Elke Knisel, Konrad Kleiner, Michal Bronikowski, Marcela González-Gross, Irena Martínková, Ralf Erdmann **Health Promotion at School. Pedagogical Aspects and Practical Implications**

Elke Knisel, Konrad Kleiner, Michal Bronikowski, Marcela González Gross, Irena Parry Martínková, Ralf Erdmann

Health Promotion at School

Pedagogical Aspects and Practical Implications

Managing Editor: Konstantin Kougioumtzis Associate Editor: Manolis Adamakis Language Editor: Deirdre Scully



Published by De Gruyter Open Ltd, Warsaw/Berlin Part of Walter de Gruyter GmbH, Berlin/Munich/Boston

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© 2017 Elke Kniesel and Chapters' Contributors ISBN: 978-3-11-053957-8 e-ISBN: 978-3-11-053959-2 Bibliographic information published by the Deutsche Nationalbibliothek. The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at http://dnb.dnb.de. Managing Editor: Konstantin Kougioumtzis Associate Editor: Manolis Adamakis Language Editor: Deirdre Scully www.degruyteropen.com Cover illustration: © 2017 Thinkstock

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List of contributing authors

Elke Knisel

Otto-von-Guericke University Magdeburg, Germany Chapter 1-2

Konrad Kleiner Vienna University, Austria *Chapter 2-3*

Michal Bronikowski University School of Physical Education Poznan, Poland *Chapter 2*

Marcela González Gross Polytechnic University of Madrid, Spain *Chapter 3*

Irena Parry Martínková Charles University in Prague, Czech Republic *Chapter 5*

Ralf Erdmann Norwegian School of Sport Science in Oslo, Norway Chapter 3

Kerstin Ketelhut University of Applied Sciences, Gera *Chapter 3*

Ida Krzminska University School of Physical Education Poznan, Poland *Chapter 3*

Adam Kantanista University School of Physical Education Poznan, Poland *Chapter 3*

Malgorzata Bronikowska University School of Physical Education Poznan, Poland *Chapter 3*

Monika Ciekot

University School of Physical Education Poznan, Poland *Chapter 3*

Markus Prill High School Havelduene in Berlin, Germany *Chapter 3*

Christiane Desaive Otto von Guericke University Magdeburg *Chapter 3*

Elisabeth Lenz Vienna University, Austria *Chapter 3*

Anette Walter Humboldt University of Berlin, Germany *Chapter 3*

David Cañada Polytechnic University of Madrid, Spain *Chapter 3*

Dorit Simon Humboldt University of Berlin, Germany *Chapter 3*

Carmen Cabrera Rivas Norwegian School of Sport Science in Oslo, Norway *Chapter 3*

David Cañada Polytechnic University in Madrid, Spain *Chapter 3* Health(a)ware (project number 128737-CP-1-2006-1-DE-COMENIUS-C21) was funded by the European Community in the Socrates Program, Comenius 2.1. Action – Training of School Education Staff. The content of this book reflects only the editors' and authors' views and the European Community is not liable for any use that may be made of the information contained therein.

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Foreword: The Health(a)ware Project

Health(a)ware was a multilateral project funded within the sub programme *Comenius* in the Life Long Learning Programme (LLLP). The aim of the EU with this programme is to support learning opportunities from childhood to old age in every single life situation according to the ideas of Johann Amos Comenius (1592-1670) of a school education based on practise and focussed on individual responsibility.

The universities involved in the Health(a)ware project were the Humboldt University of Berlin (DE), the Technical University of Madrid (ES), the Norwegian School of Sport Sciences (NO), the University School of Physical Education Poznan (PL), the Charles University Prague (CZ) and the University of Vienna (AT).

Health(a)ware consisted of three project phases. In the first phase the effective collaboration among the partners enabled the team to work out an inter-cultural approach to the current health concepts and discussed in the Health(a)ware conference in Prague in June 2007. In the second phase teaching examples were developed by the teamwork of physical education (PE) students and qualified PE teachers from the participating project schools. The examples were presented at the workshop in Poznan in June and during the conference in Vienna in September 2008. The third phase of the project included the testing and evaluation of the teaching examples. The symposium in Madrid in April 2009 gave an overview of the health modules and the material kit for PE class, cross-subject teaching and health projects at school.

This handbook is the result of this 3-year project work. The target groups of the book are teachers, students and professionals of health promotion and education, pedagogy and didactics, psychology, health sciences and other health-related subjects in different institutions (e.g., schools, universities, and health organizations), societies and non-profit organisations involved in health promotion, health experts and participants of vocational and in-service training.

We thank all involved colleagues, schools and teachers and health experts for their work in the life of the project.

The Editors

Elke Knisel 1 Health(a)wareness

The health of children and adolescents has, for decades, been a topic of interest in most parts of Europe. The World Health Organization (WHO) and UNESCO have supported various campaigns and health programmes. The European Union (EU) and the European Commission (EC) funded several projects dealing with the promotion of health and physical activity in these age groups. Many of these projects have been focussed on the school setting and especially on the subject of Physical Education (PE). One approach is to enhance students' health awareness through modified PE class and other physical or sports activities at school. A recent example of such an innovative approach is the project Health(a)ware: An experienced-based learning and teaching approach for physical and health education (project number: 128737-CP-1-2006-1-DE-COMENIUS-C21) funded by the EC in the Socrates program, Comenius 2.1 action – Training of School Education Staff – with a focus on secondary schools. As a part of the Lifelong Learning Programme of the EU, the aim of Comenius is to support young people in the acquirement of life skills and competencies important for their individual development as a European citizen.

Among the current priority areas of the Comenius programme you can find the topic "Participation in sports". It seems to be of special interest for the EU to help young people to acquire skills and competencies related to a healthy and active life-style in order to respond to the increasing health-related problems of children and adolescents across Europe.

In accordance with the ideas of the Comenius programme, the project Health(a) ware was established in 2006. The concept of teaching health topics at school in order to improve knowledge transfer, individual abilities, competencies and skills, as well as behaviour and habits, requires a pedagogical and didactical framework, and an exceptional health methodology which was developed during the life of the project. The methodology leads to a teaching structure with experimental learning settings including PE class, as well as cross-subject teaching approaches and project work.

The Health(a)ware project was initiated and coordinated by the group of Prof. Dr. Elke Knisel, Prof. Dr. Hanno Strang and Dr. Antje Stache at the Humboldt University of Berlin in Germany. Their research focus lies on the pedagogical and psychological aspects of health. The topics of the cooperating teams at the different universities cover natural sciences and health (Prof. Dr. Marcela Gonzalez-Gross; Polytechnic University of Madrid), health education and intercultural learning (Prof. Dr. Ralf Erdmann; Norwegian School of Sport Science in Oslo), historical and philosophical aspects of health (Assoc. Prof. Dr. Irena Parry Martínková; Charles University in Prague), and health didactics and methodology (Prof. Dr. Michal Bronikowski; University School of Sport and Physical Education in Poznan; Prof. Dr. Konrad Kleiner; University of Vienna).

The idea of the project Health(a)ware was to develop a close partnership between the universities which results in an interdisciplinary approach based on different perspectives of health. Additionally, a close cooperation between local schools and the involved universities was established which leads to health-promoting school networks which work together on a European level. In this framework the European school network HEPE (Health and Physical Education) was built in order to develop an empirical-based and movement-oriented health education approach for secondary schools. Partners of this multilateral school project funded by the EU (project number: CML-BE-07-00514) were the Wilhelm-Maybach School at Berlin (DE) in the coordinate function, the Linderudskole in Oslo (NO), the school I.E.S. El Alamo near Madrid (ES) and the Bundesgymnasium in Vienna (AT).

The outcome of the project Health(a)ware is this handbook. The book consists of two parts. In the first part a pedagogical and didactical framework for school-related health education and health promotion is outlined. In the second part an innovative teaching approach together with teaching examples are presented to show how the idea of health education and health promotion can be implemented. The aim of the book is to link a theoretical framework and practical implications regarding intercultural aspects in teaching health at school.

The target groups of the book are teachers, students and professionals of health promotion and education, pedagogy and didactics, psychology, health sciences and other health-related subjects in different institutions (e.g., schools, universities, and health organizations), societies and non-profit organisations involved in health promotion, health experts and participants of vocational and in-service training. We enable them to extend their health knowledge and their didactical and methodological competencies in addressing young people at the age of 12-16 years with the topic health. Our book provides many teaching examples together with different kinds of physical activity. However, to improve students' health-related behaviour the topic health and physical activity is not limited to the subject PE but includes other subjects in the natural sciences (Biology, Chemistry or Physics) and the social sciences (Languages, Drama, History or Psychology). In our book we show teaching examples with PE in connection with these subjects as proposals for cross-subject teaching. Additionally, we describe teaching examples for school-related project work with the topic health and physical activity which go in line with the interdisciplinary approach of the project Health(a)ware. According to this approach and the pedagogical background the teaching examples include various perspectives of health and physical activity conceptualised in four modules: Body & Measurement, Body & Time, Body & Bodies and Body & Environment.

2 Pedagogical and Didactical Frameworks

Society is constantly immersed in a dynamic process that makes it necessary to continuously adapt. This also applies to school subjects which must evolve according to society's demands. The aim of the project Health(a)ware was to enhance students' health awareness through experimental learning settings which includes PE class as well as cross-subject teaching approaches and project work. The improvement of health knowledge, individual abilities, competencies and skills, and health behaviour and habits requires a pedagogical and didactical framework based on current concepts and interdisciplinary research and discussed in the following articles. Elke Knisel

2.1 Health Literacy and Physical Education

2.1.1 Introduction

There is consensus that schools are the most appropriate setting for improving healthrelated aspects at young ages (van Cauwenberghe, Maes, Spittaels, van Lenthe, Brug, Oppert & de Bourdeaudhuij, 2010). Childhood and adolescence constitute key stages for learning and adopting a health-related and active lifestyle which includes physical activity and sports. Several empirical studies have confirmed that physical activities are vital for improving health in children and adolescents (e.g., Janssen & LeBlanc, 2010; Luepker, Perry & McKinlay, 1996). Hence, it is important to look at the subject Physical Education (PE) and what it can do to equip students with health knowledge and competencies to enable them to take responsibility for their own health and to be observant of others (St Leger, 2001). The question of the acquirement of health knowledge and competencies is essential in the concept of health literacy and is discussed in the following section.

2.1.2 The Concept of Health Literacy and School-related Health Promotion

The term "Health Literacy" was first used by Simonds (1974) and now is commonly defined as the degree to which people have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions (Ratzan, 2001). The World Health Organization (WHO) has described health literacy as the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand, and use information in ways that promote and maintain good health. With the concept of health literacy a differentiation between health education and health promotion and their different outcomes was proposed (Kickbusch, 1997; Nutbeam, 1998).

Nutbeam (2000) illustrated three levels of health literacy: functional literacy (level 1), interactive literacy (level 2) and critical literacy (level 3). Functional literacy refers to the transmission of basic information about health topics, e.g., physical activity, nutrition or drugs. The notion is to increase knowledge of these topics in order to enhance good health. Interactive literacy implies the development of personal and social skills to take care of one's own health through health-related behaviour as physical activity. Critical health literacy indicates advanced cognitive skills which are connected with personal empowerment and social skills to critically analyse health information, to define self-determined health goals and taking action in various situations accordingly.

Health literacy is an important outcome of the discussion of school-related health education and health promotion in the 21st century. According to St Leger (2001) school-based health programmes are characterized by functional literacy (level 1) and interactive literacy (level 2). Level 1 and level 2 are fundamental to educate and promote health. Furthermore, critical literacy (level 3) is not well developed in many schools and countries. Nutbeam (2000) pointed out that the achievement of the third level refers to self-determination and autonomy which are nowadays important goals for Physical Education (PE) and lead to a new didactical approach developed in the project Health(a)ware and presented in this book. In the following pages we examine the development of health topics in PE class in regard to the achievement of Nutbeam´s three levels of health literacy.

Health education and disease prevention has been an important topic in the context of school education since the 1970s. Early initiatives were characterized by the transmission of information to students about health risk factors in the form of determents. Especially in Biology students were given information, e.g., of smoker's legs or of lung cancer, to influence their (preventive) behaviour. The belief was that giving the students such information would develop attitudes towards individual health behaviour (St. Leger, 2001). The school initiatives in many countries at that time were based on the pathogenesis approach describing the development of disease caused by multiple risk factors and processes. However, these campaigns resulted only in "few sustainable behaviour changes" (St Leger, 2001, p. 199) because they did not take into account students' personal skills or social environment (Nutbeam, 2000). These factors formed the background of several concepts in the 1980s which attempted to explain and predict change of health behaviour, e.g., the "Theory of Planned Behaviour" (Azjen, 1985), the "Health Belief Model" by Rosenstock, Stretcher and Becker (1988) or Bandura's "Social Cognitive Theory" (1989) and fits to the idea of interactive literacy.

In conjunction with the focus on personal and social skills was a shift in the understanding of health and disease. Antonowsky (1979) describes in his salutogenesis model health determined by a dynamic process of risk and protective factors. Health is seen as a deficient, active and itself dynamically regulating occurrence. This idea of focusing on factors that support human health and well-being was in contrast to the pathogenesis model based on the doctrine of genesis and therapy of diseases and has been predominant for many years.

In connection with the Ottawa Charter for Health Promotion (WHO, 1986; 1987) and the Jakarta Declaration (WHO, 1997) (see Table 1), and the research about the individual and social health determinants, education authorities revised their notions of school health education (St Leger, 2001).