

A TWO-DIMENSIONAL APPROACH FOR PHYSICAL ACTIVITY PROMOTION BASED ON THE STAGES OF CHANGE

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Interventions to change health behaviour such as physical activity are considered to be most effective when meeting the needs and motivation of individuals in the target group. Therefore, the Transtheoretical Model of Change is used as a theoretical background in our computerized intervention system to be implemented on the internet. The stages of change as the key construct of the Transtheoretical Model relate to defined target behaviours. The national recommendations for health enhancing physical activity in Switzerland are at least half an hour of activities with at least moderate intensity on all days or virtually all days of the week. People already active can further improve their health by taking up a training programme for cardio-respiratory fitness, consisting of activities with vigorous intensity for 20 to 60 minutes at least three times a week. The counselling procedure in our programme has to take into account both possible target behaviours in order to create individually tailored physical activity messages respecting the participants' preferences. The aim of the presented study is the development and the validation of a two-dimensional counselling approach including both target behaviours.

A computer assisted telephone interview CATI was carried out in women and men of at least 15 years of age from April to June 1999. In a random-random-procedure sub-samples of comparable size were drawn for the German, French and Italian speaking parts of Switzerland. In order to attain representative prevalence data, the results were weighted accordingly to the language region, age, gender and household size distribution in the Swiss population.

1'529 interviews were realised (participation 64.2%). 25.6% of the participants were active in the sense of the recommendations for moderate intensity activities (but did not exercise regularly), 12.3% reported vigorous intensity exercise at least 3 times a week for 20 minutes (but not regular activities with moderate intensity), 25% were active both in the sense of the recommendations for moderate and vigorous intensity activities, and the remaining 37.1% were classified as inactive or insufficiently active. The stage distributions for both target behaviours are given in table 1. A two-dimensional promotional approach including the stages of change for both target behaviours is suggested in table 2.

Intensity Level	Moderate Intensity					
	PC	C	P	A	M	
Vigorous Intensity	PC	6.1	0.8	3.7	0.2	4.3
	C	0.3	1.2	0.7	0.1	1.6
	P	7.2	3.4	13.4	2.0	17.5
	A	0.2	0.1	2.0	0.9	1.4
	M	2.1	0.2	7.9	0.7	22.2

Table 1. Stages of change for physical activity in Switzerland, weighted percentage values

Promotional Strategy	Moderate Intensity					
	PC	C	P	A	M	
Vigorous Intensity	PC	↑	↑	↑	←	
	C			↑	←	
	P	←			←	
	A	←				
	M	←				

Table 2. Stages of change and promotional strategies for two target behaviours. ↑: emphasizes lifestyle activities. ←: emphasizes fitness activities

(PC=Precontemplation; C=Contemplation; P=Preparation; A=Action; M=Maintenance)

If only the target criteria for moderate intensity activities are used to describe the physical activity behaviour in Switzerland, 12.3% of the active population are misclassified as insufficiently active. The two-dimensional approach has the potential to describe behaviour and intentions regarding physical activity more adequately and to take into account participants' preferences in the promotion of physical activity. This approach will be validated in an additional study in spring 2000, where decisional balance, self-efficacy and processes of change will be assessed in addition to the stages of change. Preliminary results of this study will be presented.

Reference:

Martin-Diener, E. Melges, T. & Martin, B.W. (2000). A two-dimensional approach for physical activity promotion based on the stages of change. In European College of Sport Science, *Book of abstracts of the 5th annual congress of the European College of Sport Science*, (p. 482). LIKES research center, Jyväskylä, Finland