

A Study on the Effect of the Nurse-Led Multidisciplinary Transitional Care Model on Self-Management in Younger Vulnerable Chronic Disease Patients



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Transitional Care

A range of time limited services and environments that complement primary care and are designed to ensure health care continuity and avoid preventable poor outcomes among at risk populations as they move from one level of care to another, among multiple providers and across settings.

The Case for Transitional Care

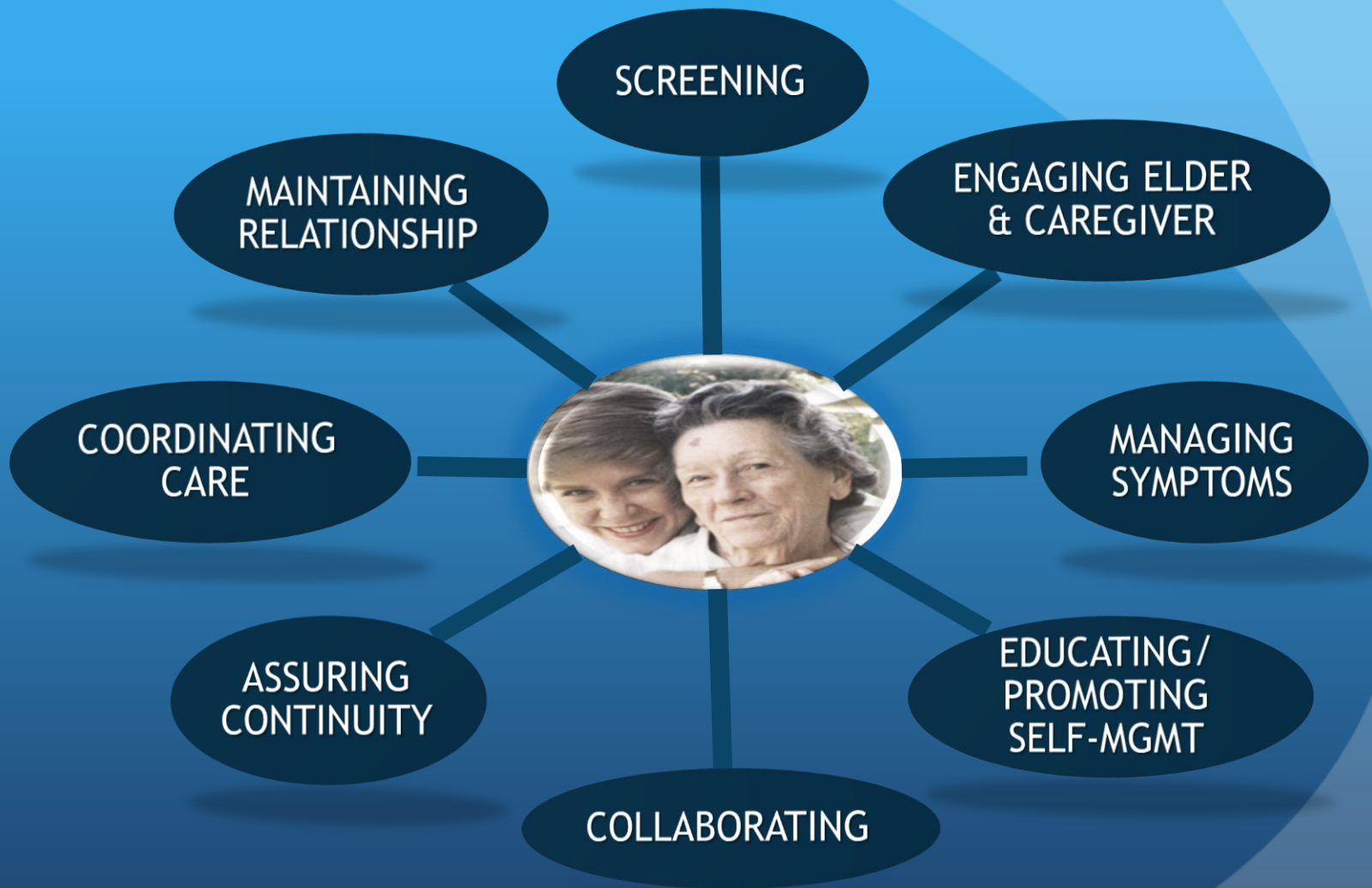
- High rates of medical errors
- Serious unmet needs
- Poor satisfaction with care
- High rates of preventable readmissions
- Tremendous human and cost burden

Major Affordable Care Act Provisions

- Center for Medicare and Medicaid Innovation
- Community-Based Care Transitions Program
- Patient Centered Medical Homes
- Shared Savings Program (ACOs)
- Federal Coordinated Health Care Office
- Payment Innovation (Bundled Payments)

Background on the Transitional Care Model (TCM)

- Nurse-led integration of multidisciplinary health care teams caring for chronic disease patients from hospital discharge until their first primary care provider visit
- Originally intended to provide comprehensive care for the elderly and identify root causes for poor health outcomes and reduce readmissions
- APN is the point of contact and leads the multidisciplinary health team with the patient at the center of their care
- APN visits with patient in the hospital, their home, and accompanies them to their first PCP visit



Significance for Transition Center

- We hypothesized this model could be implemented successfully with a different target population, a modified intervention, and measure additional outcomes
- Expansion of nurse visits to hospital, home, and PCP visit, will promote continuity of care, address additional health care barriers not seen in the clinic, and potentially reduce health disparities in a significant manner

Transition Center

- Full-time ARNP, RN, two clerical staff
- Part-time physician (COM faculty), geriatrician (COM faculty), social worker, diabetic educator, pharmacist
- Qualified patients are referred from TMH (mostly inpatient, but can be ED)
 - Uninsured
 - Insured but no PCP
 - Has PCP, but no f/u appt within 7 days of discharge
 - More than 3 admissions in one year

Transition Center

- Once referral is made, then either ARNP or RN visit the patient in the hospital (solely inpatient)
 - Explanation of TC services
 - Information on appt after discharge
- TC visits
 - Patient is seen within 5 working days from hospital DC
 - Coordinated care approach to address health and social needs
 - First visit can last up to 2 hours
 - Referral to PCP

TC Demographics

Total # patients	3241
Males	50%
Females	50%
Average age	48 yo
AA	50%
Urban	69%
Rural	31%
Uninsured	75%
Multiple dx (4)	41%

Most common
diagnoses:
HTN
DM 2
Depression
Tobacco Use
ETOH
Obesity
Chronic pain

Aims of Study

- 1 year pilot study will:
 - Compare effects of the TCM versus usual care on self-efficacy in chronic disease patients
 - Impact on self-efficacy, self-care management, and self perception of health
 - Seek a correlation between health literacy and self-management scores for chronic disease patients?

Aims of Study

- Compare effects of the TCM versus usual care on health disparities in chronic disease patients
 - Impact on barriers to health care access
- Compare effects of the TCM versus usual care on health related quality of life in chronic disease patients
 - Impact on health related quality of life
- Explore the feasibility of the intervention
- Qualitative assessment of nurse case notes
 - Nurses' perceptions of intervention
 - Patients' perceptions of intervention
 - Types of interventions

Instruments

- Self-efficacy
 - Self-Efficacy for Managing Chronic Disease 6-Item Scale (internal consistency and reliability 0.91)
- Self-management
 - Patient Activation Measure (PAM) (infit 0.92, outfit 0.85-1.11)
- Perception of health
 - Self-Rated Health Scale (test-retest reliability 0.92)
- Health literacy and self-management
 - Shortened Test of Functional Health Literacy Assessment (S-TOFHLA) Scale (internal consistency 0.97, validity 0.91)
 - Patient Activation Measure (PAM)

Instruments

- Barriers to access health care
 - Health Care Access Barrier Model
- Health related quality of life
 - Health Related Quality of Life-14 (HRQOL) Scale (test-retest reliability 0.75)

Examples of Structural Barriers

Availability: Medical Home	Waiting time
Transportation to health care facility	Multiple locations for tests and specialists
Telephone access to providers	Continuity of care
Lack of child care resources	Multi-step care processes
Street safety	Operating hours of health care facility

Examples of Financial Barriers

No health insurance
Underinsured

Examples of Cognitive Barriers

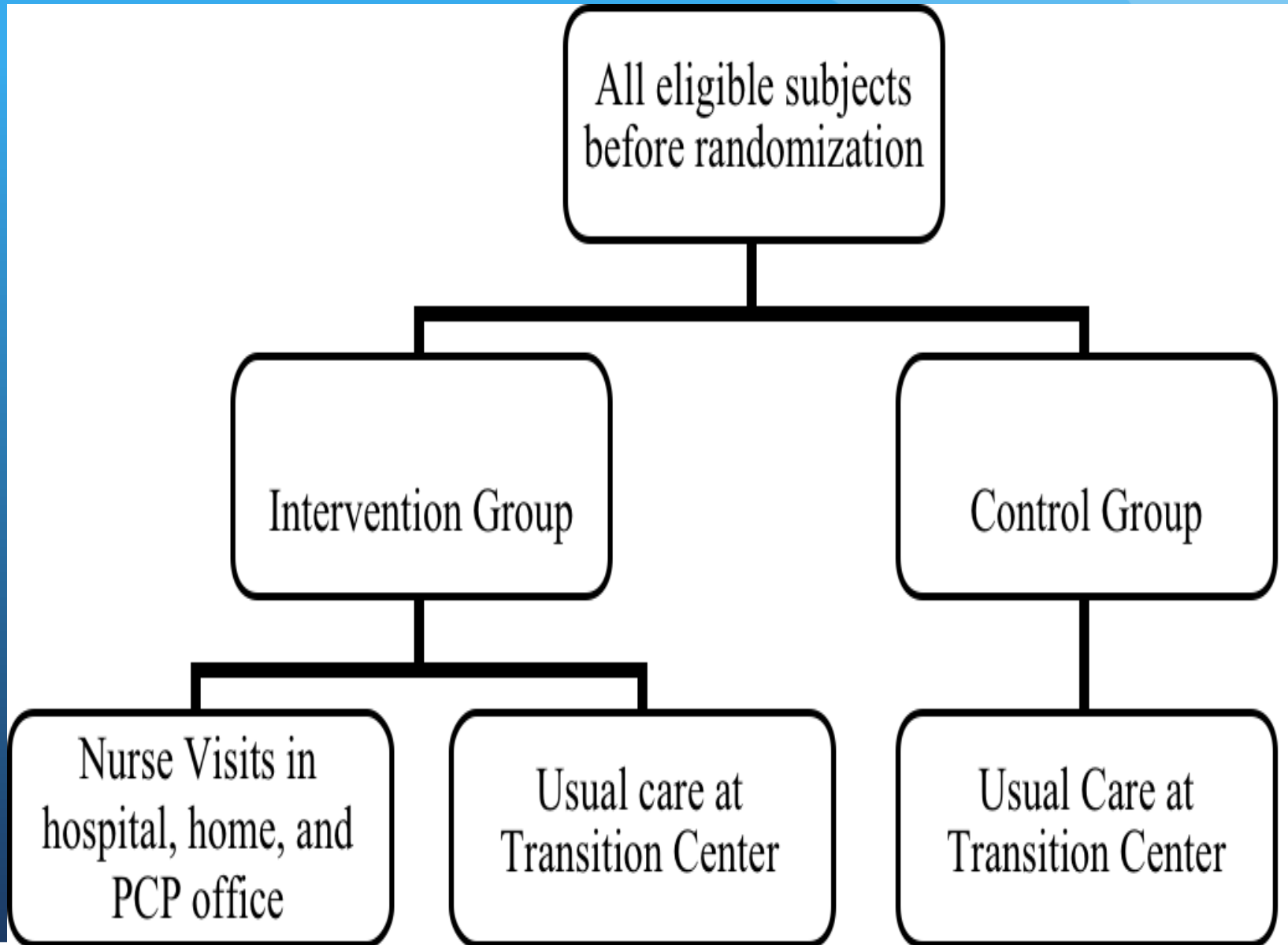
Knowledge Barriers	Communication Barriers
Awareness of prevention facts	Availability: interpreter services
Awareness of health resources	Language concordance of signage
Health literacy	Availability: cross-cultural communication skills
Understanding of diagnosis	Availability: translated materials
Understanding of treatment	Racial/ethnic concordance of provider

Sources, as listed in the Notes at the end of this paper: 19, 21, 28, 29, 35, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48.

Sample

- 30 participants (N=15 control; N=15 intervention)
- Recruited from the hospital once referral was made for TC services
- Inclusion criteria:
 - Chronic disease
 - Physical address
 - Access to telephone or email
 - 18 years and older
- Exclusion criteria
 - Younger than 18
 - Significant mental disability where informed consent cannot be completed
 - No physical address
 - No access to telephone or email

Methods



Phase I Hospital visits:

- Patient-centered healthcare plan started
- Collaboration with other health disciplines

Patient

Phase II Home visits:

- Address Patient-centered healthcare plan
- Collaboration with other health disciplines continues
 - Medication reconciliation
 - Assess patient safety
 - Assess physical symptoms
- Promote adherence to therapies
- Educate on chronic disease management
- Promote healthy behaviors

Phase III PCP visit:

- Share patient-centered care plan
 - Encourage communication of patient's needs

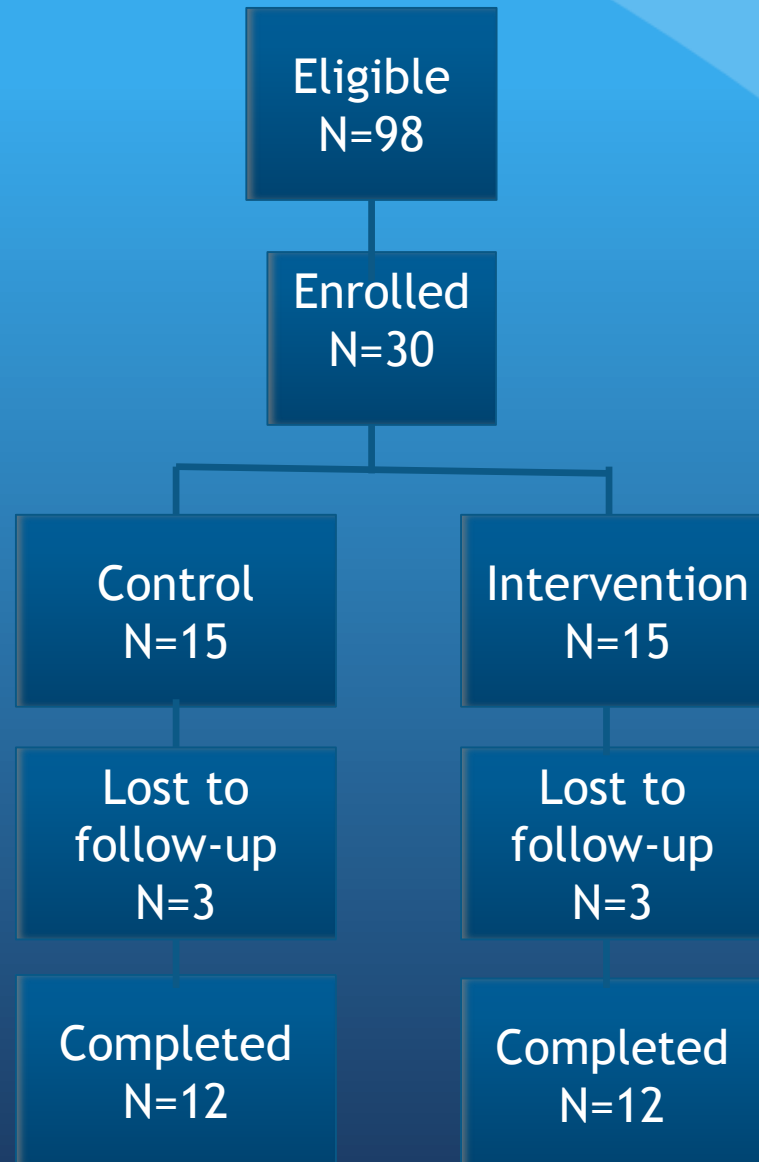
Patient-Centered Interventions

- Omaha System
 - Researched based, comprehensive practice model to address patient's health needs
 - Problem classification (Patient assessment)
 - Intervention scheme (Care plan and services)
 - Problem rating scale for outcomes (Patient change/evaluation)
 - Evidenced-based Guidelines (National Guideline Clearinghouse)

Procedures

- RN met with APN/team at Transition Center and research staff on a weekly basis addressing barriers
- Length of intervention can last 4-12 visits depending on the participant's needs

Results



	Control N=12	Intervention N=12
Average Age	48	45
Female	50%	67%
AA Race	58%	42%
Rural Residence	17%	17%
Married	17%	33%
Caregiver	33%	42%
Uninsured	67%	75%
Smoker	25%	25%
ETOH	20%	33%
Employed	33%	50%
College Education	17%	17%
Salary <\$10,000	75%	50%
Automobile for Transportation	67%	75%

	Control N=12	Intervention N=12
Most common Dx	Type 2 DM	Type 2 DM
Average number of Dx	3	3
Average Rx	2	3

	Intervention N=12
Number of home visits	4.30
Length of intervention	15.9 days

Results

	Control N=12	Intervention N=12
Pre PAM	39	40
Post PAM (CI 95%; p=.002)	41	48

Self-management was measured by the Patient Activation Measure (PAM). The PAM assesses: 1) patient self-reported knowledge, skill, and 2) confidence for self-management of one's health or chronic condition.

Next Steps

- Refine/categorize patient-centered interventions
- Refine RN utilization
- Standardize approach towards hospitalized patients on prioritization of needs
- Impact on ED/rehospitalizations
- Impact on costs
- Conduct a qualitative review of the nurses' case notes to understand the underlying themes of the patient-centered interventions

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Table on Slide 4

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