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Center for Healthy Aging

Chronic Disease Self-Management Program

Summary of National and State Translational Research Findings

The Chronic Disease Self-Management Program (CDSMP) was developed by Stanford University and has been implemented in 48 states, the District of Columbia, and Puerto Rico, as well as in more than 20 countries. The intervention was designed to help individuals with chronic diseases gain confidence and skills to better manage their health.

Participants learn about and practice decision making, goal setting, problem solving, and action planning. The peer-led program is designed for adults with chronic diseases such as arthritis, diabetes, depression, heart disease, high blood pressure, lung disease, or other ongoing health conditions. It consists of six weekly sessions offered in a variety of community-based settings.

A number of research studies have been conducted to evaluate the impact of CDSMP. The studies have consistently shown statistically significant improvements in a variety of health-related measures, including self-efficacy, self-reported health, healthy behaviors, and health distress.

Additionally, some studies have shown reductions in health care utilization, resulting in lower health care costs.

However, no study had been conducted nationally in a "real world" setting until 2010 when funding was provided from the American Recovery and Reinvestment Act for the first national translational or applied-research study. A brief description of the national study of CDSMP[i] (2010 – 2012) and its findings are summarized in the chart below.

It resulted in similar benefits as shown in earlier randomized clinical trials[ii iii], demonstrating an effective translation of research to practice[iv]. Furthermore, the study showed that CDSMP can positively influence all three components of the Institute of Healthcare Improvement's Triple Aim goals[v] of better health, better care, and lower costs.[vi vii]

National Study Shows CDSMP Helps to Achieve Triple Aim Goals

Description	Population Surveyed	Triple Aim Outcomes
Investigate how the CDSMP changes health outcomes, lifestyle behaviors, and health care service utilization over six and twelve-months	1,170 participants enrolled in 145 workshops in 17 states	**Better Health** • Improvement in self-reported health, number of days per week being moderately active, depression, health-related quality of life, unhealthy physical days, and unhealthy mental days • Improved symptom management in fatigue, pain, shortness of breath, stress, and sleep problems **Better Care** • Improvement in communication with doctors, medication compliance, and confidence filling out medical forms **Lower Health Costs - Preliminary Results** • $713.80 per person saving in emergency room visits and hospital utilization • $363.80 per person net savings after considering program costs at $350 per participant. This would result in a national savings of $3.3 billion if 5% of adults with one or more chronic conditions were reached.

State Outcome Studies Show Health Benefits of CDSMP

In addition to the national study, some states have conducted studies to determine health outcomes for CDSMP workshop participants. A brief description of those studies and the statistically significant findings are outlined below.

Alaska[viii]		
Brief Description	**Population Surveyed**	**Positive Outcomes**
Learn if self-management workshop attendees show improvements in body mass index, blood pressure, low density lipoprotein, or glycosylated hemoglobin (A1C)	131 persons with a mean age of 57 who participated in CDSMP and diabetes self-management education 100 persons with a mean age of 60 in a control group	• Loss of body weight • Lower A1C levels

Hawaii[ix]		
Replicate CDSMP in Asian and Pacific Islander communities in Hawaii	422 Caucasians, Asians, and Pacific Islanders attending CDSMP workshops	• Decrease in social and role activity limitations • Increase in communication with physicians • For Asians and Pacific Islanders, increase in self-rated health and time spent engaging in exercise • For Asians, reduction in health distress and self-reported physician visits with increases in time spent in aerobic exercise, ability to cope with symptoms, and self-efficacy
New Jersey[x]		
Learn whether CDSMP participants show improvements in health indicators	269 CDSMP participants representing racially and ethnically diverse populations with chronic conditions and/or their caregivers; 150 participants responded to post-workshop survey	• Improvement in general health • Reduced social/role activities limitation • Increased self-efficacy • Increased physical activity • Improved communication with physicians • Reduced health care utilization
Oklahoma[xi]		
Evaluate self-rated health, disability, health distress, social/role activities limitation, and other health-related measures	104 community-based CDSMP participants who completed both a pre-survey and post-survey	• Decreased health distress • Improvement in self-rated health • Increase in amount of time spent on exercise and use of cognitive symptom management

Oklahoma[xii]		
Determine the impact of CDSMP on residential care participants' health behavior, health status, and health care utilization	43 residents in independent living, assisted living, and skilled nursing care who participated in a CDSMP workshop	• Decrease in perception of self as disabled • Increase in self-rated health • Decline in hospitalization at skilled nursing facility
Oklahoma[xiii]		
Evaluate the impact of CDSMP on inmates' health behavior, self-efficacy, health status, diet, medical services utilization, and social behavior	231 inmates who attended workshops in three Oklahoma Department of Corrections minimum security sites	• Improvements in health distress, hopefulness, overall happiness • Better communication with physicians • Improved cognitive symptom management • Better self-rated health • Increase in exercise • Improvements in social tolerance and institutional misconduct
Oklahoma[xiv]		
Determine the impact of EnhanceFitness and CDSMP on various health indicators	279 EnhanceFitness and 220 CDSMP workshop participants	Improvements for CDSMP participants: • Self-management • Exercise • Communication with physicians • Self-rated health • Outlook on life • Healthcare utilization • Perceived self as disabled

Virginia[xv]		
Analyze health variables for nursing home eligible participants: blood pressure, number of hospitalizations, medications, depression score, and others	29 nursing home eligible PACE (Program of All-Inclusive Care for the Elderly) participants	• Depression scores declined significantly • Overall decrease in number of medications for the largest percentage of participants
Virginia[xvi]		
Determine if participants experience improvements in health status, health-related distress, pain, and other indicators	1,068 adult CDSMP participants	• Decreased health-related mental stress (distress) • Reduced levels of pain, fatigue, and shortness of breath • More frequent use of cognitive techniques for coping with emotional and physical symptoms and mental relaxation techniques to manage stress • Increase in amount of aerobic and non-aerobic physical activity

[i] Whitelaw, N., Lorig, K., Smith, M. L., & Ory, M. G. (March 19, 2013). *National Study of Chronic Disease Self-Management Programs (CDSMP)*. Retrieved 1/26/2015, from www.ncoa.org/cha

[ii] Lorig K, Sobel DS, Stewart AL, et al. *Evidence Suggesting That a Chronic Disease Self-Management Program Can Improve Health Status While Reducing Hospitalization: A Randomized Trial*. Medical Care. 1999;37:5–14

[iii] Lorig K, Ritter P, Stewart AL, et al. *Chronic Disease Self-Management Program: 2-Year Health Status and Health Care Utilization Outcomes*. Medical Care. 2001;39:1217–1223

[iv] Ory, M. G., Ahn, S., Jiang, L., Lorig, K., Ritter, P., Laurent, D., Whitelaw, N., & Smith, M. L. (2013). *National study of chronic disease self-management: Six-month outcome findings*. Journal of Aging and Health, 25(7), 1258-1274. doi:10.1177/0898264313502531

[v] Institute for Healthcare Improvement. *IHI Triple Aim Initiative*.

[vi] Ory, M. G., Ahn, S., Jiang, L., Smith, M. L., Ritter, P. L., Whitelaw, N., & Lorig, K. (2013). *Successes of a national study of the Chronic Disease Self-Management Program: Meeting the Triple Aim of Health Care Reform*. Medical Care, 51(11), 992-998. doi:10.1097/MLR.0b013e3182a95dd1.

[vii] Ahn, S., Basu, R., Smith, M. L., Jiang, L., Lorig, K., Whitelaw, N., & Ory, M. G. (2013). *The impact of chronic disease self-management programs: Healthcare savings through a community-based intervention*. BMC Public Health, 13:1141. doi:10.1186/1471-2458-13-1141

[viii] *Clinical Outcomes Associated with Self-Management Classes among Patients of an Urban Community Health Center,* Barbara Stillwater, Clint Farr.

[ix] *Adapting Stanford's Chronic Disease Self-Management Program to Hawaii's Multicultural Population*, Michiyo Tomioka, Kathryn L. Braun, Merlita Compton, Leslie Tanoue.

[x] *Take Control of Your Health: Chronic Disease Self-Management Program*, Manisha Agrawal, Nirvana Petlick, Margaret Koller. (See Appendix 1)

[xi] *The CDSMP in Oklahoma*, Zohre Salehezadeh, Naneida Lazarte Alcala, Candace Smith.

[xii] *The Impact of the Chronic Disease Self-Management Program on Elderly Residential Facilities' Residents*, OK State Office, area agency on aging. (See Appendix 2)

[xiii] *CDSMP in State Correctional Facilities,* Zach Root, Zohre Salehezadeh. (See Appendix 3)

[xiv] *CDSMP and EnhanceFitness*, Zach Root, Zohre Salehezadeh, David Lee (See Appendix 4)

[xv] *VA Riverside Health Systems Interim Report 2013,* Christine J. Jensen, Kim N. Weitzenhofer, Alyssa Spoor, (See Appendix 5)

[xvi] *VA CDSMP Evaluation Report September 2012*, The Virginia Department of Health (See Appendix 6)

Appendices 1 - 6