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# Evaluation of the chronic disease self-management program (CDSMP) among chronically ill older people in the Netherlands

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**Abstract**

Many chronically ill older patients in the Netherlands have a combination of more than one chronic disease. There is therefore a need for self-management programs that address general management problems, rather than the problems related to a specific disease. The Chronic Disease Self-Management Program (CDSMP) seems to be very suitable for this purpose. In evaluations of the program that have been carried out in the United States and China, positive effects were found on self-management behaviour and health status. However, the program has not yet been evaluated in the Netherlands. Therefore, the aim of this study was to evaluate the short-term and longer-term effects of the program among chronically ill older people in the Netherlands. One hundred and thirty-nine people aged 59 or older, with a lung disease, a heart disease, diabetes, or arthritis were randomly assigned to an intervention group (CDSMP) or a control group (care-as-usual). Demographic data and data on self-efficacy, self-management behaviour and health status were collected at three measurement moments (baseline, after 6 weeks, and after 6 months). The patients who participated rated the program with a mean of 8.5 points (range 0–10), and only one dropped out. However, our study did not yield any evidence for the effectiveness of the CDSMP on self-efficacy, self-management behaviour or health status of older patients in the Netherlands. Because the patients who participated were very enthusiastic, which was also indicated by very high mean attendance (5.6 out of 6 sessions) and only one dropout, it seems too early to conclude that the program is not beneficial for these patients.


*Keywords:* Self management; Elderly; Chronic disease; Randomized trial; The Netherlands

## Introduction

It may be questioned whether the current Dutch medical care system, with its main focus on acute care and cure, is sufficiently responsive to chronically ill patients who often will have no hope of recovery, but have to cope with an incurable long-term disease. As in other Western societies, the number of chronically ill older people in the Netherlands is increasing. Older people are often not only confronted with a chronic disease, but also with comorbidity (Westert, Satariano, Schellevis, & van den Bos, 2001). The impact of chronic conditions on health is substantial, it varies according to condition, and it usually affects all aspects of functioning and well-being (Baanders, Calsbeek, Spreeuwenberg, & Rijken, 2003; Gijsen et al., 2001; Heijmans, Rijken, Schellevis, & van den Bos, 2003; Kempen, Jelicic, & Ormel, 1997; Kempen, Ormel,

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Brilman, & Relyveld, 1997; Ormel, Kempen, Brilman, & Van Sonderen, 1996; Stewart, Greenfield, Hays, Wells, Rogers et al., 1989). Chronic diseases may lead to disabilities, which can have a negative effect on the ability of older people to care for themselves (Fried & Guralnik, 1997).

This increase in the number of older people with chronic conditions implies a need for new means of delivering care, and teaching patients self-management behaviour to cope with their disease could be an element in these new means. However, because many older patients have a combination of more than one chronic disease, there is a need for self-management programs that focus less on the problems related to one specific disease, and more on general management problems that are the same for patients with different chronic conditions, such as fatigue, pain, anxiety, etc. One program that meets these criteria is the Chronic Disease Self-Management Program (CDSMP), which was developed by Lorig and co-workers at Stanford University in America. To our knowledge, it is the only self-management program for (older) people with more than one chronic disease.

The CDSMP has been evaluated in the United States and in China (Fu, Fu, McGowan, Shen, Zhu et al., 2003; Lorig, Ritter, Stewart, Sobel, Brown et al., 2001; Lorig, K.R., et al., 1999; Lorig, Sobel, Ritter, Laurent, & Hobbs, 2001). The study samples in these evaluations mainly involved older adults (mean age 64.2, range 40–90), and mainly concerned patients with heart disease, lung disease, diabetes, or arthritis. In all evaluations, except for one, self-efficacy was measured. Other outcome measures were self-management behaviour, health status, and health care utilization. However, there was no standard measurement of outcome variables such as self-efficacy and health status. The CDSMP has been found to be effective in maintaining and improving these abovementioned outcomes, although not consistently so in all studies. The effect sizes of most of these outcomes were small to moderate. The CDSMP has not yet been evaluated in the Netherlands.

The aim of the present study was to evaluate the short-term and longer-term effects of the CDSMP among chronically ill older people in the Netherlands. Knowing from previous studies that the program can have positive effects on self-efficacy, self-management behaviour, and health status, we expect to find positive effects in our sample of patients aged 59 and older with one or more chronic diseases.

## Methods

The procedures, research risks, and associated safeguards for this study were approved by the Independent Review Board of the University Medical Center in Groningen.

### *Participants*

Between May 2003 and May 2004, patients attending the Internal Medicine outpatient clinic at the University Medical Center in Groningen were personally invited to participate in the study. Participants were also recruited through announcements in the media and in the magazines of various patient associations. Eligibility criteria were: being aged 59 or older; having angina pectoris or heart failure, COPD or asthma, or arthritis, or diabetes; ability to communicate adequately in Dutch; availability to attend a six-week course. Patients with a life-expectancy of less than one year, or already attending a disease-specific self-management program, or participating in another study, or who were permanent residents of a nursing home were excluded from the study. In addition to having a heart disease, lung disease, arthritis, or diabetes, patients could also have other (minor) diseases such as eczema or an allergy. The majority of the patients had a minor disease as well.

Informed consent was obtained from patients who were eligible and willing to participate in the study. Each time informed consent was obtained from thirty patients, which took about four months, they were sent a baseline questionnaire. After the patients returned the questionnaire, they were randomised: within each diagnostic group, i.e., disease group, participants were assigned either to the intervention group or the control group. In this way, six consecutive blocks of about thirty people with various diseases were formed during the inclusion period, with equal numbers in the intervention group and the control group. When participants knew each other beforehand, they were randomised together, so that both of them were either in the intervention or in the control group; this avoided contamination. The intervention group received the CDSMP, and the control group received care-as-usual. After the last measurement, the control group also