

# Physical activity on prescription: the health outcome after physiotherapy support in wellness centres

An observational quasi-experimental study

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## **COVER STORY**

### *Public Health Perspective*

Physical inactivity is a public health problem and is classified according to World Health Organization (WHO) as one of the ten most significant risk factors for premature death in the developed world. Physical inactivity can lead to health problems with increased risk to achieve lifestyle-related diseases and premature mortality.

Physical activity on prescription (PAP) per se, is a method used in the Swedish health care system with proven effects to increase patient's physical activity level. The aim of PAP-treatment is to reduce sedentary time and increase physical activity level. Physical activity is one of four prioritised areas in the Swedish National Board of Health and Welfares' national guidelines for lifestyle-related methods of preventing disease. Further the Swedish National Board of Health and Welfare declares that the healthcare system has to do an effort in this area. Additional resources are needed in the work with patients to comply with the health recommendation of 30 minutes of physical activity per day.

The healthcare system offer patients with insufficient physical activity level counselling to increase physical activity level with the adjunct of PAP, as well as special follow-up program.

Health professionals seem to prescribe PAP within the healthcare, however PAP still remains an underused treatment method in Swedish health care. During the past years PAP-treatment has developed and continues to submit proven evidence as an effective factor for improving health. In addition, the burden of illnesses related to physical inactivity costs society in healthcare costs. According to the European Union Public Health Information System, the estimates cost burden that physical inactivity imposes on the country are about 150-300 EUR per citizen.

Physical activity per se can both prevent disease and promote health. If every human been followed the recommendation, the population health would improve and the healthcare cost would decrease. The healthcare system is in a strong position to increase physical activity. First, people contact healthcare system on regular basis and second people trust the healthcare providers. PAP-treatment is a method used by Swedish healthcare system in order to achieve an increase of the physical activity level in the population. With this method, patients receive an individualized prescription concerning sedentary time, daily physical activity and exercise in a group or in an individual setting. The individually dosed physical activity should be prescribed according to FYSS (Physical Activity in Prevention and Treatment Disease).

Physiotherapists working with physical activity as a treatment strategy could provide a more effective way of treatment to improve lifestyle related health issues and as well as to prevent and treat several illnesses like diabetes or cardiovascular diseases.

### Ethics

Physical activity related issues can be ethically problematic when categorizing people in groups according to their physical fitness or regarding disability related issues. People may defend them self towards physical activity recommendations that they have to be physical inactive and not-healthy due to other illness or diseases. Despite the fact that a prescription is needed in order to enter the physical activity intervention program in Sweden, the perspective should be universal no matter physical or mental condition of the population. Physical activity is suitable for all ages from childhood to the oldest old adults, for both sexes, for all ethnicities and religions and of course is also recommended for people with disabilities. More research is needed in the topic of physical activity and health promotion in both national and international perspective.

## Conclusion

People increased their physical activity level after PAP treatment given by a physiotherapist at wellness centres and also increased their health status score. There is a small correlation between increasing self-reported health status and enhanced support by physiotherapists in wellness centres. A broader perspective of health monitoring such as following the participants in longer periods of time is missing in research. This may result in a more strong health related perspective on health and physical activity promotion. PAP aim to prevent and promote healthy behaviours and participants seem to adopt different life-style behaviours regarding PA after their participation in such treatment programs as PAP.

**THE SCIENTIFIC ARTICLE / MANUSCRIPT**

**Physical activity on prescription: the health  
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wellness centres**

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## ABSTRACT / SUMMARY

**Introduction:** Specially trained physiotherapists in wellness centres can support patients who need to increase their level of physical activity (PA). Patients receive a physical activity prescription (PAP) from health professionals in the primary healthcare system in order to enter a PAP-program in wellness centres to increase their PA level and reduce sedentary time.

**Aim:** The primary aim was to assess the PA-level and sedentary time in patients who received prescription for PA, after a 6-month PAP-intervention given by physiotherapists in wellness centres. The secondary aim was to evaluate the patients' self-reported readiness to change PA-level and the third aim was to evaluate if there were any covariance between PA-level, physiotherapy support and health.

**Method:** During year 2014, 114 patients (74 female) who received PAP answered a questionnaire about PA level, a self-rated health status questionnaire (EQ-5D) and questions about their health and readiness to change PA. Planned interventions with dosing PA developed by PAP-physiotherapists for patients who needed enhanced support. Patients received information and suggestions and guided to activities for groups, individuals and risk groups. After the 6-months follow-up, the intervention was re-evaluated.

**Results:** The physical activity level ( $p < 0.001$ ), the answers from health questionnaire EQ-5D ( $p < 0.001$ ) and the reliance of physical activity ( $p = 0.016$ ) were improved. Patients seem to visit and ask for support from PAP-physiotherapists or received telephone support. The sense from open ended question implied that patients improved their self-perceived health status after the PAP intervention. The increased PA level is correlated with the increased score on health questionnaire EQ-5D.

**Conclusion:** The increased level of physical activity after physical therapy monitoring by PAP-physiotherapists is related with health improvement. Public health policy makers and governments should focus and invest on this treatment method in order for populations to adopt an increased level of PA and thereby increase health behaviours.

Keywords: physical activity, prescription, physiotherapy, health promotion

## Introduction

Physical inactivity is a public health problem and is classified according to World Health Organization (WHO) as one of the ten most significant risk factors for premature death in the developed world. Physical inactivity can lead to health problems with increased risk for lifestyle-related diseases and premature mortality (1, 2). PA is defined as “any bodily movement produced by skeletal muscles that result in energy expenditure”(3). The WHO recommends at least 150 minutes of moderate-intensity aerobic PA per week or 75 minutes of vigorous-intensity PA per week (4). In addition, several public health guidelines recommend people to take at least 10,000 steps per day (5). Despite the benefits of PA, a high percentage of the population, mostly in the developed world, do not meet the WHO recommendations, reporting a high proportion spent sedentary and therefore their PA level is very low (6-8).

Sedentary time, including sitting and lying down, is beside of a low PA-level, an independent risk factor and possibly increases the risk of all-cause and cardio vascular disease mortality (9, 10). An intervention aimed to reduce sedentary time and increase PA level with the perspective to gain a physical active lifestyle may lead to an improved public health, increased life expectancy and decreased morbidity (11, 12).

In 2006, the Nordic governments presented a Nordic plan of action with the aim of improving health and quality of life through lifestyle changes. Focus was on developing sustainable and motivating methods and environments to increase citizens’ awareness of the importance of a healthy diet and a sufficient PA-level for health benefits (13). In 2011 the Swedish National Board of Health’s national guidelines for disease prevention methods was published (14). These guidelines recommended the health care to use structured interventions to promote a sufficient PA level for the public (15). Physical activity on prescription (PAP) is one such treatment strategy (16, 17).

Registered health professionals are able to work with PAP-treatment (14, 15). The health professionals need to take all parts of the patient's life into account and in a dialogue with the patient, agree about the process leading to gain a sufficient PA level through planned activities. With this method, patients receive an individualized prescription including recommendations for sedentary time, daily PA and exercise in a group or individual setting. The individually prescribed PA level should be based on the dose recommendations in Physical Activity in Prevention and Treatment of Disease (FYSS) (15).

Physiotherapists can effectively counsel patients with respect to lifestyle behavioural change, at least in the short term. Further, the physiotherapist can be an effective health counsellor for individually based or team based counselling for PA increment aiming to improve behavioural outcomes in general (18). Compared with physicians and nurses, physiotherapists tend to be confident about counselling and promoting PA (19).

For a patient in the need of an enhanced support to increase PA-level, there are PAP-physiotherapists in wellness centres (PAP-centres) working with the PAP-process with the patient. The support from PAP-physiotherapist includes a structured motivational interviewing with an individualized dosage of PA and sedentary time. Furthermore, an individualized follow-up with visits at the PAP-centre or telephone support is planned and conducted during a 6-months period (15).

The primary aim for this study was to assess the PA-level and sedentary time in patients who received prescription for PA, after a 6-month PAP-intervention given by physiotherapists in wellness centres. The secondary aim was to evaluate the patients' self-reported readiness to change PA level and the third aim was to evaluate if there were any covariance between PA-level, physiotherapy support and health.

## **Methods**

### ***Study design***

A quantitative observational quasi-experimental design was reinforced by questions qualitatively assessed using content analysis. This study is part of an existing PAP-work where a self-reported questionnaire filled in by patients at baseline and 6-months follow-up. Also questionnaires were sent to participants by mail to fill them in or participants answer them at the meeting with PAP-physiotherapist. The study was developed in Swedish language and then translated to English for the purpose of this paper.

### ***Study population***

In 2014, when this data collected, a total sample, of 203 patients who received PAP from the health care centres in the central and western part of Gothenburg, received contact with PAP-physiotherapist at the PAP-centres. The patients, 23-93 years old, received PAP due to a number of diagnoses. Most frequently occurring was musculoskeletal, cardiovascular and metabolic diagnoses. Patients contacted the physiotherapists in order to arrange a meeting which was free of charge.

### ***Procedure***

In the first meeting with the PAP-physiotherapist a procedure using motivational interviewing (MI) was set up to identify patients' needs, preferences and thoughts about PA and to be able to motivate and inspire the patient to become more physically active (20, 21). The MI took place in specific meeting rooms available in every PAP-centre. PAP physiotherapists prescribed the most suitable PA for each patient by using the FYSS reference book (15) and also by using the information from the MI. A plan for PA was set for all patients who participated in the intervention. Further the patients received individualized intervention and support if needed. The plan could consist of suggestions and information about gymnastics,

fitness programs and other physical activities. The intervention lasted 6 months and ended up with an evaluation and a plan with further PA for the patient if was necessary or asked.

## **Measures**

A questionnaire was developed and used for PAP-intervention in which participants answered both open-ended and multiple choice questions. In this study we analysed parts of the questionnaire, focused on the measurements of self-reported PA level, sedentary time and self-rated health status assessed with European Quality of Life-5 Dimensions (EQ-5D) health questionnaire. Open-ended questions about the patients' experiences regarding physical and general health and three self-reported questions about readiness to change PA scales were also analysed. The below described assessments were performed at baseline and after the six months intervention period.

### ***Physical activity***

PA was measured with The National Board of Health and Welfare physical activity questions consisting of two self-rated questions about moderate-intensity versus vigorous-intensity PA during a week. The outcome was referred to as 'every-day PA'. The questions were answered by specifying amount of PA minutes for each day of the week. Total activity minutes were calculated as the number of minutes of vigorous-intensity PA multiplied by 2 together with the addition of the number of moderate-intensity daily activities (14, 22).

### ***Health related quality of life questionnaire (EQ-5D)***

One question of the health questionnaire EQ-5D was used in order the patients indicate their health situation. Participants called to answer the question '*How is your health today?*' using

the visual analogue scale (VAS). VAS is a scale from 0 (worst imaginable health) to 100 (best imaginable health). Their answers were related to the particular calendar day (23-27).

### ***Sedentary time***

International physical activity questionnaire (IPAQ) measured sedentary time and the level of PA during the last seven days (28). For this study the questions assessing sedentary time were used and the patients self-evaluated their sedentary time in daily minutes, during the last seven days as a total (29).

### ***Readiness to change of physical activity***

Three questions with a scale from 0 (minimum) to 100 (maximum) were used in order patients to assess the importance, the self-efficacy and the preparedness to be able to change the level of PA (30).

### ***General health***

For patients to describe their current health status were asked to give written answer, expressing their own thinking, to three open-ended questions. ‘How do you feel in your body?’, ‘How did physical activity affect your physical health?’ and ‘How did physical activity affect you mental health?’

## **Data analysis**

### *Statistical analysis*

Data were analysed through IBM SPSS Statistics for Windows, Version 22.0. (Armonk, NY, USA) and Microsoft Excel 2010, (Redmond, Washington, United States). Interval-, and ratio data was presented as mean (m), standard deviation (SD) and 95 % confidence interval (CI) and nominal-, and ordinal data are presented as median (md) and minimum - maximum (min - max). The differences between baseline and at 6-months follow-up were assessed with paired sample t-test for PA level. For the score of health questionnaire EQ-5D and the score of self-reported readiness to change for physical activity, Wilcoxon signed rank test was used.

### *Qualitative analysis*

Qualitative data was analysed using a content analysis approach. This design engaged participants in describing and analysing their thinking and feeling about their health. Content analysis is a method of analysing written, verbal or visual communication messages (31). The key feature of content analysis is that the many words of the text are classified into much smaller content categories (32). Open ended and multiple choice answers were analysed as the sense of health by feelings in patients' body. Two main categories and sub-categories were developed and also a numeric code for each sub-category. Numeric codes were analysed in SPSS in order to measure the frequencies of the three sub-categories.

### *Ethics*

The study was conducted as a survey of the existing clinical PAP-work. According the declaration of Helsinki medical research is subject to ethical standards that promote and respect all human subjects and also protect their health and rights (33). All participants were informed orally about the questionnaire, the purpose of the overall research plan, the aim of

the treatment and the aim of the research. Participants were also informed that participation was voluntary and that withdrawal from the study for any reason was acceptable at any time. Beside the oral approval, a written approval was signed by every patient. Furthermore the participant was informed that personal elements as names, addresses would not be included in the material of analysis and that their answers would be kept confidential by using codes. The codes developed for each patient representing the PAP-centre the patient was in contact with.

## **Results**

### *Descriptive Statistics*

#### *Sample*

Of the 203 patients who received PAP, 114 were included in this investigation. The dropout rate from missing data and from a system error in one of the PAP-centres is presented in Figure 1.

#### *Baseline characteristics*

The mean age of the study population was 63 years old, 65% were female (Table 1). The origin of prescription was 75% from health care centres. Health issues and illnesses that reported from the sample were: musculoskeletal 86.7%, psychological 30.1% (Table 2). At baseline the mean rate from health questionnaire EQ-5D was 47 and the mean of the self-efficacy of physical activity was 70 (Table 3) while the reported PA mean level was estimated about 229 minutes per week (Table 4).

#### *Six-month follow-up*

The PA level ( $p<0.001$ ) (Table 4), the answers from health questionnaire EQ-5D ( $p<0.001$ ) and the self-efficacy of PA ( $p=0.016$ ) improved significantly at 6-month follow-up (Table 3). The study population visited PAP-centres for support at maximum five times (21%) during

the 6 months while 49% received support by telephone 1-2 times (Table2). The different activities with PAP-physiotherapists' guidelines in PAP-centres (73.6%) as gym, group exercise or water exercise were preferred by the patients. These activities as gym, group exercise, water exercise and tested activity belong to exercises at PAP centre (Table 5).

### *Qualitative results*

A twofold meaning from the question '*How do you feel in your body?*', represented the two main categories of the intervention, the effect on *physical health* and on *mental health*. These two main categories have three sub-categories each which represent the sense of the patients' answers compared with the answers at the baseline. The sub-categories are: *impaired* (1), *unchanged* (2) or *improved* (3) (Table 6). *Physical health* improved in 83% of the participants during the six months of monitoring and *mental health* improved in 71% (Table 7).

Patients' description of improved health condition prior to PAP was stated as:

*'I am very tired, I feel old and I have a lot of pain'*

and after PAP the same patient stated:

*'I feel more energetic in body and in mind',*

Another patient stated that his physical health did not change; at baseline he said:

*'I do not feel good physically and mentally. I am often tired, sad and I have pain'*

While after the 6-months follow-up the same patient stated:

*'I feel anxiety and stress. My condition is maintained but i can walk without support'*

A patient who felt that their health status was worse after the PAP intervention mentioned:

*'It is good when I start exercising'*

after six months the same patient answered:

*'I gained weight and I feel sick'*

There is a sense of increasing physical and mental health implied from many of the patients' comments as they discuss a feeling of general health translated in their body and in their thinking.

*'My body inhibits me, I am limited in activities and I have pain in the back'*

mention the patient before the intervention while after increasing PA level, the same patient gave the sense that both physical and mental increased health by observing;

*'I do not recognize me! I see myself as an active man. I do not feel pain. I decreased resting and now I am talking about tennis and trips'*

## **Discussion**

PA level increased after 6-months of treatment at PAP-centres. In addition, participants' self-reported health situation measured by EQ-5D health questionnaire, had improved. In a study about PAP, writer conclude that physical activity is essential to improving health as well as quality of life (34). PA self-efficacy also showed a significant improvement as did participants' readiness to change PA. In a study in 2008 was found that PA level, stages of change and quality of life increased, indicating that PAP may be suitable as a conventional treatment in primary health care and also that PAP is able to promote a more physically active lifestyle (16).

The number of participants' visits during the 6-months period and the telephone support by PAP-physiotherapists in PAP-centres can be considered as patients' interest about PAP. Monitoring of prescribed physical activity and follow-up visits or telephone support increase the effectiveness of the advice on given PA and improves compliance (35).

The chosen activities show that patients preferred to exercise in PAP-centres where were supported by PAP-physiotherapists, may have a small covariance to the role of physiotherapists in connection with patients' support into this method of treatment.

Physical activity has been identified as an important health-related behaviour to change, and patients ask health care professionals, as physiotherapists, for support in making lifestyle changes (36).

Experiences and quotation of the patients after the PAP-intervention indicate a significant positive sense about PAP-treatment.

However, assessing the self-reported PA level, health status by EQ-5D and self-reported readiness to change PA by supporting the findings with quotation of experiences of the patients is a method which does not appear to been conducted before. We used measurements (quantitative data) about PA level and connected them with the sense of patients' experiences and thinking about their health situation after the intervention (qualitative data). When both quantitative and qualitative data used in combination, a more complete analysis can be yielded (37).

Many quantitative studies and less qualitative studies tried to identify and observe the result of PAP on health and public health, however the role of physiotherapists in this process is also a subject which needs further investigation in the future (18).

A qualitative study in which was examined the role of physiotherapists in the context of providing therapy services in acute care was found that the major concerns for physiotherapists in the acute care setting, like physiotherapists in other settings, were patients' mobility and safety (38). PAP-physiotherapists support, motivate and encourage patients with the proper dosing of PA. . A mix of interpersonal and organizational factors influences patient-therapist interactions. Physiotherapists' awareness of these factors could enhance patient interactions and treatment outcomes (39).

PAP-physiotherapists are educated with the background of PA, exercise and treatment. PAP-physiotherapists have the background of the motion of human body and they are able to work with patients in order to treat several diseases by using PAP-treatment.

PA used as preventing treatment and created a need of measuring patient's physical activity level. A method of promoting physical activity level, within health care, is physical activity on prescription (22).

The World Confederation for Physical Therapy supports that for the provision of primary health care, equitable access to effective services should be provided to local population. Communities must have access to primary health care services and health services must be responsive to their needs. One of the principles of physiotherapists according to World Confederation for Physical Therapy refers to health promotion, disease prevention and treatment/intervention/rehabilitation (40). PAP-treatment is such a method that is offered from PAP-physiotherapist to the local population and is accessible to everyone who seeking alternative treatment strategies. PAP-treatment should be universal beyond the fact that patients need a prescription. Physiotherapist entry level education and continuing professional development opportunities are needed to prepare physiotherapists to practise for improving health in communities (41).

In a randomize control trial study for exercise on prescription for women, concluded that this exercise programme on prescription increased physical activity and quality of life over two years. Authors supported the use of exercise on prescription as treatment strategies to reduce physical inactivity (42).

In a study in US, authors aimed to identify and issue a recommendation on the types of physical activity needed to improve and maintain health in older adults. They conclude that the promotion of physical activity in older adults should emphasize moderate-intensity aerobic activity, muscle-strengthening activity, reducing sedentary behaviour, and risk

management (43). The increased PA level and the score on health questionnaire show a correlation to adopt healthy behaviours after PA. The measured intervention resulted both on increasing health and PA level that shows a significant correlation between health promotion and PA promotion. To include PA promotion as important mean of comprehensive health care and disease management, a fundamental change is needed (44).

Adults feel responsibility for their own PA level, but also impute responsibility for promoting increased PA to health care professionals (36). Specific strategies to promote physical activity and encourage the role of PAP-physiotherapist are necessary.

This study did not have any control group which means that it is difficult to estimate the effect of the PAP-intervention on increased physical activity level and positive health effects. The results are however comparable to other studies with intervention groups (16, 45-47). The sample was only from a specific part of the city of Gothenburg while in Nordic countries the life expectancy still remains high from 2006. The Nordic countries are highly developed welfare states with a long tradition of equality in health, social life and welfare policies (48).

### **Conclusions and implications**

The increased level of physical activity after physical therapy monitoring and guidance in wellness centres by PAP-physiotherapists is related with health improvement and with the readiness of patients to change their PA level at 6-months follow-up. The PAP-physiotherapists are needed to support patient's process of improving health by visits in PAP-centers or telephone. The results may suggest the Swedish health care to invest in this method of prevention and promotion of health. A future research with qualitative approach may observe the interaction between patient and therapist and may identify the role of physiotherapist in order to increase the PA level and observe the health promotion. Further research in developing countries would be interesting in assessing the PA level and the role of health professionals for improving public health, with this particular strategy.

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## APPENDIX

**Table 1. Baseline characteristics of the study population, n=114.**

Variable	Number and percentage or standard deviation
Age, years mean (sd)	63 (14)
<b>Sex</b>	
Female n, (%)	74 (65)
Male n, (%)	40 (35)
<b>Diagnosis,</b>	
Musculoskeletal n, (%)	98 (86.7)
Psychological n, (%)	34 (30.1)
Heart issues n, (%)	62 (54.9)
Metabolic n, (%)	46 (40.7)
Respiratory n, (%)	17 (15)
Neurological n, (%)	8 (7.1)
Cancer n, (%)	7 (6.2)
Others n, (%)	18 (15.9)

**Table 2. Number of visits and number of telephone support and origin of patients' prescriptions**

Variable	Number and percentage
<b>PAP prescribed from: (n=107)</b>	
Health care centre n, (%)	81 (75)
Rehabilitation centre n, (%)	15 (13.1)
Hospital n, (%)	10 (9.3)
<b>Other n, (%)</b>	
Other n, (%)	1 (0.9)
<b>Visits (n=105) n, (%)</b>	
	1 (20.2)
	2 (15.8)
	3 (14.9)
	4 (20.2)
	5 (21.1)
<b>Telephone support (n=91) n, (%)</b>	
	0 (22.8)
	1 (28.9)
	2 (20.2)
	3 (6.1)
	4 (0.9)
	5 (0.9)

**Table 3. Descriptive statistics and differences in measurements related to quality of health and readiness to change physical activity**

Variable	n <sub>0</sub> (enrolled)	n <sub>1</sub> (baseline)	n <sub>2</sub> (6-month follow-up)	Baseline md (min-max)	6-month follow up md (min-max)	p value
Health questionnaire EQ-5D	114	92	71	47 (0-90)	65 (20-90)	<b>&lt;0.001<sup>a</sup></b>
Importance of physical activity	114	82	61	90 (30-100)	90 (20-100)	0.311 <sup>a</sup>
Self-efficacy of physical activity	114	83	61	70 (15-100)	80 (10-100)	<b>0.016<sup>a</sup></b>
Preparedness of physical activity	114	36	49	80 (50-100)	83 (30-100)	0.689 <sup>a</sup>

Abbreviations: md, median ; min-max, minimum-maximum

<sup>a</sup> p values were determined by Wilcoxon Signed Ranks Test for the difference between baseline and 6-months follow up

**Table 4. Descriptive statistics and differences for physical activity and Sedentary time (IPAQ)**

Variable	n <sub>0</sub>	n <sub>1</sub>	n <sub>2</sub>	Baseline	6-month follow up	Mean difference	95 % CI	p value
Physical activity	114	92	72	229 (222.7) <sup>a</sup>	375 (235.1)	146.5	86;207	<b>&lt;0.001<sup>b</sup></b>
Sedentary time (IPAQ)	114	59	38	360 (120-2400) <sup>c</sup>	360 (60-780)	-	-	0.311 <sup>d</sup>

Abbreviations: CI, confidence intervals; IPAQ, International Physical Activity Questionnaire

<sup>a</sup> mean in minutes (Standard Deviation)

<sup>b</sup> p values were determined by a paired samples t-test

<sup>c</sup> median in minutes (min-max)

<sup>d</sup> p values were determined by Wilcoxon Signed Ranks Test

**Table 5. Characteristics of the type of physical activity during the intervention**

Variables	Number and rate of participation
Physical activity in PAP-centre n=110	81 (73.6)
Individually performed exercise n=99	11 (11.1)
Tested activity at least once n=99	17 (17.2)
<sup>a</sup> Hälsotek-Hälsolots n=96	10 (10.4)
Exercise at other wellness centre n=95	20 (21.1)
Other physical activities n=99	84 (84.8)

Data are given as number (%)

<sup>a</sup>Hälsotek-Hälsolots are local welfare organisations

**Table 6. Categories of patients experiences of physical activity intervention at 6-month follow-up**

Major categories	Associated concept	Sub-categories	Associated meaning	Numeric code
<i>Physical health</i>	The outcome of physical activity on physical health (pain, disability, movement, dizziness)	<i>'Impaired'</i>	-Feelings and thinking that after the intervention patients body seems and general health to be worse than the day which started	1
		<i>'Unchanged'</i>	- Feelings and thinking that after the intervention patients body and general health seems to remained unchanged with the day which started	2
<i>Mental health</i>	The outcome of physical activity on mental health (motivation, mood, fear, happiness)	<i>'Improved'</i>	-Feelings and thinking that after the intervention patients body and general health seems to be better or very much better than the day which started	3

**Table 7. Self-reported physical and mental health at 6-month follow-up of PAP-physiotherapist intervention**

<b>Physical health (n=75)</b>	Improved	62 (83)
	Unchanged	8 (11)
	Impaired	5 (6)
<b>Psychological health (n=69)</b>	Improved	49 (71)
	Unchanged	19 (28)
	Impaired	1 (1)

Data are given as numbers (%)

Figure 1. Flowchart of patients

