FOCUSED QUESTION
What are the health behavior and self-efficacy outcomes for older adults with chronic diseases who participated in a Chronic Disease Self-Management Program (CDSMP)?


CLINICAL BOTTOM LINE:

The researchers conducted this study to examine Chronic Disease Self-Management Program (CDSMP) outcomes. This study was conducted over 6 weeks using a non-randomized before-and-after design. The researchers evaluated 8 health behavior and self-efficacy outcomes related to living with a chronic disease. Adults who were 55 years of age or older, had at least one chronic disease, and were community-living, were recruited for study participation; 811 eligible participants completed this study.

The researchers found statistically significant improvements in participants’ self-efficacy to manage his or her own chronic disease, self-efficacy to manage emotions, increased time for physical activity such as walking, and improvements in social/role activity participation. No statistically significant improvements were detected for self-efficacy in communicating with a physician, using mental or physical symptom management, time spent in stretching or strengthening activity, or time for aerobic activity. With participation in group-based programs such as the CDSMP, improved outcomes in social and role participation and self-efficacy in managing emotions and one’s chronic health condition suggest potential for experiencing improvements in overall health and quality of life.

Limitations of this research include the lack of a control group, use of different program instructors across many settings, a possible halo effect, and inability to control for missing data.

RESEARCH OBJECTIVE (S)
List study objectives.

Evaluate the short-term effectiveness of CDSMP to enhance chronic disease management self-efficacy for patients with one or more chronic diseases to lower the perceived social activity or limitations in life roles and enhance the amount of time exercising to enhance functional activities.
DESIGN TYPE AND LEVEL OF EVIDENCE:
Level III: Nonrandomized, before-after design

Limitations (appropriateness of study design):
Was the study design type appropriate for the knowledge level about this topic? Circle yes or no, and if no, explain.

YES/NO
This study design was appropriate for the knowledge level about this topic because not much information is known about chronic disease management programs and their efficacy, particularly in community settings. The researchers implemented an evidence-based program in this before-after research study. Therefore, it was appropriate for the researchers to conduct a research study that could lay the foundation for future higher level of evidence to be gathered.

SAMPLE SELECTION
How were subjects selected to participate? Please describe.

Community agencies’ personnel recruited participants by putting up fliers and speaking to individuals about the program.

Inclusion Criteria
Participants had to have at least one chronic disease and be 55 years or older.

Exclusion Criteria
Participants were excluded from the study if they were not at least 55 years, did not put their age on the demographic survey, or did not complete the pre-post surveys.

SAMPLE CHARACTERISTICS
N = 1672

# % Dropouts 545 (33%). Participants were considered dropouts for having incomplete baseline or follow-up survey data. The data in the article appear to present that all participants completed the intervention.

#/ (%) Male 146 (18%) #/ (%) Female 653 (80.5%)

Ethnicity
African 230 (28.4%)
Hispanic 66 (8.1%)
White 381 (47%)

Disease/disability diagnosis All participants had at least one chronic disease.

Check appropriate group:
<20/study group
20–50/study group
51–100/study group
101–149/study group
150–200+/study group √
INTERVENTION(S) AND CONTROL GROUPS
Add groups if necessary

Group 1

| Brief Description | CDSMP classes were offered once a week for 6 weeks; each class lasted 2.5 hours. Topics included symptom management techniques (both chronic disease symptoms and emotional responses), problem solving and decision making skills, exercises, communication skills, and nutrition recommendations. Topics were covered at a level appropriate for a wide range of cognitive abilities. At the end of each session, participants created a goal with a plan on how to achieve it before the next meeting. Techniques proven beneficial for the adult learner, such as breaks, limiting distractions, group discussions, social interaction, and using peers as facilitators, were implemented into the sessions. |
| Setting | Workshops took place at 81 sites that varied in setting, including nursing homes, churches, clubhouses, community centers, and health clinics. |
| Who Delivered? | Two instructors led each session, with a total of 94 different instructors providing the intervention. Each session included two instructors, one health care professional and one peer adult with experience managing a chronic disease. Workshop instructors completed a 4-day, 20-hour CDSMP training. In addition, trainees were paired with an experienced instructor for their first workshop. Instructors followed a leader’s manual and script. Random fidelity monitoring was conducted to identify programs that drifted too far from the program protocol. |
| Frequency? | One time a week, for 6 weeks. |
| Duration? | Each class lasted 2.5 hours. |

Intervention Biases: *Circle yes or no and explain, if needed.*

Contamination

**YES/NO**

Co-intervention

**YES/NO** Because this study took place over a 6-week time period, there is no way to know what medications participants were on or what additional therapies/treatments they were receiving at the time of this study, if any. Thus, there is potential for a co-intervention bias.

Timing

**YES/NO**

Site

**YES/NO** This particular study used 81 sites to carry out the intervention, so there is a risk of a site intervention bias.
Use of different therapists to provide intervention

**YES/NO** Because of the number of participants and the vast geographical area in which this study was conducted, different professionals and non-professionals facilitated the CDSMP interventions. Thus, there is a potential for a therapist intervention bias.

**MEASURES AND OUTCOMES**
Complete for each relevant measure when answering the evidence-based question:
Name of measure, what outcome was measured, whether the measure is reliable and valid (as reported in article – yes/no/NR [not reported]), and how frequently the measure was used.

Health behavior and self-efficacy outcomes were measured via 8 selected items taken from *Outcome Measures for Health Education and Other Health Care Interventions* (Lorig et al., 1996). Reliability, validity, and correlational studies are reported in the Lorig et al., 1996 resource; Cronbach’s Alpha statistics were reported in this article as .91 to .92.

Name of measure, what outcome was measured, whether the measure is reliable and valid (as reported in article – yes/no/NR [not reported]), and how frequently the measure was used.

Demographics were collected from each participant, including age, number of chronic conditions, and self-rated health (using a single item from The National Health Interview Survey; NCHS, 1991). Also included were self-ratings of pain, fatigue, and so on. Reliability and validity of these questions were not reported.

Measurement Biases
Were the evaluators blind to treatment status? *Circle yes or no, and if no, explain.*

**YES/NO** Evaluators were aware of treatment status throughout the study.

Recall or memory bias. *Circle yes or no, and if yes, explain.*

**YES/NO** Participants were asked questions about their experiences, relying on recall and memory. The participants’ responses were not verified.

Others (list and explain):  

**RESULTS**
List results of outcomes relevant to answering the focused question
Include statistical significance where appropriate (\(p < 0.05\))
Include effect size if reported

| Self-efficacy to manage disease | \(p = .001\) |
| Self-efficacy to manage emotions | \(p = .026\) |
| Self-efficacy to use mental and physical techniques to manage symptoms | \(p = .487\) |
| Self-efficacy to communicate with physician | \(p = .186\) |
Perceived social/role activities limitations  $p = .001$
Time stretching  $p = .426$
Time walking  $p = .008$
Time doing other aerobic activities  $p = .860$

Was this study adequately powered (large enough to show a difference)? *Circle yes or no, and if no, explain.*

YES/NO

Were appropriate analytic methods used? *Circle yes or no, and if no, explain.*

YES

Were statistics appropriately reported (in written or table format)? *Circle yes or no, and if no, explain.*

YES

CONCLUSIONS

State the authors’ conclusions that are applicable to answering the evidence-based question.

Results indicated significant improvements were achieved for perceived role limitations, self-efficacy related to disease management and managing emotions, and time spent walking. Previous studies have found similar results and indicate that if these behaviors are sustained, they will continue to positively affect individuals’ health and thus reduce the utilization of health care services over time. Additionally, if this program is implemented fully, it can be expected to improve the quality of life of the participant and their caregivers and improve their independence in functional activities of everyday life. Further research should be aimed toward increasing the longevity of these programs and studying the long-term effects of CDSMP.

References


This work is based on the evidence-based literature review completed by Abby Wicklund, MOTS; Katelyn Mari, MOTS; and Jan Stube, PhD, OTR/L, University of North Dakota.


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