European Initiative for Exercise in Medicine (EIEIM)
4th Congress

18th - 19th September 2015 in Zagreb, Croatia
INTRODUCTION  18TH SEP; 02:30-03:00 P.M.

Vuori I*

Physical Activity Counselling in Primary Health Care; the Challenge

1. FINLAND

The evidence for the multiple health benefits of physical activity (PA) is strong. However, practice of adequate physical activity is insufficient among the majority of most populations, especially among the clients of the primary health care (PHC). This system has several favourable conditions to advance health-enhancing PA by e.g. counselling those who could gain the most of it. However, counselling is quite seldom practiced. In order to increase and improve PA counselling in PHC we must know the barriers hindering PA counselling, to understand and root them causes, and to develop and use effective strategies to lessen the obstacles at all levels.

Obstacles and root causes of PA counselling in PHC. The most often given reasons hindering PA counselling by individual PHC practitioners are lack of several prerequisites for it such as: time, knowledge of PA, training for counselling, materials for learning, education and information, protocols for delivery of the service, system support, resources, and incentives and reimbursement, and the perception of PA counselling as a secondary task and that patients often ignore the advice (Vuori et al. 2013).

These and other barriers for the scarcity of PA counselling can be found at three levels: individual practitioner, PHC unit, and the PHC system. Some of the obstacles can be eliminated or lessened by individual practitioners e.g. by self-learning and allowing time for counselling, if the practitioner is sufficiently confident on the value of this service and motivated to invest time in doing it. However, the effects of these efforts take place in small scale and are often short-lived. The most important barriers such as lack of opportunities for the needed education and training, materials, fiscal and organizational resources, and incentives for systematically and professionally providing counselling services are on the result of the functional units of the PHC or the whole PHC system.

The common nominator and root cause of most barriers for PA counselling is the low priority given to PA and its promotion in the PHC system. If the priority of PA counselling and PA promotion in general would increase, there would be more development of corresponding conditions for providing these services as there are for a variety of established clinical procedures and preventive services that have higher priority (Kotke et al. 1993).

The Challenge. The great challenge to increase PA promotion and counselling in the PHC is to rise the priority of this service: by convincing all actors within the system from individual practitioners to the highest decision makers of the worthiness, feasibility, effectiveness and cost-efficiency of PA counselling in the PHC system in order to fulfill its responsibilities. This challenge can be fully met only by producing strong evidence of all aspects listed above, and by disseminating it systematically in multiple ways.

References

Design of a RCT Evaluating the (Cost-) Effective Occupational Health Guideline to Improve Workers’ Physical Activity and Dietary Behaviour in Order to Prevent Weight Gain: the Balance@Work Study

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Introduction: The prevalence of overweight and obesity has reached epidemic proportions, also in The Netherlands. Primary prevention lifestyle interventions are effective and feasible within the occupational health (OH) service setting but are hardly being implemented by occupational practitioners, if at all. The aims of this study are to (1) develop, (2) evaluate, and (3) implement a weight gain prevention guideline to be used by OH professionals, focusing on improvements in physical activity and dietary behaviour.

Methods: The guideline is developed according to the template of the Netherlands Society of Occupational Medicine (NVAB) and the Intervention Mapping (IM) protocol and provides clear-cut recommendations to the OH professional how to improve the worker’s physical activity and dietary behaviour. The guideline is now to be evaluated among 150 participants in a randomised controlled trial with two arms. OH professionals in the intervention group will apply the guideline at the eligible workers and OH professionals in the control group will perform their usual care. The intervention will last 6 months and will comprise of face-to-face (by means of motivational interviewing) and written information about a healthy lifestyle. Additionally, environmental cues will be used. At baseline, after 6, 12, and 18 months measurements will take place. Primary outcome variables are physical activity, dietary behaviour, waist circumference, and body weight. Secondary outcome variables include: general health status, quality of life, and cardiovascualr disease risk profile. Sickness absenteeism and cost-effectiveness will be assessed as well. Multilevel analysis will be performed to compare all workers and OH professionals in the control group will perform their usual care. The intervention will consist of screening, preventive medical exam, laboratory tests and threat assessment performed by general practitioners (GPs), followed by intervention (in the case of more than 20% risk assessment) (3). Non medication structured intervention (Health Education Program) is performed by specially trained health workers (i.e. nurses, physiotherapists) at 64 Health Education Centres countrywide through individual counselling and workshops (including 2 km walk test and PA workshops) (3). In 2011 a concept of ’module practice’ was introduced on primary health care level, where specially trained nurses manage NCDs as part of GP team.

Results: Under IHEPA PAT study five countries reported stand-alone IHEPA policy and six reported national recommendations (2) (including Slovenia). Evaluation and use of scientific evidence were endorsed but described as weak in practice (2). Slovenia recently decided to develop a joint national policy to combat NCDs more efficiently, so in August 2015 a National program on nutrition and physical activity for health 2015-2015 was adopted. The main purpose of it is to improve nutrition and PA habits of Slovenian population and to lower the incidence of NCDs (4). Today more than 50% GPs endorse the concept of module practice. 32.69% health education workshops and individual consultations for more than 390 000 adults were performed from 2002 till the end of 2013 (5). Individual workshops and consultations are shown in Figure 1.

Conclusions: It is not easy to bring together successful key components within a national HEPA policy framework. The IHEPA PAT study highlighted similarities and differences among participating countries and revealed new opportunities for involved countries and other countries to consider. Efficient health care related approaches towards prevention and management of NCDs should involve empowerment of individuals and communities for a healthy lifestyle. Collaboration and integration of health and other sectors (i.e. education and sports) and non-governmental organisations is urgent for any successful implementation.

Acknowledgements: Special thanks to National Institute of Public Health in Slovenia and all contributors who participated in IHEPA PAT study from IHEPA Europe Network.

References
Exercise Is Medicine – Experience from Medimurje County Croatia

1. INSTITUTE OF PUBLIC HEALTH COUNTY OF MEĐIMURJE, Croatia
2. CROATIAN ASSOCIATION FOR FITNESS AND HEALTH, Croatia
3. FACULTY OF KINESIOLOGY UNIVERSITY OF ZAGREB, Croatia

Background: Increasing physical activity has been one of five public health priorities of the Medimurje County Plan for Health since 2004, when as part of a Public Health Capacity Building Program a strategic framework of the county plan for health was made. Since then, many projects aimed at promoting physical activity have been implemented by the Institute of Public Health County of Medimurje from 2010 to 2015 and are here presented.

Interventions for physical activity promotion: 1) the information program “Together for Better Health!” focusing on physical activity and nutrition intervention in school settings; 2) an individually adapted health-behavioural change program with social support held in the Counselling Centre for Health Promotion, Prevention and Treatment of Overweight and Obese Adults; 3) Healthy Lifestyle-Program, a social support intervention in two rural communities promoting a healthy lifestyle to improve prevention, early detection and control of chronic non-communicable diseases among middle-aged and older adults.; 4) NonMVO MOVE campaign and MOVE Week promoting sport and physical activity in the community; 5) a systematic approach for linking local health care systems (especially PHC) with Sport for All programs and fitness system in the community; the first step was PHC physicians’ training (April 2015), organized by the Institute and Fitness Academy Croatia.

Conclusion: Adopting the habit of regular physical activity is one of the most important steps that people of all ages can take to improve their health and well-being. The public health sector has a crucial role in the process. Effective evidence-based interventions that can increase the level of physical activity include initiatives based on successful partnerships of the health sector and other sectors and organizations. The Institute has created partnerships with many community sectors but additional efforts are needed to make physical activity a regular part of daily life and prevention and treatment modalities. If achieved, this will improve public health and reduce health care costs.

References
1. Kutnjak Kiš R, Bitić L, Najman Husman E. Promoting physical activity and delivering in the local community through project ‘Public Health Capacity Building Programme: Healthy Counties’ the example of Medimurje County (Croatia). Bld. Sport Citizens Forum, ISACA, 18-21 Nov 2010

What Primary Health Care Physicians Need to Know on Preparticipation Health Assessment and Risk Classification?

1. FACULTY OF KINESIOLOGY, University of Zagreb, Croatia

- Physical activity is associated with many health benefits. Its role in prevention, treatment, and rehabilitation of numerous diseases is well recognized. Although recommended for all people, engagement in physical activity and exercise programs, especially in previously sedentary individuals, can pose some health risks. Primarily, these include cardiovascular incidents and musculoskeletal injuries. Preparticipation health assessment and risk classification is, therefore, necessary before starting with a physical activity/exercise program. Due to their professional authority and direct contact with patients/potential novice exercisers, the primary health care physicians could play a major role in physical activity promotion and counseling, which obviously should incorporate a preparticipation health risk assessment. According to the guidelines provided by the American College of Sports Medicine (ACSM), the assessment should include screening for the presence of risk factors, signs, symptoms and/or presence of several cardiovascular, pulmonary, and metabolic diseases. Other conditions and/or disorders - such as pregnancy or musculoskeletal injuries - that would require particular attention regarding exercise participation - should also be screened for. Such an assessment provides information needed for subsequent safe performance of exercise testing and safe and effective exercise programming. The physicians should collect information on the patient’s health history, family history, present medical conditions, signs, symptoms and risk factors, as well as current physical activity habits and medications. There are questionnaires available that can help physicians in collecting the information needed for accurate risk assessment, such as the PAR-Q and the AHA/ACSM Health Fitness Facility Preparticipation Screening Questionnaire. They can also be self-administered. The cardiovascular disease (CVD) risk factors that should be taken into account are age, family history of cardiovascular diseases and sudden death, cigarette smoking, sedentary lifestyle, obesity (measured by body mass index or waist circumference), hypertension, dyslipidemia (evidenced by elevated low-density lipoprotein or total serum cholesterol, or low high-density lipoprotein (HDL)), prediabetes (impaired fasting glucose or impaired glucose tolerance). In the 8th classification, a person is considered to be at low risk of asymptomatic and having one (or no) mentioned CVD risk factors. Persons at moderate risk are also asymptomatic, but have two (or more) CVD risk factors. It should, however, be noted that a high serum HDL cholesterol is considered a negative (protective) risk factor and should, if present, be subtracted from the sum of positive risk factors in the risk classification. A person is immediately considered at a high risk if she has one or more signs or symptoms of, or is diagnosed with relevant cardiovascular, pulmonary, or metabolic diseases. Based on the risk classification, a decision is made on whether: 1) the person should undergo a complete medical exam and obtain clearance before enrolling in an exercise program (depending also on the intensity of the program), 2) a graded exercise testing should be performed before starting with the exercise program, and 3) a medical doctor should supervise the maximal or submaximal exercise testing.

References
Recommendations for Exercise Programs and Referring Patients to FC (Green Receipt)

1. SWEDISH SCHOOL OF SPORTS AND HEALTH SCIENCES AND KAROLINSKA UNIVERSITY HOSPITAL, Stockholm, Sweden.

- **Research question**: Today, few questions on the evidence on the importance of physical activity (PA) to increase health (1). The great challenge that now remains for the health-care system is to translate this knowledge into clinical practice.

- Several barriers still exist for PA to be an integrated part of treatment options provided. For example, poor evidence on the efficacy of different methods to increase the level of PA is needed. While methods such as Exercise is Medicine in the US and Exercise on prescription in Sweden (2) have emerged in recent years, these need further study. Furthermore, there was a need for recommendations on how, and when to refer patients to fitness centers and other training facilities.

- **Results**: When recommending an exercise programme and/or referring to fitness centres, as part of exercise in prescription in health care (3), the physician should have knowledge of both the potential health effects of PA for a given health condition (4), but also on how any underlying conditions may affect PA participation and/or influence effects of PA. Referring physicians should give patients advice on the proper (level of and type of) PA for their specific underlying condition. Taking barriers and contraindications into consideration, this individual “risk-benefit” ratio of PA is the “core” of any exercise prescription process. In addition, knowledge of exercise testing and PA-assessment (5) is vital for the exercise prescription and its follow-up.

- Since a few years back, scientifically based recommendations on appropriate exercise programs for different diseases, have been collected in the Swedish handbook, FYSS (www.fyss.se). This book contains 39 chapters with exercise recommendations for hypertension, diabetes, osteoarthritis, depression, among many other clinical entities. The book has now been translated into English, and is available for free on the website. A new version of the FYSS (in Swedish) is now under construction.

- Overall, education on “Exercise is medicine,” including the use of FYSS and on logistics of exercise prescription, will increase motivation and knowledge of health care professionals. Education should start at University level and continue in professional life. Full integration of lifestyle parameters into the medical records of the patients, is an important component. Furthermore, high-lighting scientifically proven methods for increasing PA in the population/patients is national and international recommendations will increase the pressure on the health care system to push implementation further. Many scientific and professional bodies (WHO, IOC, ESS, EACPR, EFS-MA, HPH, EIM, MCM, HEPA and FIMS etc) are now addressing the problem of non-communicable diseases (6). Subsequently, SEM specialists in a number of countries (for example UK, Australia) now are “exercise and sports medicine” specialists. It is important that these professionals will get access to appropriate exercise recommendations and gain knowledge of logistics of referral.

- **References**

Evaluation of Effectiveness of the EIM Referral System

1. UNIVERSITÉ DE ZAGREB, Croatia

- **Introduction**: The “Exercise is Medicine” (EIM) referral system is a relatively new and for health leaders and administration a bit strange approach. While most physicians and even the general population are today aware of the health benefits of physical activity, it is not just superfluously imbedded in the health system and the number of regularly active people in the overall population is not satisfactory. The introduction of the EIM referral system in the health-care system is certainly a development process, which should be carefully prepared, developed and monitored.

- **Rationale**: According to the health system general commitment, it is not expected that the EIM system could be implemented broadly, easily and in the near future. That is why it is important to inform and educate all potential stakeholders, in order to understand and realize the long-term cost-benefit ratio of such an approach. We are convinced that this is a win-win approach for all institutions involved, especially for citizens and patients to whom the prescribed physical activity is “medicine”.

- **Two levels evaluation system**: For evaluation of EIM referral system intervention, it is of practical interest to differentiate two target levels: i.e. the basic level indicators and the higher, epidemiological level. the data from the PKC settings, PA centres and referred persons serves for an insight into the implementation status and successfulness of the basic operative level giving the information to the local health, sport and fitness professionals. Such data obtained from appropriate questionnaires should help them to upgrade their approach and cooperation with local PKC and PA settings. The second group collected and derived from basic data, should give information on the course and successfulness of the strategic approach among the primary health care settings and PA centres, enable a comprehensive analysis and continue managing off the project from higher level coordination boards.

- **References**
ABSTRACTS

POSSIBLE DIFFICULTIES IN PRACTICE 19TH SEP, 08:30-09:00 A.M.
Hartmann H

How to Obtain the Health System for Cooperation

- Why do we need common efforts? According to numerous studies there is convincing evidence: physical inactivity is a key risk factor for non-communicable diseases and for premature deaths worldwide. On the other hand extensive knowledge about the manifold health benefits of physical activity and sport has been accumulated. In spite of all efforts to promote health enhancing physical activities the level of activity remains unsatisfactorily low.

How to overcome the mismatch between the health and the sport sector? Different reasons for the mismatch will be identified in both sectors and a signpost for cross-sector cooperation will be outlined in the frame of the German Health Sport Concept. This concept is based on one constant effort of the sport sector to overcome the barriers to the heath sector with quality assurance in regard to evidence based exercise programs and a health specific education of instructors. On the other hand it’s obvious that the health system improved its consciousness and knowledge about the positive effects of physical activity and sport. Some common actions of the health and the sport sector are proof of a better mutual recognition, such as the quality mark for exercise programs and its recognition through the health insurance companies, the "Exercise Prescription" membership in the Federal Association for Diseases, Prevention and Health Promotion or the cooperation with the German Centre of Health Education. But even if the progress in recognition and cooperation is obvious, more efforts are needed particularly on the local level.

Medical practitioners don’t use their authority effectively enough to encourage clients for health enhancing physical activities and a direct cooperation with sport clubs is rather underdeveloped. Its seems to be also necessary to provide physicians and other health practitioners with better education, practical experience and more knowledge about why and how to use physical activity for health.

References

POSSIBLE DIFFICULTIES IN PRACTICE 19TH SEP, 09:00-09:30 A.M.
Jurakic Đ., Greblo Z.

Determinants of Adherence to Physical Activity and Exercise: Brief Overview of Current Knowledge

- Undoubtedly, physical activity is essential for maintaining and improving health in the general population. Further, exercise has become an inherent part of prevention and treatment of numerous chronic diseases such as cardiovascular diseases, diabetes, obesity, osteoporosis, etc. Nevertheless, a large portion of the world’s population do not meet the physical activity recommendations and among those who join some kind of exercise program, approximately 50% drop out within a few months (1). In order to motivate people to be more persistent in physical activity and exercise programs, in the past three decades researchers have been vastly exploring determinants of adherence to such activities. In one of the first comprehensive reviews of scientific studies, Dishman et al (2) categorized determinants of physical activity and exercise in three groups: personal characteristics, environmental characteristics, and activity characteristics. In the following text, adherence determinants best supported by current scientific literature within each group will be presented.

Among personal modifiable characteristics, it seems that self-efficacy or belief in personal ability to perform the health behaviour has been one of most consistent determinants of adherence (2). Self-efficacy has been proven determinant of adherence in population-based community samples, exercise programs as well as in clinical exercise programs. Since self-efficacy can significantly be improved through proper training and feedback, adequate techniques and methods should be considered when creating physical activity intervention.

Among environmental factors, social support has been proven to be one of strongest determinants of adherence in both community samples and organized exercise groups. Social support refers to family, friends or spouse support among which the latter seems to be most influential especially in clinical settings (3).

With regards to activity characteristics, perceived discomfort based on high intensity of activity seems to be one of major reasons for drop out (1). Moderate intensity activities based on participants’ enjoyment in activity may promote adherence to physical activity and exercise.

Studies of physical activity and exercise adherence are usually based on different behavio- ral theories among which mostly used are: Transcendence of Model of Behavior Change, Social Cognitive Theory, Self-Determination Theory, and Theory of Planned Behavior.

References
The Role of Information and Technology in Exercise is Medicine (EIM)

Steinacker JM1, Zügel M1, Wartha O1, Wirt T1

1. UNIVERSITY OF ULM, Division of Sports and Rehabilitation Medicine, Ulm

The obesity epidemic, resulting from the combination of inactivity and an unhealthy life style requires combined global efforts to investigate and implement intervention strategies. For a successful health promotion it is important to choose an adequate strategy. EIM primarily focuses on primary care physicians who are responsible for diagnosing inactivity and integrating physical activity in their therapeutic concepts. For the medical doctor, health promotion for patients means to widen their traditional approach to the patient by implementing modern health communication techniques and patient-centered approaches. In this context a change in the social interaction with the patient is necessary, which includes empowering the patient accepting the patient as an autonomous partner including the patient in decision making processes and increasing the patient’s health literacy.

Studies have shown that "bottom up" approaches with counselling based on motivational stages and motivational interviewing techniques show more sustained effects than classical "top-down" approaches. The wide use of affordable and easy-to-use modern communication devices like smart phones, tablets and wearable technologies, such as fitness watches and sensors can promote the shift of expert knowledge from the medical doctor to the patient. By using wearables the patient is able to gather more information by accessing medical information easily on the internet. The patient is informed about many bodily functions, which were previously only assessed by medical doctors, such as heart rate, calorie burned, activity, step counts, sleep and food intake. There is an increasing number of studies on such technologies, having an impact on patient’s behavior, such as step count use on increasing diabetic control and decreasing sitting time (Jin et al. Medicine 94 : e1412, 2015).

Many effects of new technologies have to be examined further, e.g. how long are the effects sustained for and how do patients deal with the information. However, there are also confounding negative effects like decreased need for walking and increased screen time and sitting, which have to be kept in mind and assessed in future studies.

Nevertheless, there is a whole new arena for medical doctors as information managers, health counselors to their patients and as distributors of information to other health and exercise specialists.

References

FROM THEORY TO PRACTICE 19TH SEP; 10:30-11:00 A.M.

Diuraj M

About Fitness Centers (FC) and Their FFer – Fitness Index™ Project

1. FITNESS ACADEMY, Zagreb

4.  From Theory to Practice 19th Sep; 11:30-12:00 A.M.

Rieger T.

Create a Supporting Framework in the Fitness Sector to Promote an Active Way of Living

1. EUROPAACTIVE

The European Fitness Sector: The European fitness sector is a remarkable job market that employs 400,000 people within 46,000 facilities all over the continent. The services provided in fitness gyms and health clubs are characterized by a high degree of intimacy and privacy. In this regard fitness services are quite similar to medical services. Client proximity based on trust is key for health and exercise professionals to achieve optimal results in terms of physical adaptation as well as client satisfaction. Hence, standardization in fitness education and training is relevant due to gain credibility among stakeholders in the healthcare. It moreover helps to improve the recognition of industry professionals.

The Sector Qualifications Framework: The European Qualifications Framework is a common European reference framework, which links countries’ qualifications systems together, acting as a translation device to make qualifications more understandable. The classification of the EQF primarily involves learning outcomes such as knowledge, skills and competencies. The European fitness sector, represented by the Standards Council of EuropeActive has already referenced its education on the EQF. Many other sectors have yet not realized that the EQF is based on a common political decision of the European Union and that it will sustainably form the education in Europe. The current set of educational fitness standards encompasses the complete range of vocational levels (EQF 2-5). The purpose of applying the EQF is to help learners and workers, wishing to move between countries, or to change jobs, or to move between educational institutions in their home country. The procedure of standards development uses a holistic approach. Operators define the occupation (e.g., Personal Trainer EQF-level 4) by setting the title and creating the occupational roles, a separately appointed Technical Expert Group (TEG) composed of four to seven experts, who represent different educational institutions or sector organisations work on the competencies, skills and knowledge that are needed for the defined occupation. The TEG submits a first draft of their standards framework followed by a thorough external consultation phase in which everyone can participate. The TEG assesses the outcomes of the external consultation. After that EuropeActive’s Standards Council evaluates the final version of the standards set. In case of a positive outcome the new standards are published and training providers can then apply for accreditation. The aforementioned procedure is open, transparent and democratic. It leads to a common sector outcome. The label of being accredited by EuropeActive could be seen as a guide for people being interested in fitness education.

5. References