

The Use Of The Modified CHAMPS To Measure Change In Physical Activity Following An 8 Week Cancer Nutrition Rehabilitation Program



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Background

Cancer and the treatment thereof cause functional decline in patients.

The McGill Cancer Nutrition Rehabilitation Program (CNRP) consists of a collaborative, interdisciplinary team of professionals who, using a time-limited approach, work to empower patients to function optimally, thereby improving their quality of life.

One of the goals of the CNRP is to improve the physical activity of patients through bi-weekly physiotherapy sessions and bi-monthly (or more frequently) visits to the occupational therapist.

Objective

To measure the effectiveness of an 8 week out-patient CNRP in increasing physical activity of cancer survivors.

Method

Participants: Patients who were enrolled and completed the CNRP between April 2007 and May 2008 (see Table 1).

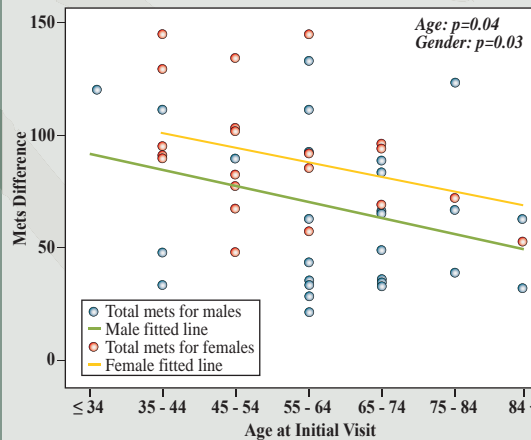
Measure: The Community Healthy Activities Model Program for Seniors (CHAMPS)

A physical activity questionnaire developed to evaluate the outcome of interventions that were used to increase physical activity of seniors was modified (see Table 2).

Procedure: The CHAMPS was administered by the occupational therapist pre and post CNRP.

Results

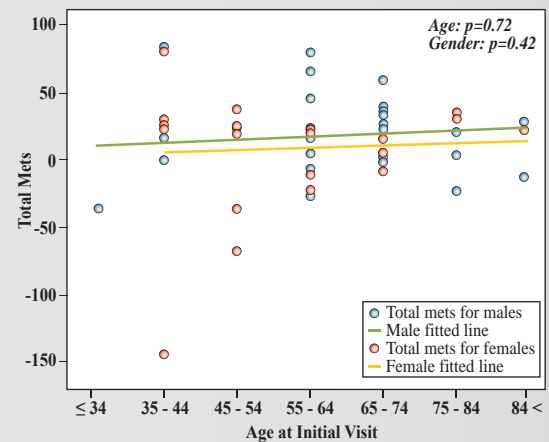
Figure 1:
Effect of age and gender on METs/week at initial visit



At initial visit, physical activity significantly decreases (6 METs/week) when age increases by 10 years.

Women are significantly more physically active than men (19 METs/week) at all ages.

Figure 2:
Effect of age and gender on MET difference pre-post CNRP



There is no significant difference in METs pre and post CNRP evaluations in relation to age and gender.

There is a subgroup of patients whose physical capacity deteriorated from pre to post CNRP.

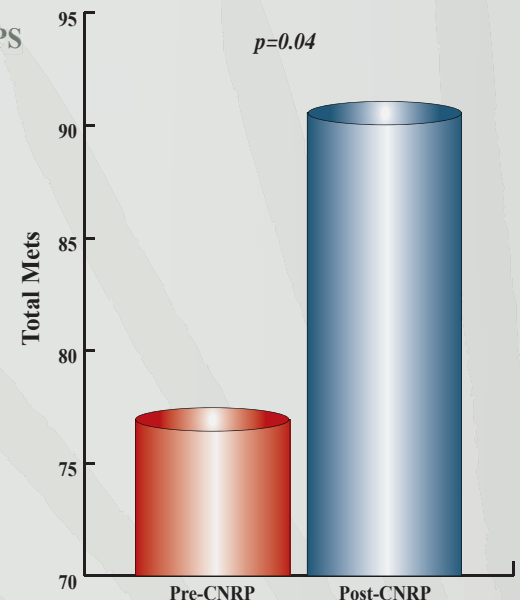
Table 1:
Demographic and clinical characteristics of participants

Variable		# of participants N=51	%
Age	24 to 34 yrs	1	1.9
	35 to 44 yrs	8	15.7
	45 to 54 yrs	8	15.7
	55 to 64 yrs	14	27.5
	65 to 74 yrs	12	23.5
	75 to 84 yrs	5	9.8
	> 85 yrs	3	5.9
Gender	Male	29	57
	Female	22	43
Cancer Diagnosis	Breast	9	17.6
	Head and neck	8	15.7
	Hematological	5	9.8
	Lung	4	7.8
	Hepato-biliary	4	7.8
	Prostate	4	7.8
	Pancreas	3	5.9
	Unknown primary	3	5.9
	Ovary	2	3.9
	Other	9	17.6

Table 2:
Examples of activities rated in the modified CHAMPS

MODIFIED CHAMPS- ACTIVITY QUESTIONNAIRE							
THINK OF A TYPICAL WEEK, IN THE LAST WEEK							
HOW MANY HOURS DID YOU SPEND DOING:							
	MET value	<1	1 - 2.5	3 - 4.5	5 - 6.5	7 - 8.5	>9
Sedentary activities							
Reading	1						
Watching television	1						
Light activities:							
Walking leisurely	2.5						
Running errands	2.5						
Moderate activities:							
Doing light housework	3						
Light strength training	3						
Strenuous activities:							
Aerobic exercises	4						
Heavy gardening	4						

Figure 3:
Difference in METs pre-post CNRP



There is a significant difference in physical activity between pre and post CNRP evaluations.

The difference is an increase of 14 METs after participation in the CNRP.

Conclusion

At initial evaluation, physical activity decreases with increasing age.

Women are consistently more active than men.

Participation in an 8 week out-patient CNRP improves physical activity of cancer survivors.

Limitations

The modified CHAMPS may be a useful tool to measure change in levels of physical activity in a cancer population however its value is limited by recall effect.

The original CHAMPS does not allow precise recording of activities performed >9 hours therefore we suggest recording the exact number of hours of activity performed for more than 9 hours.

References

Stewart A., Mills K., King A. et al. Community Healthy Activities Model Program for Seniors. Medicine & Science in Sports & Exercise, 2000; p.1126-1141.