# Heart PACT: Patient Activation in High-risk Patients with Heart Failure

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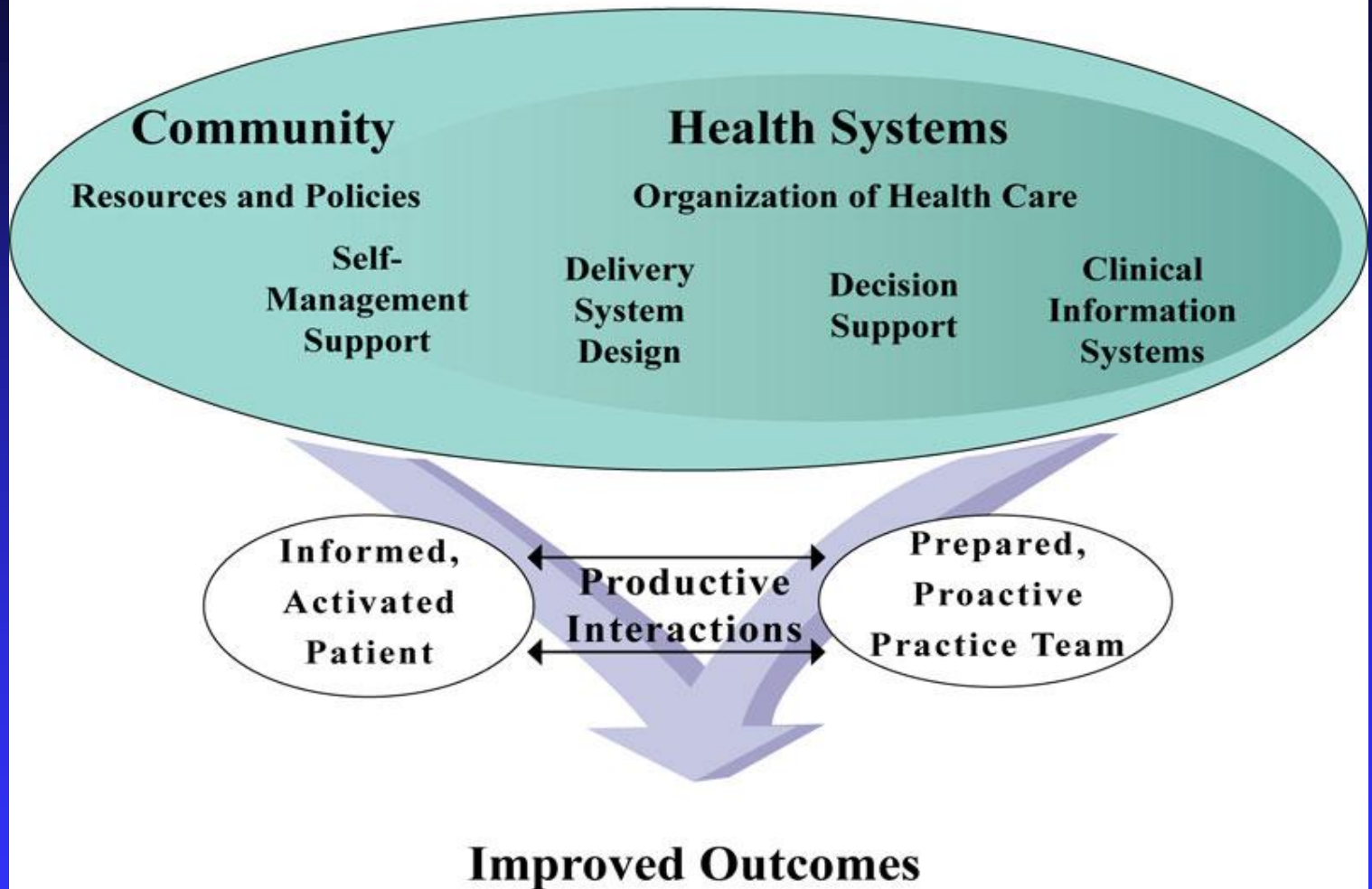
# VA Acknowledgement

# Study Purpose

- Determine effect of patient activation intervention/Heart PACT program on
  - activation
  - self-care management
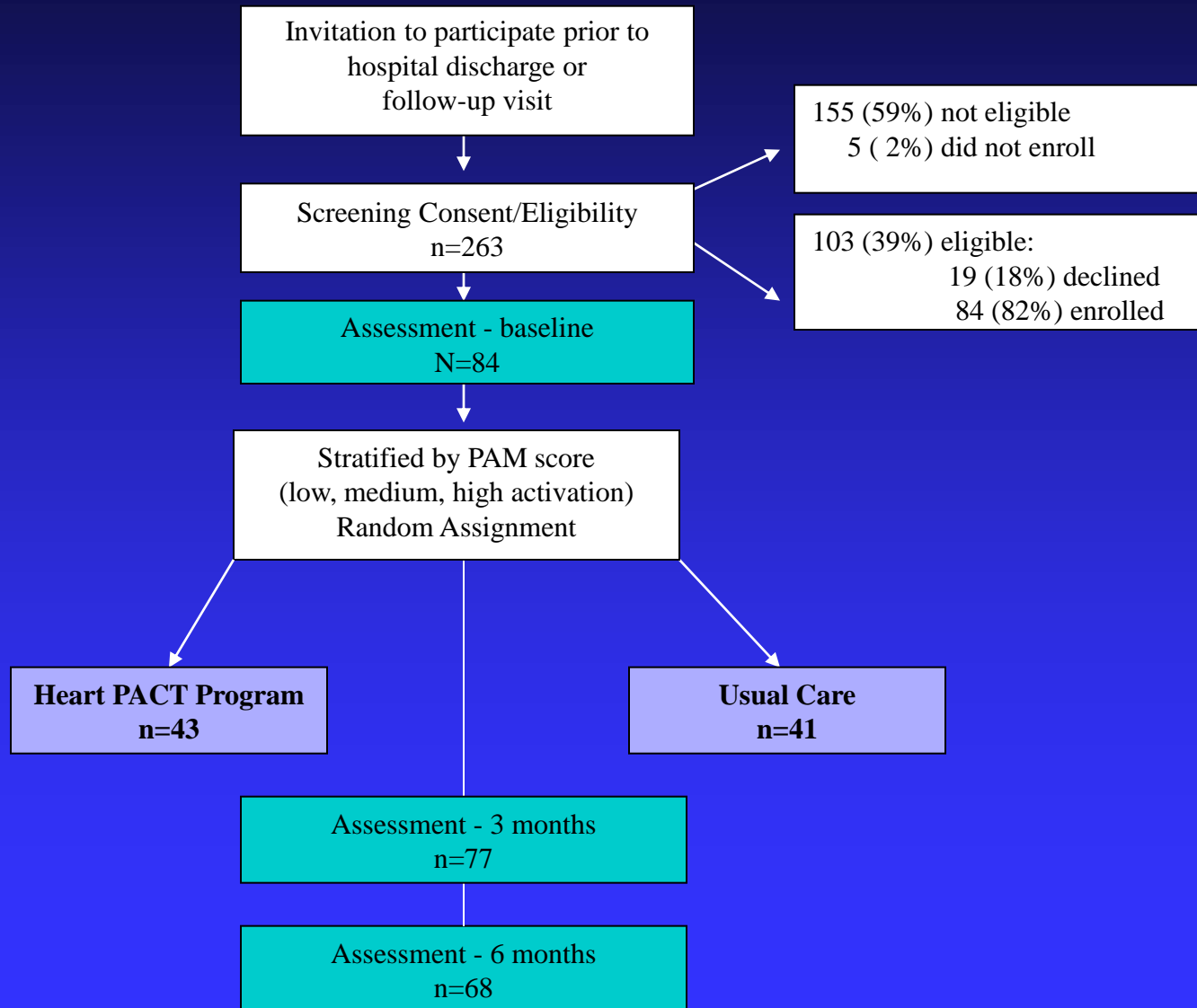  - hospitalizations
  - emergency department visits

# The Chronic Care Model

**Community**

Resources and Policies

**Health Systems**

Organization of Health Care

Self-Management Support

Delivery System Design

Decision Support

Clinical Information Systems

Informed, Activated Patient

**Productive Interactions**

Prepared, Proactive Practice Team

## Improved Outcomes

Developed by The MacColl Institute
® ACP-ASIM Journals and Books

# Patient Activation

- Patients who have the information, motivation, and behavior skills needed to manage their chronic illness, collaborate with health care providers, maintain functioning, and access appropriate care

# Clinical Trial Design

Invitation to participate prior to
hospital discharge or
follow-up visit

Screening Consent/Eligibility
n=263

155 (59%) not eligible
5 ( 2%) did not enroll

103 (39%) eligible:
19 (18%) declined
84 (82%) enrolled

Assessment - baseline
N=84

Stratified by PAM score
(low, medium, high activation)
Random Assignment

**Heart PACT Program
n=43**

**Usual Care
n=41**

Assessment - 3 months
n=77

Assessment - 6 months
n=68

# Outcomes - Activation

Patient Activation Measure - PAM (Hibbard et al., 2005)

13 items, 4-point Likert scale

4 stages of activation

1. May not believe patient role important
2. Lacks confidence & knowledge
3. Beginning to take action
4. Difficulty maintaining behaviors over time

# Outcomes - Self-Management

Self-Care of Heart Failure Index -SCHFI
(Riegel et al., 2004)

3 subscales

1. Maintenance – adhere to regimen, monitor symptoms
2. Management – recognize change, take action
3. Self-confidence

# Outcomes - Self-management

Medical Outcomes Study (MOS) Specific Adherence Scale

8 items, Likert scale

Similar to SCHFI maintenance subscale

# Outcomes

- Hospitalizations
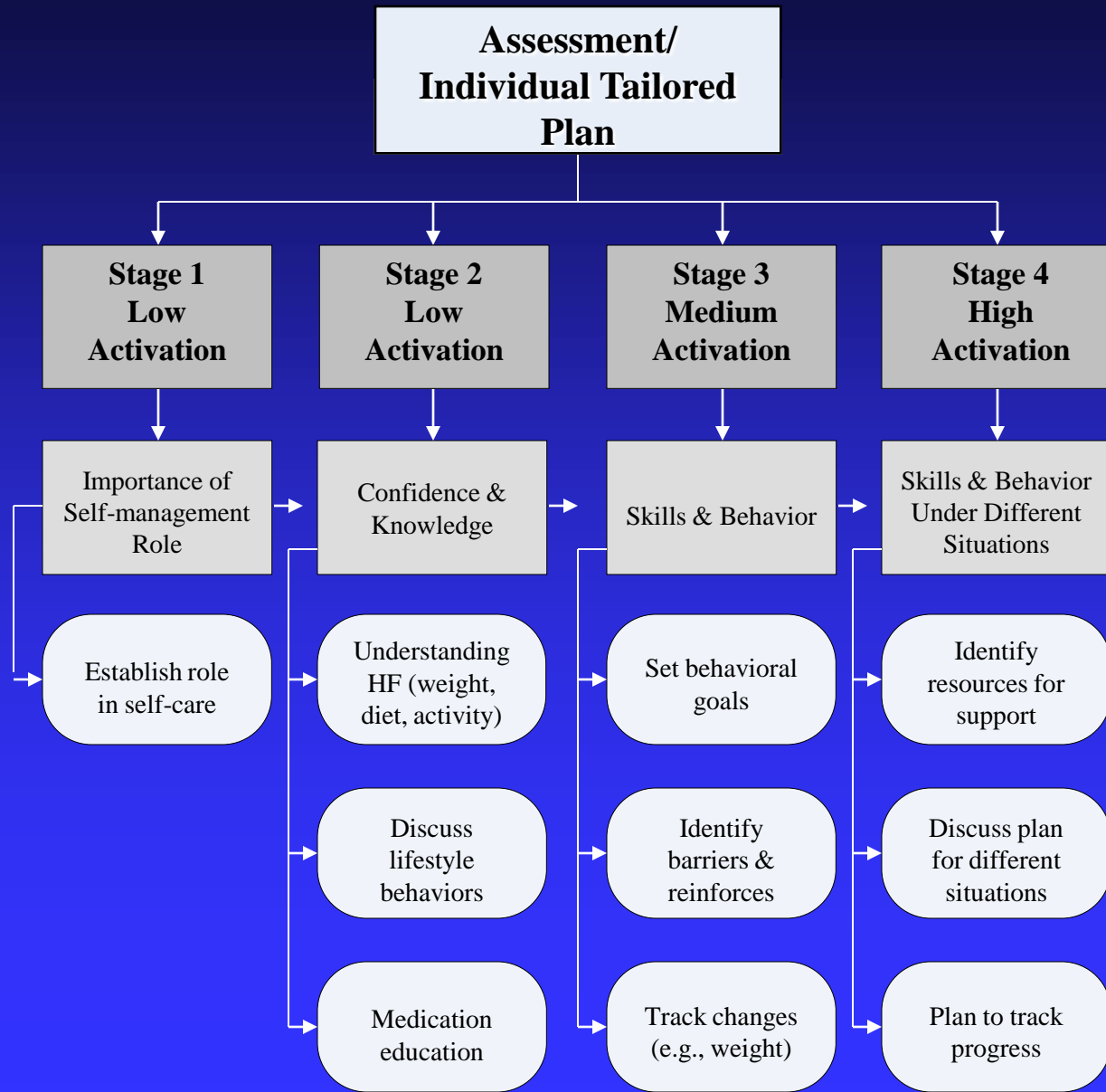- Emergency department visits

  Self-report

  VHA Medical SAS Inpatient and
  Outpatient Datasets

# Heart PACT Program

- 6-month program
- Individualized/tailored plan
  - activation stage
- BNP feedback
- Toolkit: weight scale, wrist BP cuff, pedometer, HF booklet, and HF video

# Heart PACT Program Tailored to Activation Stage

**Assessment/ Individual Tailored Plan**

| Stage 1 Low Activation | Stage 2 Low Activation | Stage 3 Medium Activation | Stage 4 High Activation |
|---|---|---|---|
| Importance of Self-management Role | Confidence & Knowledge | Skills & Behavior | Skills & Behavior Under Different Situations |

**Stage 1**
- Establish role in self-care

**Stage 2**
- Understanding HF (weight, diet, activity)
- Discuss lifestyle behaviors
- Medication education

**Stage 3**
- Set behavioral goals
- Identify barriers & reinforces
- Track changes (e.g., weight)

**Stage 4**
- Identify resources for support
- Discuss plan for different situations
- Plan to track progress

# Sample

- 83 men, 1 woman
- Mean age $66 \pm 11$
  - Usual care group sig older: 69 vs. 63
- 77%  Caucasian
- 52% NYHA III
- 71% had > 3 comorbidities

# Results – Activation

- PAM scores - intervention group showed sig. increase from baseline to 6 months
- Intervention group improved more over time compared to usual care group – medium activation level
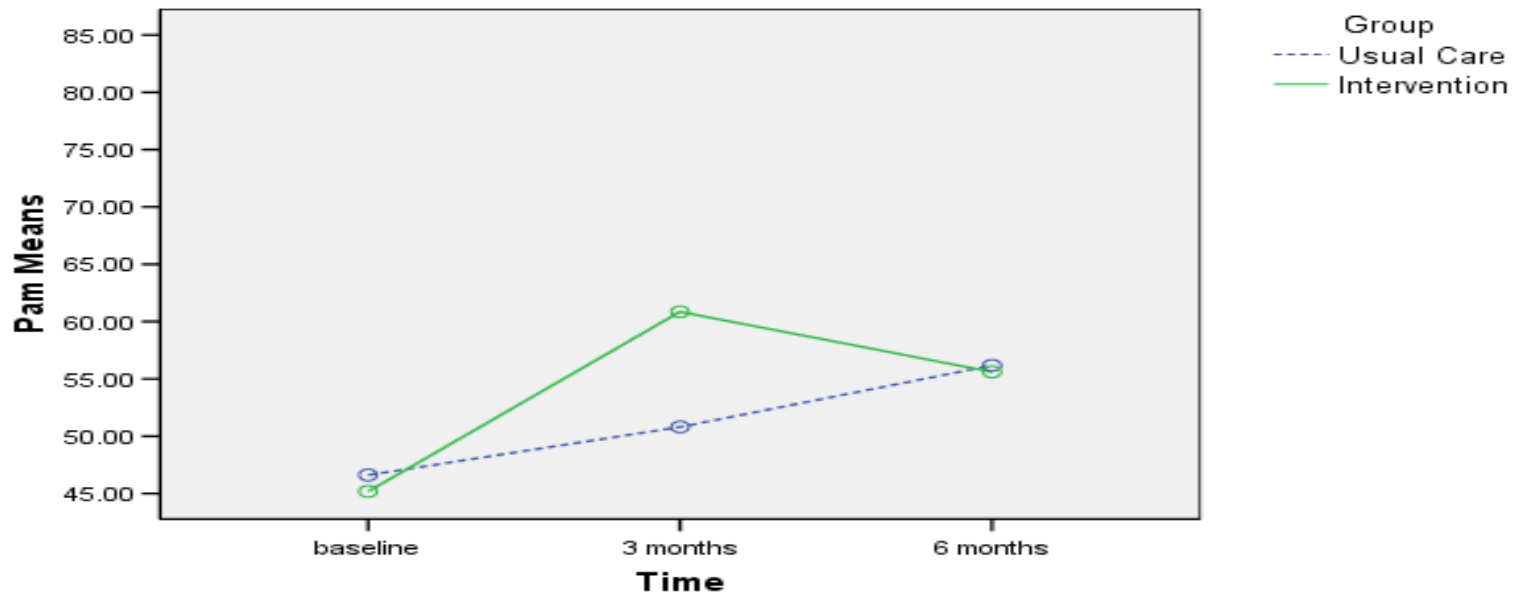
# PAM Scores
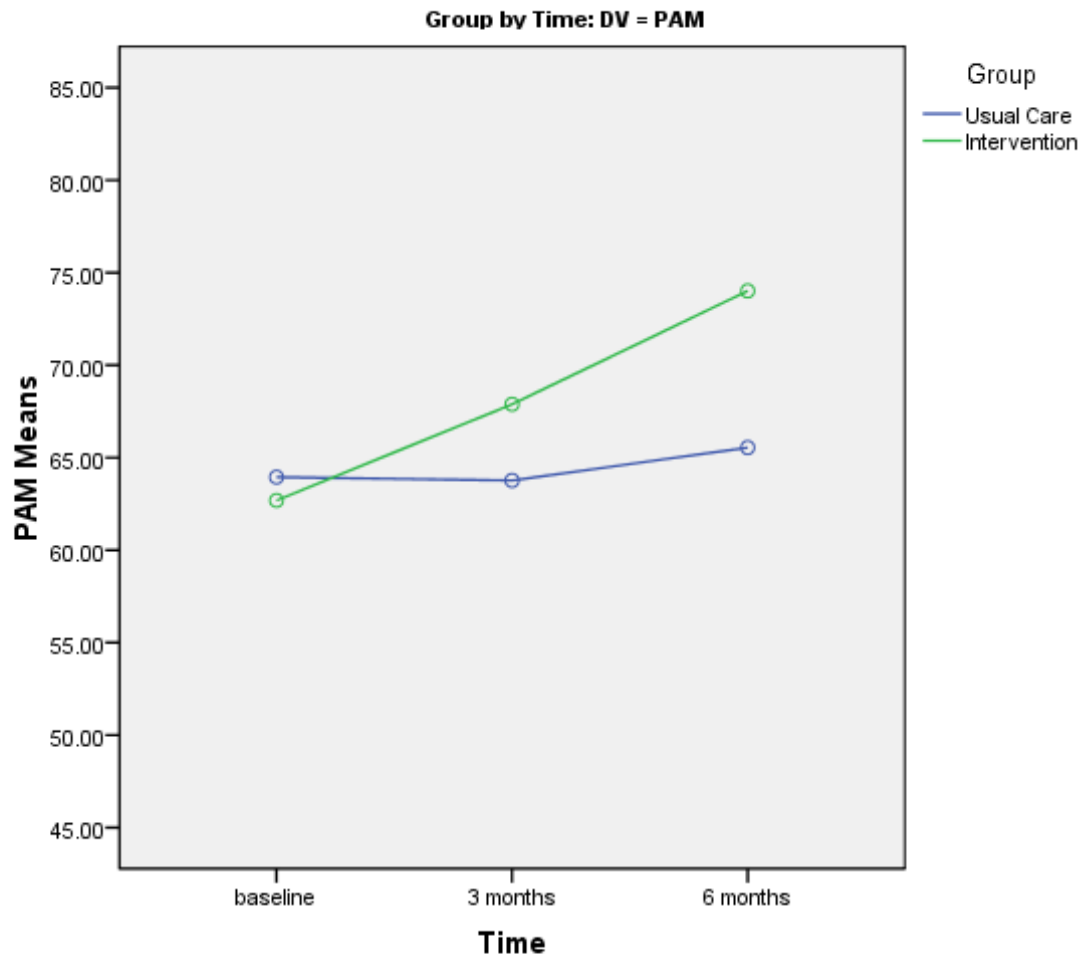
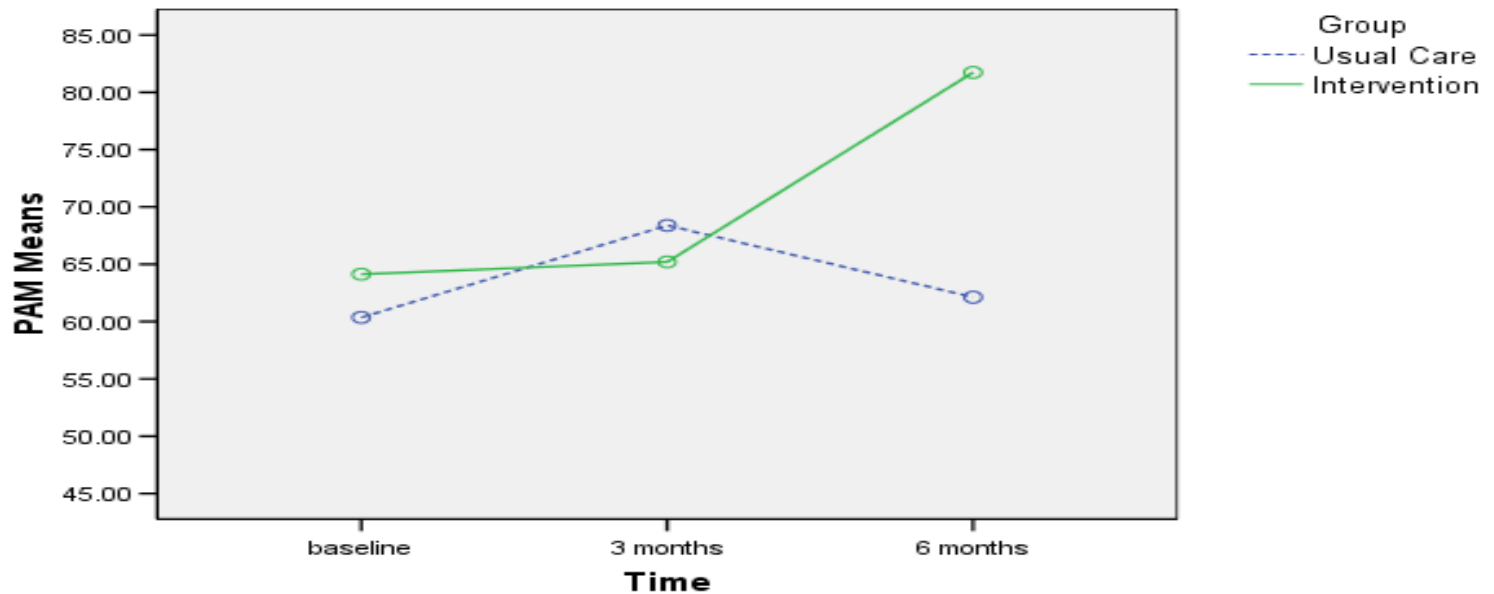# Activation Level and PAM - Low



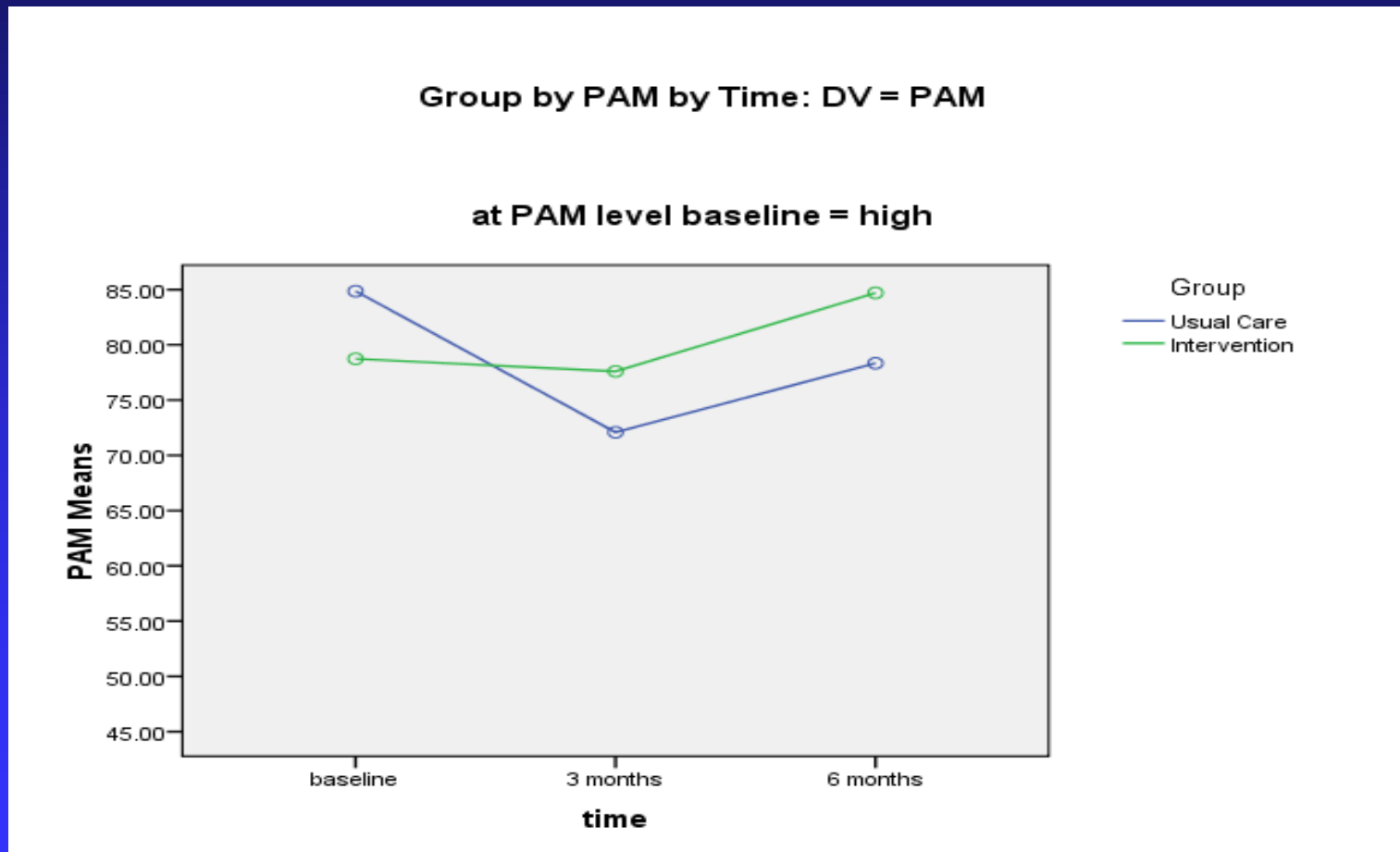Group by PAM by Time: DV = PAM

at PAM level baseline = low

# Activation Level and PAM - Medium

# Activation Level and PAM - High



Group by PAM by Time: DV = PAM
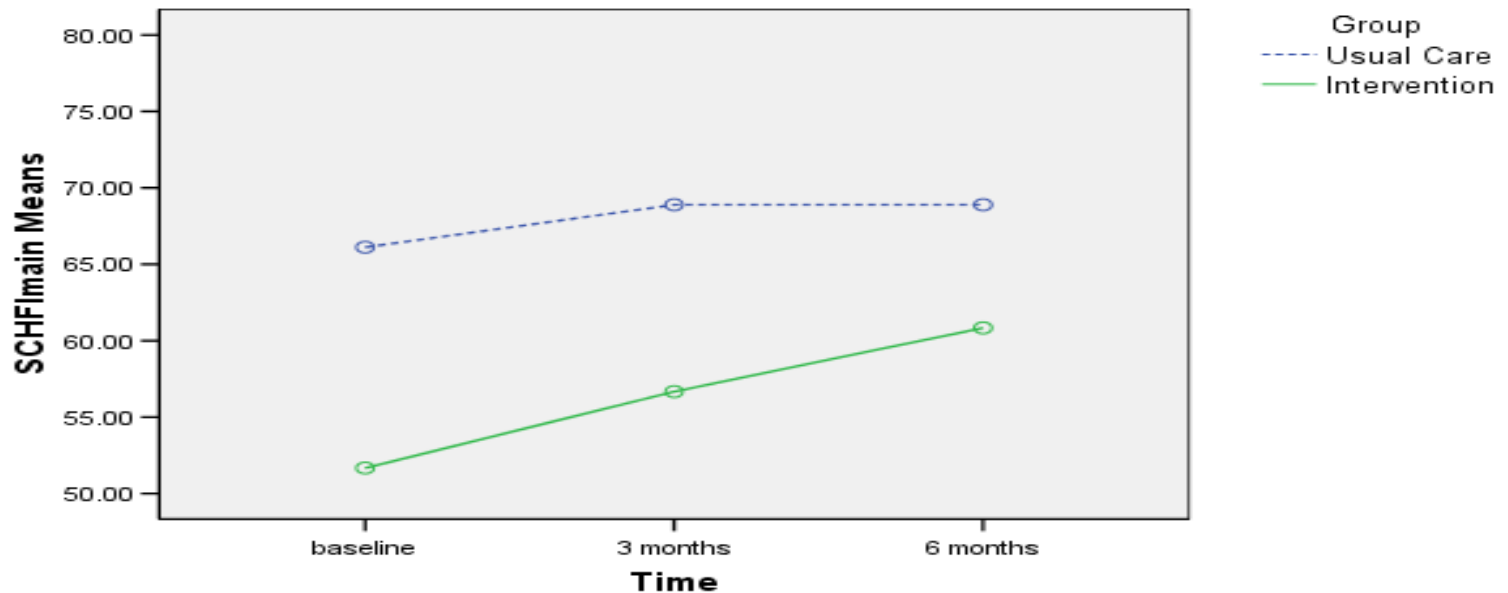
at PAM level baseline = high

# Results – Self-Management

- SCHFI - no sig. differences
- Pattern for SCHFI same as PAM for medium level activation
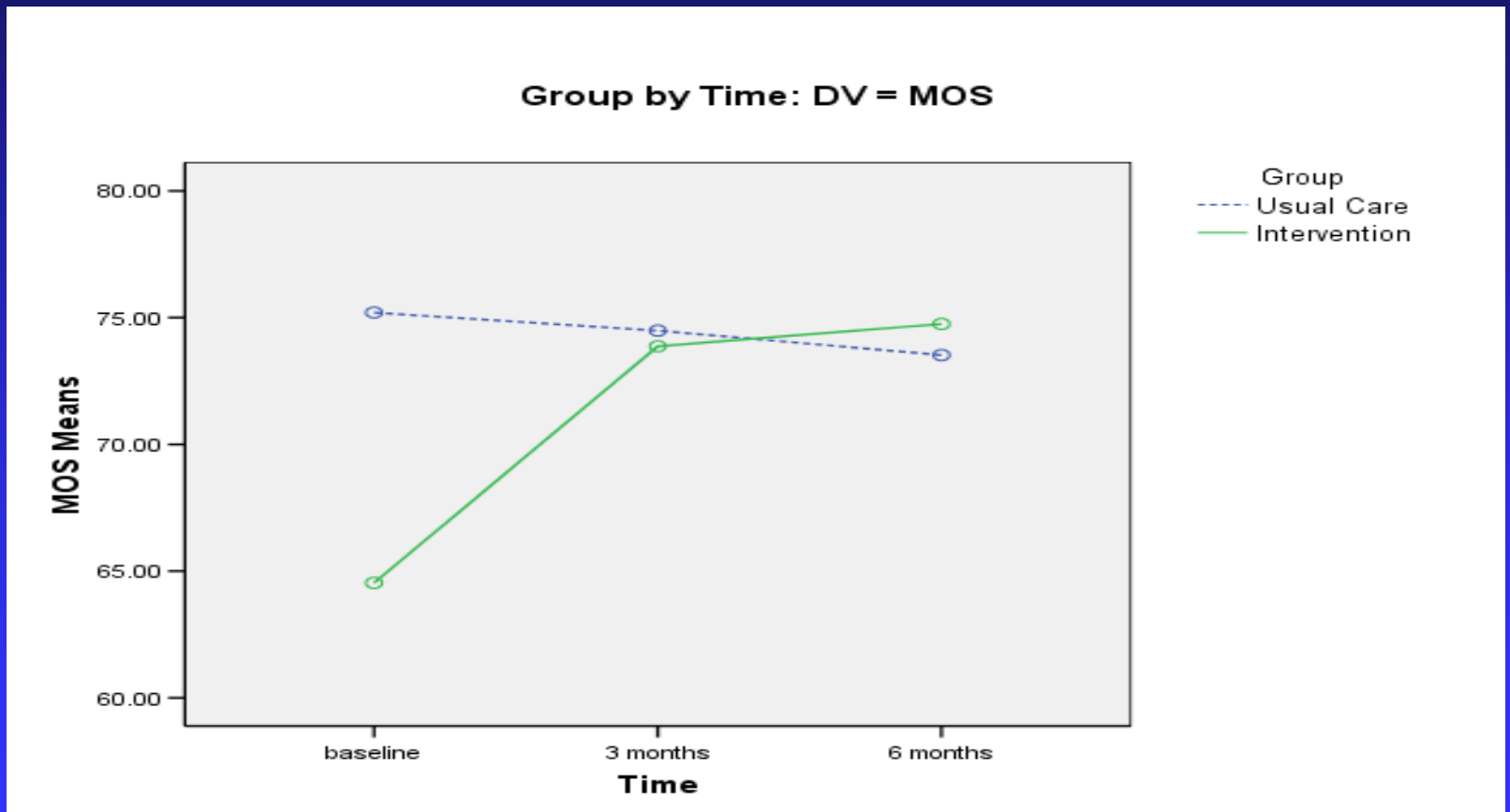
- MOS - intervention group improved more over time

# SCHFI- Maintenance by PAM level



Group by PAM by Time: DV = SCHFImain

at PAM level baseline = medium

# MOS Specific Adherence Scale

# Results – Hospitalizations & ER Visits

- Hospitalizations
  - intervention group had fewer hospitalizations when activation was low or high
  - intervention group had more hospitalizations when activation was medium

# Discussion

- Activation intervention effect for those with medium activation

- Hibbard - changes in activation followed by improved health behaviors and functioning (could be a lag between activation change & behavior change?)

# Limitations

- Sample size
- Attrition
- Missing data
- Instrumentation
- Small number of hospitalizations, ER visits
- Clinical practice changes

# Summary and Implications

- Activation improved through targeted intervention.
- PAM & brief clinical interview may be useful in clinical settings.
- Activation level did not significantly affect SCHFI scores.
- Hospitalization findings not clear.
- Further research - causal links between activation, self-management, hospitalizations.

# Selected References

- Hibbard, J. H., Mahoney, E. R., Stockard, J., & Tusler, M. (2005). Development and testing of a short form of the patient activation measure. *Health Services Research, 40*(6 Pt 1), 1918-1930.

- 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, Part I), 1005-1026.

- Riegel, B., Carlson, B., Moser, D. K., Sebern, M., Hicks, F. D., & Roland, V. (2004). Psychometric testing of the Self-Care of Heart Failure Index. *Journal of Cardiac Failure, 10*, 350-360.

# Questions?