Self-Management: State of the Art Through My Lense

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Sources of Funding 1979-2017

- ► NINR
- NIAMS
- NIADDK
- ► AHCPR
- CDC
- ► NCI
- ► ACR/ARHP

- Robert Wood Johnson
- Archstone Foundation
- Bristol Myer Squibb Foundation
- Amgen Foundation
- ACL
- Stanford Cancer Center
- NCOA



Self-Management: What is It?

Self-management - tasks that individuals must undertake to live with one or more chronic conditions

Tasks include having confidence to deal with medical management, role management, and emotional management of their conditions

Institute of Medicine 2004



'People looking after themselves and each other'



Why should we care?

Self-management prepares people with chronic conditions for the 99% of the time they spend outside of the health care system



Why do patients care?

Our World View Changes We Must Manage:

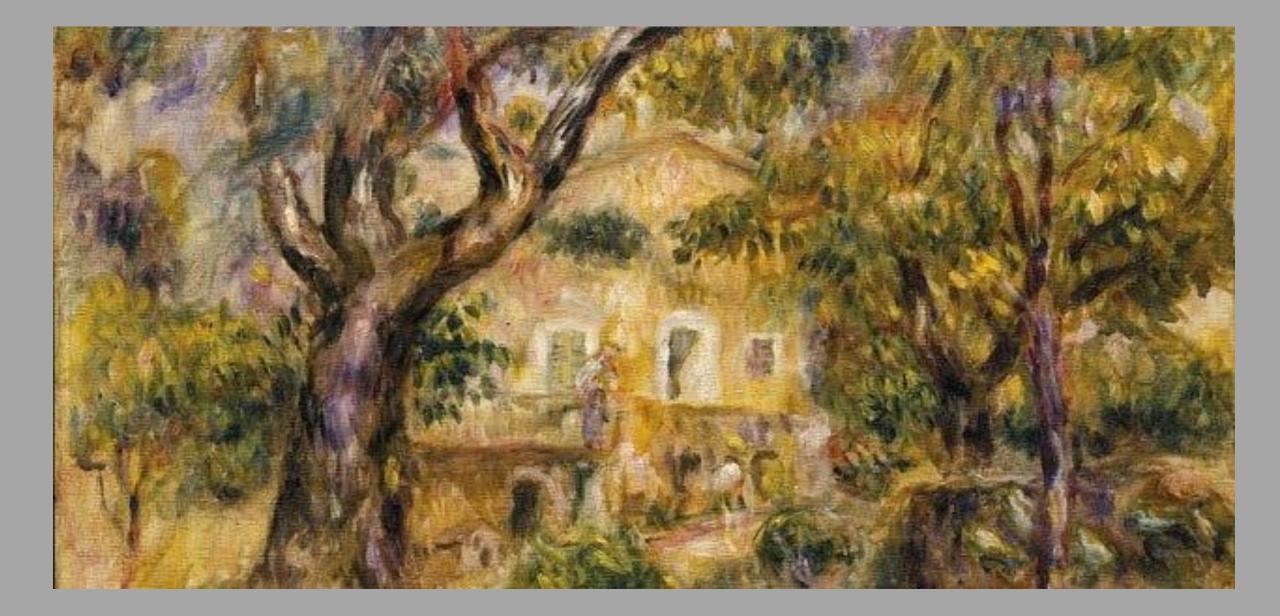
- Our Health
- Doing what we want and need to do
- Our emotions











How the Art Evolved





Dissertation: Arthritis Self-Management a Joint Venture

Hypotheses

- Knowledge, behaviors and health status will improve
- Improvements in knowledge and behaviors will be associated with improvements in health status



Dissertation Outcomes

- Knowledge improved
- Behaviors improved
- Health status improved

BUT



Correlations were low (<.2) and mainly not significant</p>

The Hunt for Theory

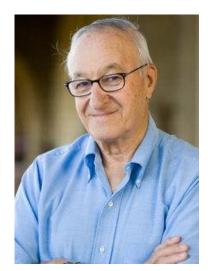
- NO → Locus of Control
- NO → Stress and Coping
- NO → Congruence

YES → Self-Efficacy



(correlations of change in SE with changes in health status .29-.41)

Self-Efficacy Theory



Self-efficacy is one's belief that one can accomplish a specific task or behavior

Self-efficacy is built by:

- Skills Mastery
- Modeling
- Reinterpretation of Symptoms
- Social Persuasion



Further Art Refinement

Chronic Disease Self-Management:

An early non-disease specific program





Objective

"To evaluate the effectiveness (changes in health behaviors, health status, and health service utilization) of a selfmanagement program for chronic disease, designed for use with a heterogeneous group of chronic disease patients."

Supported by the University of California Tobacco-Related Disease Research Program grant no. TR156 and

AHCPR grant no. 5 R01 HS06680



Lorig, Kate R., et al. "Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: a randomized trial." *Medical care* 37.1 (1999): 5-14.

Intervention

- Face-to-face groups
- 6 weeks
- 2.5 hours/week
- 8-15 participants
- 2 peer facilitators
- Interactive pair-and-share
- Based on Self-Efficacy theory

<text>

what I could and couldn't do. Chronic Disease Self-Management workshops put me back in charge. Now I have the energy to do the things that matter. I've put life back in my life. <u>Free Workshops at Dunellen Public Library</u>

Free Workshops at Dunellen Public Library 100 New Market Road, Dunellen, NJ 08812 Mondays, March 9, 2015 to April 13, 2015 1:00 - 3:30 p.m.



To register or get more information, please contact: Karen Hale: (732) 238-5570 ex: 2032 or khale@hqsi.org OR Sam Latini: (732) 968-4585 or slatini@dunellenlibrary.org

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Participants

- Adults with any long-term physical or mental health illness
- In the initial study participants had to have heart disease, lung disease, arthritis or stroke



Small Group Chronic Disease Self-Management Program - <u>Randomized Trial</u>

Demographic Data

- Age 62 years
- Male 27
- Education
- # of diseases
- 62 years 27%

2.2

14 years





Chronic Disease Self-Management

6-month Improvements in Health Outcomes

- Self-Rated Health
- Disability
- Social and Role Activities Limitations
- Energy/Fatigue
- Distress with Health Status
- Fewer Days of Hospitalization



All p<.05



This slide represents 50 or more studies between 1998 and 2017





National Study

- Longitudinal 1-year study
- 22 sites
- 1,100 people
- English and Spanish
- Under-represented over represented



Choosing and Evaluation Plan for Policy

Triple Aims

- Better Care
- Better Outcomes
- Lower Health Care Costs





CDSMP: Better Care

	Baseline Mean	12-month Mean	% Improvement †
Communication with MD (0 \sim 5) \clubsuit	2.6	2.9	9%**
Medication Compliance (0∼1) ↓	0.25	0.21	12%**
Health literacy (confidence filling out medical forms) (0~4) ↑	3.0	3.1	4%**

Notes. ⁺ These statistics control for covariates gender, age, race/ethnicity, education, number of chronic conditions.

- ↑ Indicates that larger scores are better for this measure.
- ↓ Indicates that smaller scores are better for this measure.
- ** *p*<0.01, *p<.05



CDSMP: Better Outcomes

	Baseline Mean	12-month Mean	% Improvement †
Self-assessed health (1~5) 🕹	3.2	3.0	5%**
PHQ depression (0∼24) ♥	6.6	5.1	21%**
Quality of life (0~10) 🛧	6.5	7.0	6%**
Unhealthy physical days (0~30) 🕈	8.7	7.2	15%**
Unhealthy mental days (0~30) 🕈	6.7	5.6	12%**

Notes. \clubsuit Indicates that larger scores are better for this measure

↓ Indicates that smaller scores are better for this measure.

** p<0.01, *p<.05



CDSMP: Lower Health Care Costs

	Baseline	12-month	Adjusted Ratios †
Percentage with emergency room (ER) visits in the past 6 months Ψ^*	18%	13%	0.68**
Number of ER visits among those with any ER visit	1.5	1.4	1.00
Percentage hospitalized in the past 6 months	14%	14%	1.01
Number of hospitalizations among those with any hospitalization	1.4	1.4	1.00

Notes. ⁺ Odds Ratio or Mean Ratio after controlling for covariates gender, age, race/ethnicity, education, number of chronic conditions.

- \clubsuit Indicates that larger scores are better for this measure
- ↓ Indicates that smaller scores are better for this measure.
- ** *p*<0.01, *p<.05



20 Years After Translation to Practice Derivative Evidence-based Workshops

- Diabetes Self-Management (English/Spanish)
- HIV Positive Self-Management (English/Spanish)
- Pain Self-Management (English/Spanish)
- Cancer Thriving and Surviving (English/Spanish)
- Building Better Caregivers (English/Spanish)



Online: CDSMP, Diabetes, Cancer, BBC

20 Years After the First Translation to Practice

- ► 35 countries
- 50 states
- Core component of ACL and CDC evidencebased programs for Seniors
- PAHO initiative
- Reach 50,000 to 75,000 people per year



Recent Findings

- Action-Planning
- Self-Tailoring
- Internet Engagement
- Computational Linguistics
- Depression
- Designing for Evidence and Policy





Action-Planning

- Confidence (SE) in completing a plan predicted completion
- 7 is a good cut point to predict completion or non-completion
- Completing plans (but not making them) predicted future health care status and behavior outcomes



Internet

 Posting but not reading is associated with outcomes – Helping others Active learning

 Computational linguistics – a new tool for qualitative learning





- Approximately 30% of all our study subjects over the years have been clinically depressed (PHQ 8-10)
- Self-management intervention for this group lowers depression by about 4.5 (similar to antidepressants)

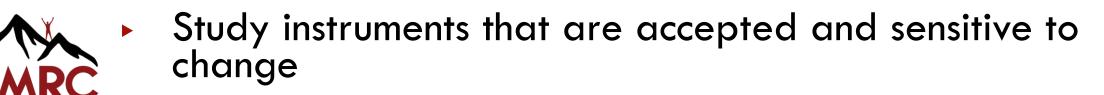


Designing for Translation

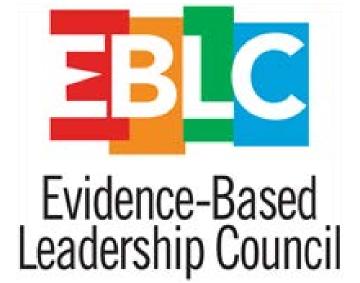
Choose a problem that is important

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- Choose an intervention that can be replicated consider costs
- Choose outcomes to study that are important for policy – i.e., costs, A1C, health status, return of investment
- Study populations that are representative of where you want to scale



EBLC Overview





Who

Leaders of nationally recognized evidence-based programs and leaders of community organizations using these programs

Mission

To increase delivery of programs that measurably improve the health and wellbeing of diverse adult populations

What is an evidence-based program?

Programs that have:

- Been tested in trials using experimental or quasi-experimental design
- Full translation in a community site
- Dissemination products have been developed and are available for public use



Lessons Learned

- Be open and be agile
- Do not always follow good advice
- Always design for translation
- Think outside the box, but not too far outside
- Mentors are important, as is being a mentor
- Play nice



Have fun – most of the time

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Now it's your turn. Thanks!





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