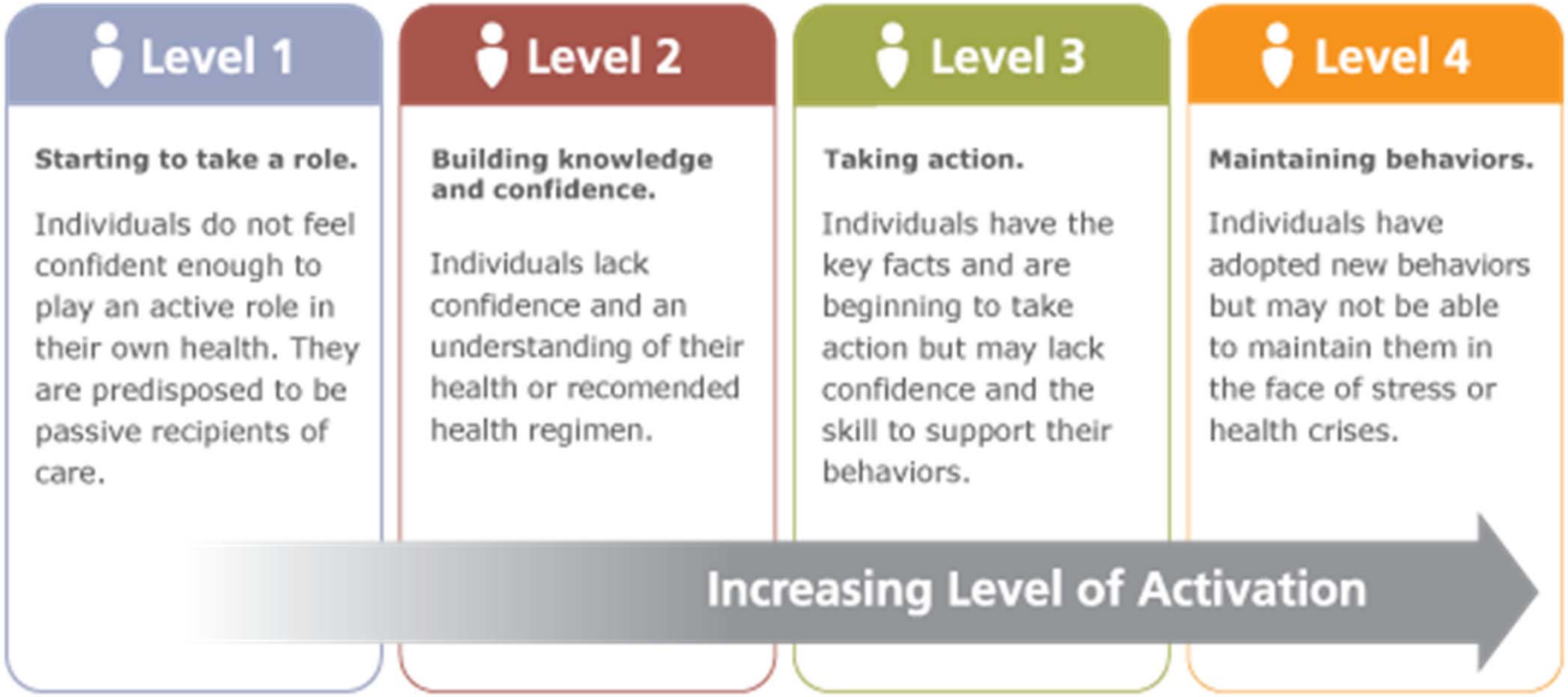
Background

- Patient activation requires a demonstrated understanding of their condition, medications and lifestyle change requirements prior to being discharged from the hospital.
- Patient activation can be measured using the PAM survey

PAM

- The Patient Activation Measure (PAM)
  - Validated and reliable
  - Original 22-item survey, abbreviated 13-item survey
  - Assesses self-reported knowledge, confidence and skill for self-management of chronic disease

PAM Activation Levels



http://www.insigniahealth.com/solutions/patient-activation-measure/

Heart Failure Interactive Care Plan

- 4-Phase Care Plan designed to better prepare patient to manage condition
- Nurse Activated
- Focus on understanding:
  - Condition
  - Signs/Symptoms
  - Medications
  - Lifestyle change

Interactive Care Plan: Phase 1

Nurse Activation
- Condition overview and literacy assessment

Pre-test Assessment
- PAM-13 Administered

First Wave of Educational Modules
- Comprehension tests and lesson overview

Staff Only Tools
EXIT
Patient Safety
Patient Education
Medication Teaching
Patient Care Plans
ADMIT
Admit-Discharge Tasks
Service Requests

Interactive Care Plan: Phases 2-3

Nurse Activation

- Overview and plan for the day

Additional Educational Modules

- Comprehension tests and lesson overview

Interactive Care Plan: Phase 4

Nurse Activation

- Condition overview

Final Discharge Educational Module

- Comprehension tests and overview

Post-test Assessment

- PAM-13 Readministered

Objective

- To determine if the use of the Heart Failure Interactive Care Plan results in an improvement in PAM-13 scores during the course of hospitalization.

Study Subjects

- Inclusion Criteria
  - Patients 18 years and over with a primary diagnosis of heart failure (ICD-9 code 428.X) in hospitals utilizing GetWellNetwork

- Exclusion Criteria
  - Unable to demonstrate proficiency in literary assessment

Methods

- Pre-test post-test design
- Patient activation measured using the PAM-13
- Two-tailed paired t-test
  - Difference in pre-test v. post-test

Results

- 275 patients in total
  - Six participating hospitals
  - Six month time span
- An increase of 0.38 in levels of activation ($p < 0.001$) was seen after the implementation of the care plan.

Patient Activation Scores

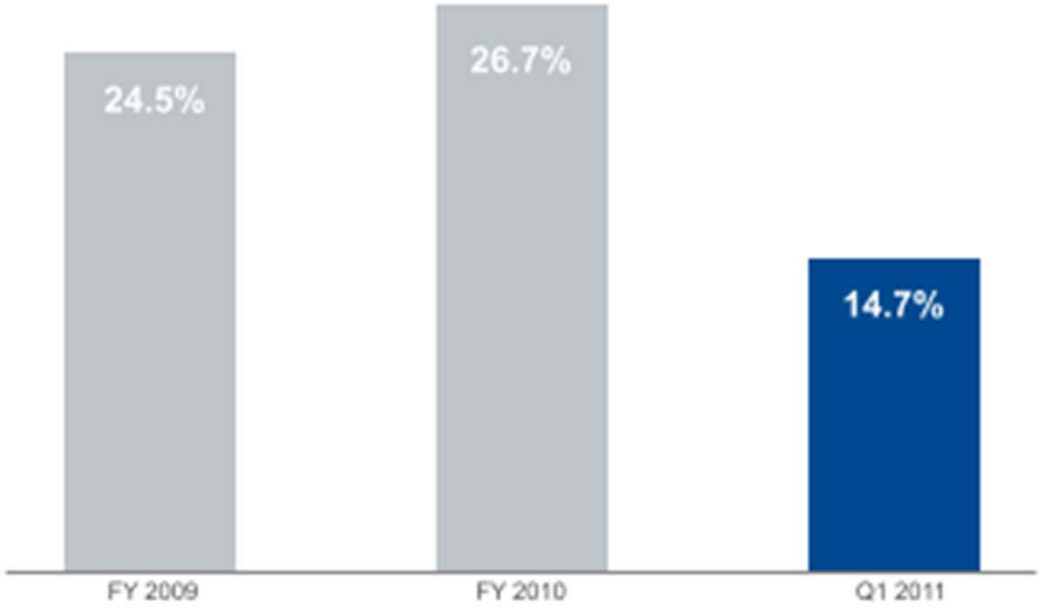
Results

- When data were stratified to remove all patients with an initial activation level of 4, the remaining 107 patients showed an average improvement of 1.05 levels of activation ($p < 0.001$).

Results

- All-cause readmission rates were promising for one hospital site:

The Indiana Heart Hospital All-Cause Readmissions Trend



Further Analysis

- Gender and age were only available for a subset of the 275 patients that participated in the study (n=113).
- Males showed a generally higher level of activation at pre-test (3.34) compared to females (3.18), although the difference was not statistically significant.
- Both males and females demonstrated statistically significant increases in activation ($p < 0.01$).

Further Analysis

Description by Age Group

Age Group	Pre-intervention	Post-intervention
<50	3.5	3.8
50-59	3.28	3.74
60-69	3.28	3.67
>70	3.32	3.62

Limitations

- Limited demographics were collected
  - Limitation of available technology and man-power
- Demographics were not complete
- Most patients in the study were already in the top activation level, pre-test

Future Research

- Future research includes analysis on patient activation and length of stay
- Further investigation of readmission rates, specific to heart failure

Conclusion

- Interactive patient-centered educational tools such as the Heart Failure Interactive Care Plan can be used to improve patient activation in heart failure inpatients.

Resources

- 1. Mosen DM, Schmittdiel J, Hibbard J, Sobel D, Remmers C, Bellows J. Is patient activation associated with outcomes of care for adults with chronic conditions? J Ambul Care Manage. 2007 Jan-Mar;30(1):21-9.
- 2. Chu ES, Hakkarinen D, Evig C, Page S, Keniston A, Dickinson M, Albert RK. Underutilized time for health education of hospitalized patients. J of Hosp Med. 2008; 3(3):238-246.

QUESTIONS???