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Obesity in Europe

Young people's physical activity
and sedentary lifestyles



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Introduction

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Recently there have been increasing reports in the media that focus on adolescents and depict them as a high-risk group: they are allegedly becoming fatter and fatter, supposedly because they eat too much, particularly too much fat and too much sugar, spend too much time sitting in front of the computer and of the television, fail to take enough exercise in their daily life and are less physically fit than any generation before them. To find out whether this scenario represents a distorted view or an accurate picture of the reality is not an easy task. Though we find almost identical and equally alarming reports in the media of all European countries, science has not been able to offer a clear answer. What data is available within Europe on the prevalence of overweight and obesity in children and young people is generally just as inconsistent as that relating to nutrition, media consumption, physical activity and fitness, and in some cases shows considerable variance.

This observation holds true in spite of considerable endeavours on the part of international institutions. In particular we can cite the activities of the World Health Organisation (WHO) and the International Obesity Task Force (IOTF), who are making increasing efforts, firstly, to promote research into the question, and secondly, to establish common guidelines for diagnostics, prevention and therapy.

It was in this context that the EU Commission, Directorate for Education and Culture, in 2003 commissioned a “Study on young people’s lifestyles and sedentariness and the role of sport in the context of education and as a means of restoring the balance”. In order to answer this array of questions a research consortium of experts from different European countries and representing academic disciplines in the areas of bio-medicine, social science, physical education and sport sciences was formed.¹

¹The project “Study on young people’s lifestyles and sedentariness and the role of sport in the context of education and as a means of restoring the balance” (AZ DG EAC/33/03) was awarded to the University of Paderborn under the leadership of Prof. Dr. Wolf-Dietrich Brettschneider, University of Paderborn, and Prof. Dr. Roland Naul, University of Duisburg-Essen. Also involved as cooperation partners were: Prof. Dr. Neil Armstrong (GBR), Prof. Dr. José Alvez Diniz (POR), Prof. Dr. Karsten Froberg (DEN) and Prof. Dr. Lars Bo Andersen (NOR), Prof. Dr. Lauri Laakso and Prof. Dr. Risto Telama (FIN), Prof. Dr. Skaiste Laskiene (LHT), Prof. Dr. Göran Patriksson (SWE), Prof. Dr. Antonin Rychtecky (CZE), Prof. Dr. Willem van Mechelen (NED) and Prof. Dr. Bart Vanreusel (BEL). In addition valued input was made by Prof. Dr. Viera Bebcáková (SVK), Dr. Damina Herman (POL), Prof. Dr. Paolo Parisi (ITA), Prof. Dr. Janko Strel (SLO), Andrea Bünemann and Dirk Hoffmann (GER).

The purpose of this study was to compile an intercultural comparative analysis of adolescents' lifestyles within the EU with the emphasis on lack of physical exercise (sedentariness). This analysis was based on international and national studies from the areas of epidemiology, cardiology, paediatrics, physiology, nutrition, psychology, sociology and sport sciences dealing with physical activity, fitness and motor abilities. This approach made it possible to use not only results from different scientific disciplines but also studies that had, in many cases, previously been available only in the language of the country, particularly from southern and eastern Europe.

In addition to these state-of-the-art reports on young people's lifestyles as well as their determinants and outcomes from the perspectives of specific disciplines and cultural contexts valuable information was given by experts from ministries and companies in the media, food & beverage, and electronic devices industries.

In some important areas, especially those concerning family and school-based nutrition and physical intervention studies to prevent sedentary lifestyles European findings are limited. Therefore relevant US findings were integrated into the study.

Our report therefore falls into three parts:

In part I the focus is on active and sedentary lifestyles and their correlates. N. Armstrong reviews the newest literature on habitual physical activity and aerobic fitness in European teenagers and concludes that the evidence linking these two categories is not very compelling. His findings show an emerging polarization with the difference between active and inactive as well as fit and unfit European youth increasing in the course of the last decades.

The contribution of L.B. Andersen, K. Froberg and their co-authors focus on linking physical inactivity and low fitness to metabolic disorders and cardiovascular disease risk factors including obesity. They show that risk factors cluster in the population of children and that this clustering is strongly related to low physical activity and fitness. They emphasize the potential of increased physical activity for primary prevention of CVD and obesity.

P. Parisi refers to the motto of the European Year of Education through Sport (2004) "Move your body, stretch your mind" and looks at the relation of health and lifestyle from an integral perspective on young people's development. In this context sport appears to play a major role, not only as a measure to keep the balance between energy intake and energy expenditure, but as a fundamental source in stimulating the body's physical and emotional expressions.

B. Vanreusel and B. Meulders argue that sedentariness is part of a "risk society" and refer to the paradox that today's young people is the first generation in Europe to grow up in societies that at the same time provide the determinants for

sedentary behaviour and produce the risk factors associated with such a lifestyle. They offer an integrated framework for increasing health promoting physical activity and reducing the risks of sedentariness.

The American group around J. Elder refers to the finding that a number of physical activity or dietary change programs exist, some of which have successfully achieved behaviour change in specific areas, but none of the changes has been effective to prevent childhood obesity. The authors argue and produce empirical evidence that only comprehensive strategies incorporating both behaviour change and the creation of supportive and stimulating changes in children's home, school and community environments may help to combat the obesity epidemic.

In part II the prevalence of obesity and the prevention programs launched by the ministries and conducted by research groups are in the fore. A. Niederhaus describes the efforts of the German government to slow the overweight and obesity development. Special attention is paid to the national "Platform for Nutrition and Physical Activity" (PEB) as well as to the nation-wide competition "Eat better and be more active" (Besser essen – mehr bewegen) which initiate campaigns to improve food and meals at home and increase physical activity in the daily lives of young people.

S. Danielzik et al. refer to a prospective study, the so-called "Kiel Obesity Prevention Study" (KOPS), and its potential for prevention. Its findings show the strong effect of a low socio-economic status and its role as a limiting factor in any intervention program. In accordance with other findings the authors emphasize the necessity of complementing school and family based interventions by measures tackling the obesogenic environment.

This is also the message of H. Heseker's and Anke Oepping's contribution. Though they argue from the perspective of nutrition they strongly favour an approach characterised by an internal and external linking. The internal linking implies the increase of physical activity, the decrease of media consumption and the improvement of nutrition. The external linking means a networked strategy combining the activities of all individuals and institutions responsible for the development of children and youth.

C. Graf and S. Dordel refer to their school-based intervention study "CHILT". They do not focus too much on childhood fatness, but rather on childhood fitness and activity. Their findings give evidence for a correlation of physical activity and fitness and specific aspects of cognition, though the causal relationship still remains undecoded.

Part III contains various state-of-the-art reports on young people's lifestyles and sedentariness written from the specific perspective of individual countries, respectively cultural contexts. The country reports by A. Rychtecký, S. Laskiene,

J. Strel and co-authors, R. Telema and co-authors and W.-D. Brettschneider, R. Naul and co-authors are taken as exemplars to show to which degree the prevalence rates of overweight and obesity in children and youth vary within the EU. They also show their changes over time and (with respect to Eastern Europe) especially in the context of the transformation processes after the fall of the iron curtain. The reports do not only agree in the decline of motor ability and physical fitness, but also in the increase of media consumption and physical inactivity in the daily lives of young people all over Europe.

The book provides a comprehensive state-of-the-art analysis concerning modern lifestyles of European teenagers with a special focus on the rising prevalence of childhood obesity and its determinants. It shows clearly the important role of physical activity and sport in the combat against the obesity epidemic.

Those readers who are interested in getting an overview of the physical activity and fitness level of European youth, the prevalence of childhood obesity, its risk factors and determinants and recommendations for intervention programs and prevention strategies, will receive a comprehensive tool with this volume of "Sport Science International".

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