

Monitoring Physical Activity, a New Idea and Integration into Public Health Nutrition

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Editorial

World Health Organization and Federation of Sports Medicine including FIMS Committee on physical activity for health have been developed International Consensus that exercise is important for health and has great health benefits, in 1995 [1]. World Health Organization also have been developed the Guidelines for the promotion of Health-Enhancing Physical Activity programme, in 2000 [2].

The new "Move for Health" Day as an international event has been created by the World Health Organization to promote physical activity during 30-60 minutes moderate-intensity physical activity daily (2002). Greater benefits come from doing more vigorous activity for longer periods [3]. Dr. Pekka Puska, WHO's Director, Noncommunicable Disease Prevention and Health Promotion, emphasized that "physical activity is a strong means for individuals to prevent serious disease, and a cost-effective way for societies to improve public health. Strong national and local political commitment and support is an essential prerequisite for strengthening and sustaining Move for Health at the country level. "Move for Health "is part of a broader WHO MOVE to address the growing burden of chronic diseases through its "Global Strategy on Diet, Physical Activity and Health", which is being prepared by the World Health Assembly in May 2004 [4]. The European Network for the Promotion of Health-Enhancing Physical Activity (HEPA) is established in 2003 [5].

Increasing physical activity is a societal, not just an individual problem and demands a population-based, multi-sectoral, multi-disciplinary and culturally relevant approach that takes into account health and educational system, sport and recreation, urban planning, cultural, transport and other environmental and development factors [6].

Regular physical activity or average cardiorespiratory fitness has been shown to have the following health benefits: decreases the risk of cardiovascular diseases mortality in general and of coronary heart disease mortality in particular, prevents the development of high blood pressure, and reduces blood pressure in people with hypertension. Physical activity is also an important element in controlling T2DM, overweight and obesity, reducing the risk of osteoporosis and certain cancer (colon, breast). In addition, regular exercise is associated with positive mental health, healthy growth and development in young people and healthy aging.

Physical inactivity has been identified as one of the leading, independent risk factors for global mortality and is associated with major noncommunicable diseases (NCDs) [6].

A number of countries have assessed physical activity levels (PALs) and patterns as part of national health survey using a variety of

definitions and standardized questionnaires. International Physical Activity Questionnaire (IPAQ) [7-8] and the Global Physical Activity Questionnaire (GPAQ) [9] are the most frequently used tools in population studies.

Numerous studies of physical activity such as FINBALT/CINDI Health Monitor [10], Health Behavior in School-Aged Children (HBSC) [11] and other surveys of young people includes the questionnaires in which indicators of physical activity and sedentary behavior are in the context of nutrition-related disease prevention.

Assessment and estimation of cardiorespiratory fitness (VO_{2max} $ml^{-1}/min^{-1}/kg^{-1}$) is the most precise method using standardized tools. Its high important biological marker associated with metabolic risk factors especially in children and should be considered to be included in a European health monitoring system. Low cardiorespiratory fitness level is a strong predictor of metabolic syndrome, T2DM and cardiovascular disease. Complex methodology of stress test is used in the field of specialty of sports medicine including sub specialty for public health nutrition.

Republic of Macedonia has been adopted the law for regular preventive-medical examinations of physically active people (5-85 years old), every 6th months including assessment of cardiorespiratory fitness using stress test (Bruce, Astrand, Nowacki or PWC170 protocols), as well as the anthropometric, functional, biochemical-laboratory and parameters of muscle testing (standardized methodology).

We have been analyzed the study results of cardiorespiratory fitness assessment associated with cardiometabolic markers in physically active and sedentary overweight and obese adults with aim to develop prevention-therapeutic programmes for obesity management. The controlled clinical trial was conducted in the Public Health Institute of Sports Medicine in Skopje. The study results are presented online: F1000 Research - Open for Science [12].

In conclusion, cardiorespiratory fitness is potentially an important health marker in adults and children and should be included in the European health monitoring system such as in Macedonian health monitoring system.

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