

# **Chronic Disease Self-Management Program**

**Vancouver and Richmond, BC**

**Evaluation - June 2003**

## **Method**

This evaluation of the Chronic Disease Self-Management Program was conducted by a research team from the University of Victoria - Centre on Aging, headed by Patrick McGowan, PhD. The evaluation is a quantitative study based on the pre-course and six-month follow-up questionnaires.

## **Description of Study**

Program participants were requested to complete a questionnaire (Appendix A) before they started the program and again six-months later. During the period between September 2001 and April 2003, 228 participants completed the pre-program questionnaire. Thirty-five participants had not completed the post-program questionnaire when it had been mailed to them six-months later. As well, 61 participants have not been requested to complete the post-questionnaire because the six-month time period had not been reached. This analysis involves a pre-program and six-month post- program comparison of outcome measures completed by 132 course participants.

The questionnaire contained four types of outcome measures:

- 1) Self-management behaviors;
  - Amount of time doing cognitive symptom

- 4) Medical Care Utilization (last six months);
- Number of doctor appointments
  - Number of visits to hospital emergency room
  - Number of times hospitalized
  - Number of nights in hospital,
  - Number of visits to other health professionals.

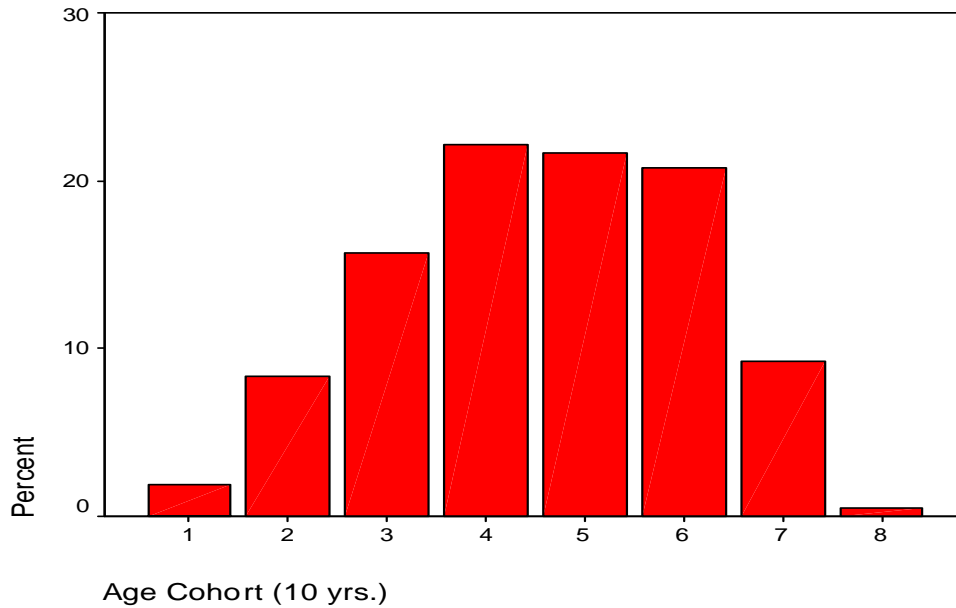
A description of the outcome measures is contained in Appendix B.

Descriptive analyses were conducted with data collected from the 132 participants who completed both the pre-course and six-month post-program questionnaire. This analysis was conducted in June 2003.

**Findings**

The majority of persons (81%) indicated that English was their mother tongue, 40% were married, and 58% of persons had more than one chronic health condition. The most common health condition was arthritis or other rheumatic disease followed by heart disease. Participant ages ranged from 26 to 90 years with the average being 60 years (SD=15) (see Table 1). The mean education level was 14 years (SD=3). Eighty-one percent of participants were female.

**Table 1. Percent of CDSMP participants in 10-year age cohorts.**



Note: 10-Year Age Groupings begin at 20-29.

Pre- and six-month post-program questionnaires were completed by a total of 132 persons. Health measure scores were computed and compared between the two time periods to calculate whether differences were statistically significant. Table 2 shows the pre- and post-program scores on each measure as well as t-scores and significance levels.

Table 2. Pre- and six-month post-program scores on CDSMP outcome measures (n=132).

MEASURES	Pre	Post	T	Sig. (2-tailed)
<b><i>Self-Management Behaviors</i></b>				
Cognitive symptom management	1.54	1.56	-.22	.826
Communication with physician	2.94	2.97	-.29	.772
Time doing aerobic exercises	.94	.95	-.08	.940
Time doing stretching/strengthening	1.57	1.77	-1.63	.107
<b><i>Self-efficacy Measures</i></b>				
Self-efficacy to manage disease symptoms	5.18	5.87	-2.98	<b>.004</b>
Self-efficacy to manage the disease	6.10	6.39	-1.26	.210
<b><i>Health Status</i></b>				
Self-Rated Health	3.19	2.92	3.68	<b>.000</b>
Disability	.36	.34	.623	.534
Social/Role Activities Limitations	1.74	1.53	2.39	<b>.018</b>
Depression	1.25	1.17	2.16	<b>.033</b>
Energy/Fatigue	2.13	2.45	-3.87	<b>.000</b>
Health Distress	2.20	1.77	4.22	<b>.000</b>
Fatigue Level	6.01	4.68	1.79	.076
Shortness of Breath	2.48	2.12	2.13	<b>.035</b>
Pain Severity	4.26	4.01	1.27	.207
<b><u>Illness Intrusiveness</u></b>				
Intrusiveness of the illness on:				
- physical well-being and diet	3.54	3.27	1.74	.085
- work and finances	3.82	3.53	1.87	.064
- marital, sexual, and family relations	2.30	2.21	.687	.494
- recreation and social relations	3.21	2.98	1.76	.081
- other aspects of life	2.52	2.38	.881	.380
<b><i>Medical Care Utilization (last 6 months)</i></b>				
- Number of doctor appointments	7.60	6.77	1.13	.261
- Number of visits to hospital emergency room	.35	.22	.918	.360
- Number of times hospitalized	.13	.07	1.18	.241
- Number of nights in hospital	.77	.07	2.38	<b>.019</b>
- Number of visits to other health professionals	4.66	4.21	.582	.562

Statistically significant changes (bolded) were observed in eight outcome measures. At six-months post-program, participants:

1. had a higher level of self-efficacy to manage their symptoms;
2. believed they had better health;
3. were less limited in their daily activities;
4. were less depressed;
5. had more energy;
6. were less distressed with their health condition;
7. were experiencing less shortness of breath; and
8. had spent fewer nights in hospital than they had in the previous six-month period.

With respect to the Illness Intrusiveness scores, even though none of the changes in the five subscales reached statistical significance, all changes were in the desired direction. This is also the case for each of the five Health Care Utilization Measures – a statistically significant change occurred on only one important outcome measure (number of nights in hospital), but there were improvements in all these measures.

**The Chronic Disease Self-Management Program is supported by the Vancouver Coastal Health Authority “SMART” Fund. For more information about this study or previous studies on the CDSMP, please contact Patrick McGowan at (604) 940-3574 or by email at [mcgowan@dccnet.com](mailto:mcgowan@dccnet.com) .**