



The organisation of promoting physical activity in health care - examples from the Nordic countries

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Nordic context

The Nordic countries are similar in several respects such as culture and social conditions, and they have co-operation in a number of aspects, including health and welfare. Equal opportunities, social solidarity and security for all, as well as equal access to health services for all including socially disadvantaged and vulnerable groups are common principles for the Nordic countries. The context also share several challenges with regard to health problems, such as an inadequate level of physical activity, overweight and obesity, lifestyle diseases and social inequalities in health. Health care in the Nordic countries is public and largely financed through taxes or compulsory health insurance systems. At the same time, The Nordic countries are different with regard to such matters as what organizational level is responsible for public health work and healthcare, respectively. All of the countries have well-established systems for primary care. However, where the primary care is placed in the organisational structure differs as it is either county councils/regions or municipalities that are responsible. There are differences between the countries with regard to the amount of staff employed in the healthcare system, both in total and in various professions.

Methods and models for prescribing physical activity

In Denmark, Finland, Norway and Sweden, various models for prescribing physical activity through the health care services have been developed since late

1990s. The development and detailed description of the methods until 2010 are presented in “Physical activity on prescription in the Nordic region - experiences and recommendations” written by L Kallings on behalf of the “Nordic network for physical activity food and health” (1). Iceland started to use physical activity on prescription (PAP) in 2014 and their model is built on the Swedish PAP model. All models have their advantages and disadvantages and different models are suitable for different conditions. Most of the models have been scientifically studied, and increases patients’ physical activity level. One method that is effective under certain conditions may not necessarily be directly transferrable to work in other countries, due to differences in the contexts, the health care system and important stakeholders and so on.

The common denominator in the various models for physical activity on prescription is that physicians or other licensed health care professionals discuss with the patient and prescribe a written prescription for physical activity. Another common approach is that each country has one or more models that are adapted to local conditions in each region, county council or municipality.

Differences between the models primarily concern who issues prescriptions, who has a motivational interview with the patient and follows up the prescribed activities and which patients are eligible. There is a wide variation in how intensive the interventions are, what is done within the health care services and in cooperati-



on with other actors in society, and if focus is on promoting physical activity individually or in group activities. Some models use existing structures in society while others have developed new ones.

The different methods of prescribing physical activity in the Nordic countries is described in a schematic way in Figure 1 and can mainly be divided into 5 main models:

1. Physical activity on prescription (PAP)

- Health care professionals use counselling, written prescription of physical activity and arrange for follow-ups for both health effects and physical activity.
- The physical activity is conducted outside the health care setting, either as activity that the individual does on his or her own or an organised activity in ordinary activity groups in the society.

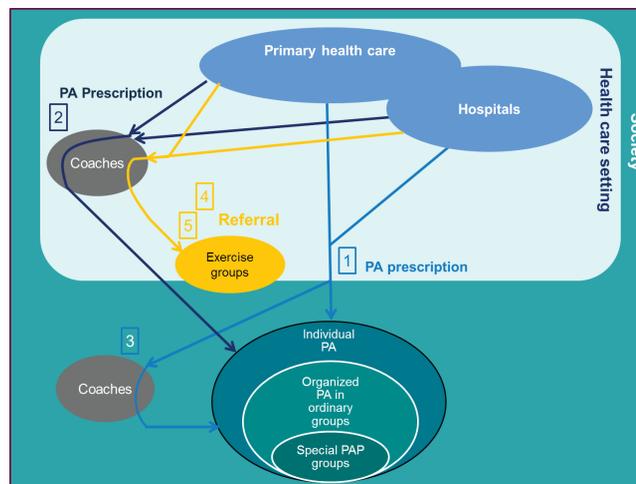
2. PAP with guidance within the health care setting

- Health care professionals use counselling, written prescription of physical activity and arrange for follow-ups for both health effects and physical activity.
- Coaches (mostly physiotherapists or nurses) within the health care setting add more motivational counselling, help to find suitable physical activity and have follow-ups of the physical activity. Give the prescriber feed-back on the patient's adherence to physical activity.
- The physical activity is conducted outside the health care setting, either as activity that the individual does on his or her own or an organised activity in ordinary activity groups in the society.

3. PAP with guidance outside the health care setting

- Health care professionals use counselling, written prescription of physical activity and arrange for follow-ups for both health effects and physical activity.
- Coaches outside the health care setting add more motivational counselling, help to find suitable physical activity and have follow-ups of the physical activity. Give the prescriber feed-back on the patient's adherence to physical activity.
- The physical activity is conducted outside the health care setting, either as activity that the individual does on his or her own or an organised activity in ordinary activity groups in the society.

Figure 1 Schematic figure of the different methods for prescribing physical activity in the Nordic countries (modified from Kallings 2010 (1)).



4. Exercise referral

- GPs refer patients to exercise groups within the health care setting.
- Exercise coaches (mostly physiotherapists) within the health care setting use motivational counselling, conduct exercise tests and have follow-ups of the physical activity.
- The physical activity is conducted in groups within the health care setting 1-2 times per week during 3-6 months.

5. Healthy living prescription scheme

- GPs or other health care professionals refer patients to exercise groups at a Healthy Life Centre within the health care setting.
- Healthy living prescription schemes are structured follow-up 3 months program that starts and ends with a health conversation. Plan for follow-up is based on the participant's needs and goals regarding physical activity or other lifestyle (such as diet or smoking) and created in collaboration between health professionals and participant.
- Exercise coaches (mostly physiotherapists) within the health care setting use motivational counselling, conduct exercise tests and have follow-ups of the physical activity.
- The physical activity is conducted in groups within the health care setting 1-2 times per week during 3 months.

The PAP model (1) is mainly used in Sweden, Finland and to some extent in Norway. PAP with guidance within the health care setting (2) is the main method in Iceland and also in use in Sweden. PAP with guidance outside the health care setting (3) is a method in Swe-



den. Exercise referral (4) is the Danish method and the Healthy living prescription scheme (5) is the main method in Norway. Links to more information of the various methods and evaluations of prescribing physical activity on prescription in the different Nordic countries are listed in Table 1.

Table 1 Information of the various methods of prescribing physical activity on prescription in the different Nordic countries

Country	Original name of the method	Homepage/main references for description of the methods	Scientific publications
Denmark	Motion på recept (MpR)	The Danish Health and Medicines Authority: Resultatopsamling af motion på recept i Danmark (2)	(3-8)
Iceland	Hreyfisedill	www.hreyfisedill.is	
Finland	Liikkumisresepti	http://www.ukkinstituutti.fi/en/research/promoting-health-enhancing-physical-activity/developing-physical-activity-counselling	(9-11)
Norway	Frisklivsresept	https://helsedirektoratet.no/folkehelse/frisklivssentraler The Norwegian Directorate of Health: Veileder for kommunale frisklivssentraler (11)	(13)
Sweden	FaR – fysisk aktivitet på recept	http://www.fyss.se/fyss-in-english/ www.folkhalsomyndigheten.se/far/ Swedish National Institute of Public Health: Individually Adapted, Written Prescription of Physical Activity – FaR® (12)	(15-32)

Effects of the Nordic methods of prescribing physical activity

There is no study comparing the different Nordic models of prescribing physical activity, so there is a lack of knowledge if any method is better than the other. The methods in Denmark, Finland and Sweden have been evaluated and all shown positive results on physical activity level (5;8;10;18-20;25), also the Norwegian methods seems to have this positive effects (13). Studies also indicate that (3;5;9;10;15;20;27;33;34):

- Exercise referral have a similar effect as repeated patient-centred counselling (can be compared with physical activity on prescription).
- Referral to physiotherapist-led group training sessions 2-3 times a week for 3-4 months and follow-ups have better effect than ordinary care, however there were no extra effect compared to physical activity on prescription.
- Physical activity on prescription have better effect

than general written advice.

- Physical activity on prescription are more effective than standard care.
- Physical activity on prescription is cost-effective
- Registration of physical activity with feedback from the physiotherapist has better effect than ordinary care.

Conclusion

Based on research and experiences from the Nordic countries, one can conclude that it is not possible to propose a single model for physical activity on prescription that suits all patients, prescribers and different local conditions. Work must consequently be adapted based on the current circumstances. However, it is suggested that individualized physical activity on prescription should be the first choice. Since individualized physical activity prescription has similar effects as exercise referral, with training within the health care setting that is more resource intensive. The more intensive intervention should be saved for those patients who really need that extra support. Guidance for the future would be:

- It is important that both the activity prescribed and the support provided to cover the patient's needs is adapted to the individual.
 - In general, health care personnel should use two levels of efforts for patients who need to increase their physical activity for preventive or curative purposes.
1. Patients are mainly offered motivational interviews with an individually adapted, written prescription of physical activity that the patient is to conduct on his or her own (daily activity and/or organised activity).
 2. Patients who need more help to get started with physical activity are offered exercise groups in the health care services as an initial step. An individually adapted, written prescription can then facilitate the transition from structured exercise within the health care services to the individual becoming lastingly, independently physically active.



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