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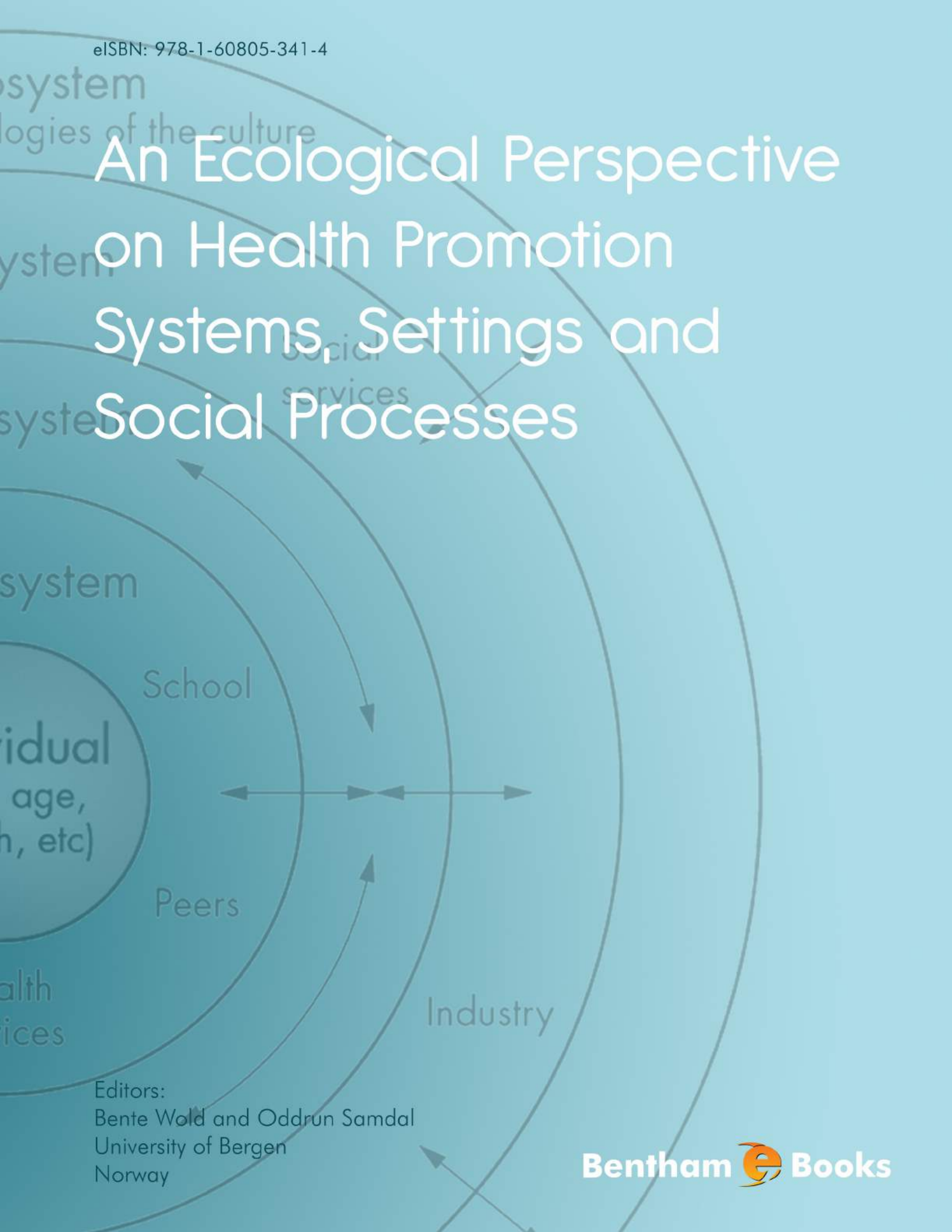
# An Ecological Perspective on Health Promotion Systems, Settings and Social Processes

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# An Ecological Perspective on Health Promotion Systems, Settings and Social Processes

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# FOREWORD

As a participant in the symposium celebrating the first 20 years of research from the editors and many of the chapter authors of this book, and their colleagues associated with the University of Bergen's Research Centre for Health Promotion at the Faculty of Psychology and its Department of Health Promotion and Development, I was humbled to consider the immensity of their productivity and contributions. I should not have been surprised, considering the number of their publications I had seen and used over those 20 years. But recognizing specific research products does not tell a larger story of the parts in relation to the whole; the findings of individual studies in relation to the systems in which they represent subsystems.

This book brings much of the prolific work of the Bergen collaborators to a fitting focus through the lens of an ecological perspective. It brings into sharp relief the contours of practice and the relationships of practice with action research and policy development opportunities. The lens is at least tri-focal, with data and reflection on the individual children affected; the relationships among children, parents, teachers, and others in the school settings; the further layering of school, family and community relationships; and ultimately the implications for national and global health promotion policy. Such layering is the necessity of ecological thinking and theorizing, but the perspectives reflected here bring more. They bring empirical data to bear on the ecological perspective and its implications for practice and policy. Inherent in these reflections is a critique of some health promotion traditions that tend to place the emphasis too exclusively on individual risk factor data, and lead too often to policies that blame the victims of ill health rather than reform the social determinants in systems and environments where their risk factors are predisposed, enabled and reinforced.

The action research lens on the data these editors and authors bring also adds a dimension of reality and generalizability that much academic research and theorizing fails to offer, and most controlled trials in the evidence-based medicine tradition cannot offer to an ecological perspective. The demands of many systematic reviews of the scientific literature in the health (and the education) fields tend to limit the qualified research to a limited range of highly controlled and randomized trials. Guidelines for professional and organizational practices derived from such systematic reviews of individual studies miss the mark of practitioner needs. What they recommend as "evidence-based practices" from such highly controlled experimental studies lack credibility, applicability, and actionability to most practitioners and policy makers because they do not reflect the reality of their practice circumstances. If we want more evidence-based practice, we need more practice-based evidence. This publication offers that, as well as its ecological and global perspectives on health promotion.

***Lawrence W. Green,***
San Francisco

# PREFACE

The book is based on the past 20 years of research and teaching at the Research Centre for Health Promotion at the University of Bergen, Norway. The Centre was established in 1988, at the verge of the establishment of health promotion, and since its very origin, has been concerned with developing research that can contribute to improve health promotion practice. This goal means that the staff has been involved in action research collaborating closely with practitioners in developing strategies to promote population health in a specific setting (*e.g.*, school), as well as giving emphasis to research on identifying determinants of health. Staff members have also been involved in several national and international task forces and networks (both practice- and research-oriented) aimed at developing global health promoting strategies that can be implemented at national and regional levels. The experiences from this practice based research are presented throughout the book.

A core perspective of the book is to criticise public health for being all too willing to merely study associations between risk factors and health endpoints, and in doing so, turning aside from the hard work of examining mechanisms that might account for associations. The book argues that there is a need for an ecological approach to health promotion, which calls for a multidisciplinary approach, acknowledging the importance of macro-level and micro-level conditions. In this book, the ecological systems approach is applied to study processes and mechanisms in a range of public health areas such as family welfare, well-being in school, subjective health and health behaviours among adolescents, and healthy public policy. Examples are provided from international as well as Norwegian research.

The history of health promotion as an ideology and strategy to address public health issues is presented, including the main message from the very first charter of health promotion from a conference in Ottawa in 1986. The essence of the book addresses *what* is health promotion, *why* it is needed, *who* is doing it, *where* it is done and *how* it is done. The book concludes by highlighting how effective health promotion depends on reaching the settings in which people live, and understanding the processes of human interaction in these settings.

We hope the readers will enjoy to read and to learn about our 20 years of experience with health promotion research.

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# BACKGROUND AND SCOPE OF HEALTH PROMOTION

# CHAPTER 1

# Introduction to Health Promotion

## Oddrun Samdal* and Bente Wold

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**Abstract:** The chapter presents the aims of the book, describing *what* health promotion is, *why* it is needed, *who* is doing it, *where* it is done and *how* it is done.

The chapter starts with an overview over the major public health concerns in developed countries, in particular the prevalence and trends in lifestyle related diseases such as cardio-vascular disease and cancer, and in mental health problems such as depression, as well as positive indicators of health and quality of life. The history of health promotion as an ideology and strategy to address these public health issues is presented, including the main message from the very first charter of health promotion from a conference in Ottawa in 1986. Furthermore, the role of health promotion in Scandinavian welfare states is discussed.

The chapter argues that there is a need for an ecological approach to health promotion, which calls for a multidisciplinary approach, acknowledging the importance of macro-level and micro-level conditions. In this book, the ecological systems approach is applied to various public health areas such as family welfare, well-being in school, subjective health and health behaviours among adolescents, and public policy. In the introductory chapter, the connection between the various chapters is explained, with a focus on how the chapters illustrate the social processes and systems involved in health promotion.

**Keywords:** Health promotion, ottawa charter, ecological approach, multidisciplinary, macro-level, micro-level, settings, family, school, policy, subjective health, life satisfaction, well-being.

## WHY THIS BOOK AND WHO IS IT FOR?

Health promotion is a modern ideology and strategy to improve public health. The overall health promotion goals are improved population health and well-being where individuals, communities, and societies achieve their potentials and thereby reduce mortality and morbidity, ultimately leading to reduced health and societal costs (Rootman *et al.*, 2001). It represents a reorientation of public health from addressing individual risk factors of health or risk behaviours to targeting determinants of health and empowering individuals and communities to participate in improving the health of their communities (Kickbusch, 2003; Mittelmark *et al.*, 2008).

Population health is thus no longer the sole responsibility of the individual, but rather the responsibility of the government. This shift in the placing of responsibility for population health has been identified as revolutionary (Breslow, 1985, 1999; Kickbusch, 2003; Mittelmark *et al.*, 2008) and underlines the importance of developing supportive structures and environments for population health. The change in placing of responsibility does, however, not mean that preventing disease and illness through prevention of risk factors and risk behaviours is not part of health promotion, but rather emphasising that it is not enough. The most recent Global Burden of Disease report (World Health Organization, 2008) demonstrates the differentiated needs of focus based on the substantial variation of public health challenges across countries. In developing low-income countries a substantial part of young people die due to infectious and parasitic

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**Bente Wold and Oddrun Samdal (Eds)**

diseases (including malaria), and prenatal and nutritional conditions. On the contrary, in high-income countries the majority of deaths are found in the age group of 60 years and older and mainly due to cardio-vascular diseases and cancer (World Health Organization, 2008). Thus, an intervention aiming at increasing self-regulation skills to quit smoking in an African population, for example, is not likely to improve population health in this region as there are so many social determinants that may prevent the population from exercising such self-regulation skills, for instance, lack of food where smoking may help them to cope with hunger, or no education, preventing them from fully exploring their self-regulation potential. This example demonstrates the new public health aspect of health promotion, namely the need for political action to redistribute resources in order to create best possible health and health equity (Mittelmark *et al.*, 2008).

Building on the health promotion principles, the aim of this book is to present theoretical and empirical knowledge about societal and social processes fundamental to the promotion of health. The book is intended for researchers, practitioners, and students of health promotion interested in the mechanisms that make health promotion work. Research programmes concentrated on the study of processes and mechanisms are presented, covering a wide range of topics from healthy public policy at national and international levels to stress-distress relationships at the level of the individual. The core issue is the understanding of how to enable and sustain a positive development of health and well-being at individual, community and global levels. In order to achieve such a positive development, action is needed at all levels, which means that individuals and groups need to act and possibly also change their behaviour to contribute to public health.

All the presented research programmes involve staff at the Research Centre for Health Promotion at the Faculty of Psychology, University of Bergen, Norway. The Centre was established in 1988, at the verge of the establishment of health promotion, and since its very origin, has been concerned with developing research that can contribute to improve health promotion practice. This goal means that the staff has been involved in action research collaborating closely with practitioners in developing strategies to promote population health in a specific setting (*e.g.*, school), as well as giving emphasis to research on identifying determinants of health. Staff members have also been involved in several national and international task forces and networks (both practice- and research-oriented) aimed at developing global health promoting strategies that can be implemented at national and regional levels. The production of this book therefore has its objective to both build on these experiences and to represent a point of departure for our own continued research efforts, thereby growing from our observed strengths and closing gaps in our research. We hope that the research findings provide our readers with learning and stimulate reflections.

In the following sections of this chapter we lay out in more detail the core principles of health promotion and how we see the overall relevance of our research for the understanding of population health through the interplay among the individual, the community or setting, and national policies.

## WHAT ARE THE CORE PRINCIPLES OF HEALTH PROMOTION AND HOW DID THEY DEVELOP?

Health promotion is defined as “the process of enabling individuals and communities to increase control over the determinants of health and thereby their health” (Nutbeam, 1996). The concept was first introduced in the early 1980’s with the World Health Organization (WHO) having been a driving force of the development and policy anchoring of the concept since its inception. By 1984, the European WHO office had already developed a strategy plan for health promotion. An important part of this work was the production of a discussion paper on health promotion where the definition cited above was developed. The discussion paper identified the following core elements of health promotion (Kickbush, 1996):

1. Health promotion involved the population as a whole in the context of everyday lives, rather than focusing on people at risk for specific diseases.

2. Health promotion is directed towards action on the determinants or causes of health.

3. Health promotion combines diverse, but complementary, methods or approaches.

4. Health promotion aims particularly at effective and concrete public participation.

5. Health professionals – particularly in primary health care – have an important role in nurturing and enabling health promotion.

These elements were identified two years prior to the Ottawa conference held in 1986 (World Health Organization, 1986), which has become known as the corner stone for the establishment of the health promotion field. At the Ottawa conference 200 participants, from around the world, came together to share experiences from programmes and strategies in health promotion. The conference was building on the conference held in Alma-Ata, Russia, in 1978, which addressed the Health for All initiative that had been launched by the World Health Assembly in 1977. The Health for All initiative identified world wide population health aims that should be achieved by year 2000. These aims have later been amended and new aims for 2020 have been set.

It was no coincidence that the groundbreaking conference was hosted in Ottawa in Canada. At the time Canada was observed as the only country with a systematic focus on health promotion and even with a Health Promotion Directorate. Canada is still considered to be in the forefront of health promotion policy and practice. The conference agreed on the Ottawa charter, which clearly stated that a major aim of health promotion is to achieve equity in health by enabling all people to achieve their fullest health potential. To achieve this goal five core principles for health promotion action were identified:

1. Build healthy public policy

2. Create supportive environments

3. Strengthen community action

4. Develop personal skills

5. Reorient health services

By focussing on building a healthy public policy, emphasis is given to demonstrating that all public sectors are responsible for contributing to development of health. The creation of supportive environments addresses both the importance of the social as well as the physical environments of which the individual is a part. All environments should provide a best possible source for development of good health. The strengthening of community action focuses on the core element of health promotion, namely the empowerment of the local communities to themselves identify needs for change and actions to initiate change. Similarly, individual actions towards improving one's own health can be secured through the principle of developing personal skills. Finally, the reorientation of health services aims at providing more resources to meeting the needs of the whole person, and enabling individuals and communities to initiate action to improve their health. As a consequence, fewer resources should be needed for traditional clinical services.

Five more WHO conferences were purposely planned at 2-3 year intervals to follow up on the principles of the first global conference on health promotion held in Ottawa. They were to be held in different parts of the world to ensure that the health promotion initiative should be spread world wide. All the conferences have produced statements and charters. The second conference was held in 1988 in Adelaide, Australia; it

addressed healthy public policies and reiterated the principles of equity and social justice as core elements of health promotion. The third global conference on health promotion was held in Sundsvall, Sweden, in 1991 and was mainly devoted to identifying principles of how to build supportive environments. Four dimensions of the environment were addressed: the social dimension, aiming at stimulating social cohesion in the local community; the political dimension, aiming at ensuring democratic participation; the economical dimension, aiming at facilitating development and health; and the gender dimension, emphasising the importance of utilizing women's knowledge and skills.

In 1997, the fourth conference was held in Jakarta, Indonesia. This conference gave emphasis to reviewing and evaluating the impact of health promotion, to identifying innovative strategies to achieve success in health promotion, and to facilitating the development of partnerships to meet global challenges. Among the innovative strategies identified were: i) the setting approach aimed at health promoting schools, work places, and cities; ii) the target group approach aimed primarily at the elderly, iii) the lifestyle approach primarily aimed at physical activity, and iv) the partnership approach aimed at including non-governmental organisations in the health promotion effort. At the millennium shift the fifth global conference in health promotion was held in Mexico City in Mexico. This conference gave particular emphasis to reducing inequalities in health by developing strategies to ensure that health promoting strategies are included in policies at all levels - international, national, regional and local - and in all sectors. The sixth and latest conference was held in 2005 in Bangkok, Thailand. This conference focused on the determinants of health, taking into account the changes of society since the first conference in Ottawa in 1986, by addressing issues like the impact of globalization, the internet, greater moves towards private sector involvement in public health, and a stronger emphasis on a sound evidence-based approach and cost-effectiveness.

As we can see, the conferences have all addressed core elements of the aims and principles for action laid out in the Ottawa charter. Emphasis has been on the policy and action components with particular focus on empowering people to be in control of their own health. This emphasis means that we can look at health promotion as balancing efforts of top-down and bottom-up processes. The top-down processes are seen through policy development and initiatives taken by the health service or other public, private, or non-governmental bodies with the aim of promoting public or community health. The bottom-up processes are expressed through the actions taken by individuals or communities to promote their own situational circumstances, based on evaluations of what they find to be their key needs and priorities. The strong focus on bottom-up empowerment processes in health promotion has a historical entry point in that it is seen to be building on the health definitions of the strong social movements of the 1970s and 1980s, such as the women's health movement and the gay rights movements (Kickbusch, 2003).

The top-down strategy has frequently been criticised for not being well adjusted to local needs. The major strength of this approach is, however, its theory-driven development and implementation of objectives, and the possibilities of stimulating nationwide action at the community level. The bottom-up strategy builds on local needs and is frequently initiated by the users themselves. This strategy is criticised for giving too much power to the individual participants and for lacking a theoretical basis in the development and implementation of objectives (Pederson *et al.*, 1988). A combination and balance of the two approaches are thus recommended to secure a theory driven and strategic project based on active community participants working for their local needs (Paquet, 2001).

Following the lead star of Canada, the Nordic countries have, although to varying degree, at very early stages incorporated the basic principles of the Ottawa charter in their national health policies as well as in their policies of building a strong welfare state securing work, education, and health for the population (Backhans & Moberg, 2008; Diderichsen, 2008; Fosse, 2008; Palosuo *et al.*, 2008). These three areas have been found to be equally important and interchangeably linked in the development of the welfare state and may explain why the Nordic countries tend to be on the top five list of the United Nation's Human Development Index, which is a comparative measure of a population's well-being based on life expectancy,

literacy, education, and standards of living. Moreover, the Nordic countries have strong traditions of voluntary work both at the individual level through helping neighbors and friends and at the community level through non-governmental organizations (NGOs) and social movements. NGOs have, for instance, in Norway been in charge of the development of many health education initiatives that later have been taken over by the authorities for national implementation. The strong integration of health policies with educational and work policies combined with the traditions of voluntary efforts at the community level, *i.e.* a combined top-down and bottom-up basis, may explain why health promotion efforts so early and to such an extent have been integrated into national policies and actions at the community level, although the policy component possibly is stronger than the community participation component.

In many countries, health promotion is primarily a field of practice and less a field of research. It took over 10 years from the Ottawa conference in 1986 to the conference in Jakarta in 1997 before discussions on theory-driven approaches and evidence were integrated as core elements. Throughout the two decades following the Ottawa conference, the health promotion field has developed from a practice and policy field to also include a stronger theory and research field. There is currently a strong drive towards research-based practice in the field building on numerous evaluations of practices and programmes that have been developed and implemented in the course of these years. The issues of evidence and efficacy are difficult to establish within the field of health promotion as one of its core principles remains that the target group of an intervention should be empowered to identify their own needs and find strategies to achieve change that can meet their needs. These processes are not always congruent with the demands of evidence-based practice. Better research approaches using action and participatory research methods, process evaluation, mixed methods (combining quantitative measures of outcome with qualitative information from participants), and document analysis have, however, more recently provided a better understanding of effective strategies in health promotion.

## WHO IS INVOLVED IN HEALTH PROMOTION?

The short answer to the question of who is or could be involved in health promotion is EVERYONE. A health promoter may include all public or work-related roles, and all private- or leisure-related roles a person holds. The health promotion principles address the role of politicians, all public sectors, public and private employers, teachers, non-governmental organisations, and leisure time coaches and trainers, to name a few, all of whom should include and facilitate health promotion strategies and participatory approaches in their daily running of society, their business, and their tasks. The same principles encourage all individuals to contribute to the development of their own health and to contribute to the improvement of their local community and surrounding environment, again to the benefit of their own health, as well as others health.

Health promotion, thus, has changed the traditional view that health should be the responsibility of the health sector and that health education should be the responsibility of health services and the school. This shift means that health promotion competence is needed in all public and private sectors in order to identify health consequences of planned actions and to ensure that the sector maximises its potential to contribute to population health and well-being. Although changes are observed in health promotion policies and practices at national, regional, and local levels, there is still a long way to go before the health promotion potential at both societal and individual levels is met as outlined by the Ottawa charter. More systematic social movement approaches to health promotion in local life settings in combination with a higher number of educated health promoters that can support the local initiatives are a viable way to continued development.

## THE STRATEGY OF HEALTH PROMOTING SETTINGS

In this book, we argue that an ecological approach to health promotion is the most effective one, by taking into account how conditions at various societal levels influence public health. In such a macro-micro perspective it is necessary to consider individual, family, community, national, and global conditions, as well as how these

conditions affect each other (Bronfenbrenner, 1979; McLeroy, 1988). Positive changes driven by health promotion need to be reflected in the micro-level settings where people spend most of their time (family, school/work, and leisure activities), but health services also play an important role in these settings. Health promotion is generally regarded as being more effective if several settings are involved (Powell *et al.*, 1991). Leif Edvard Aarø and Alan John Flisher, in their chapter *Health Behaviour in Context*, highlight the relationship between different levels and aspects of the environment and how these influence development of behaviours. Maurice Mittelmark, in his chapter *Search for Associations Versus Search for Processes*, also reiterates the relevance of an ecological view of health, with attention to bio-psychosocial processes from the micro- to the macro-levels. Further, it is argued that the role that the physical and social environments play in determining the public's health is of particular importance to health promoters.

Different scientific disciplines place different emphasis on the relevance of the various settings and levels. Political sciences usually have macro-level factors, such as national laws and governance, as their starting point, for example, by investigating whether human behaviour and health is affected by the effective implementation and enforcement of laws and regulations. In behavioural sciences, such as medicine and psychology, the starting point is usually the individual, with the main area of interest being how micro-level individual factors, such as personality, skills, knowledge, and attitudes, relate to development in behaviour and health. Thus, political sciences focus on events at community, societal, and even global levels; while behavioural sciences focus on events in the immediate settings of the individual, such as family relationships and individual coping related to challenges in school or work.

An ecological approach calls for a multidisciplinary approach, acknowledging the importance of macro-level and micro-level conditions, as well as the interdependence between these levels. Recent methodological advances such as multilevel modelling have made the analysis of such interdependence possible, adding to our knowledge about the interplay among individual, community, and global conditions influencing public health.

## HEALTH PROMOTION METHODS AND STRATEGIES

As the main strategy in health promotion is to "make healthy choices the easiest choices," it is evident that it is necessary to make individuals aware of healthy choices, as well as to facilitate healthy choices by maximizing the support for these choices in the environment surrounding the individual. Based on theories and models describing how human behaviour is influenced by psychological, social, and physical conditions at various societal levels, the ecological approach offers a multitude of methods to make healthy choices the easiest choices.

Within the scope of an ecological approach, this book presents research findings on health promotion methods and strategies applied at the global, national, community, and individual level. Moreover, the importance of taking into account the interplay or sometimes lack of expected interplay among these levels, is discussed in several of the chapters. Elisabeth Fosse, in her chapter *National Objectives - Local Practice. Implementation of Health Promotion Policies*, highlights the dilemma of best local practice being seen when there is strong involvement of national top-down strategies and little use of local empowerment bottom-up strategies. Bente Wold, in her chapter *Social Influence Processes on Adolescent Health Behaviours*, demonstrates how individual level smoking behaviours are found to be influenced by both national level and school level smoking policies, indicating that restrictions on smoking lead to lower smoking prevalence in the adolescent population.

Important strategies at the global level are international agreements and conventions, and support for action in developing countries as outlined in the charters of the health promotion conferences. The global WHO initiative on health promoting schools is one example that has stimulated national networks of health promoting schools in almost all European countries and also in Asia, Australia, and North America. In the chapter by Oddrun Samdal and Torbjørn Torsheim, *School as a Resource for Students' Subjective Health and Well-Being*, the

impact of the international initiative on national action and school level policies is discussed. National level strategies involve building healthy public policy and finding ways of effectively implementing this policy and reducing social inequality, as well as reorienting health services. Elisabeth Fosse, in her chapter *Health Promotion Policy in Norway – The Pendulum Swings of 1984 to 2007*, demonstrates how the national level health policy has changed with changing political governments, from a focus on building a strong welfare state emphasising social equalisation during left wing governments to letting the market be given more influence under right wing governments. Frode Thuen and Øystein Mortensen, in their chapter *Relationship Education to Promote Family Health*, highlight the core role Norwegian authorities have played in the development and implementation of family relationship education programmes, underlining the public role families are given in terms of being considered as part of a well-functioning welfare state.

As suggested by the Ottawa charter, important community level strategies are to create supportive environments and strengthen community action; "Health promotion works through concrete and effective community action in setting priorities, making decisions, planning strategies and implementing them to achieve better health. At the heart of this process is the empowerment of communities - their ownership and control of their own endeavours and destinies." Examples provided in this book include experiences from the Norwegian network of Health Promoting Schools presented in the chapter by Oddrun Samdal and Torbjørn Torsheim, where the schools, by following the principles of a health promotion planning model, went through a process of organizational development that allowed all participants in the school community to influence the basis for the change process upon which the school decided. The process addressed anchoring in the school policies, alignment of values and beliefs in staff, and involvement of students and staff in the development and implementation of activities.

At the individual level, numerous concepts and theories in behavioural sciences contribute to the identification of conditions and processes that enable people to develop the personal skills necessary to make healthy choices. Vital psychological phenomena found to influence healthy choices are beliefs, knowledge, self-efficacy, skills, roles, attitudes, and values. Important psychosocial concepts include social support, social cohesion, interpersonal stress, significant others, and social norms. Social influence processes on health are explained by social psychological theories, such as social learning theory (social cognitive theory), the theory of planned behaviour, the Attitude – Social influence – Self-efficacy (ASE) model, the self-determination theory, the social reproduction perspective, and various socialization theories (*e.g.*, ecological systems theory). The book sums up our experience from research on these concepts and theories, with the aim to identify effective models of health promotion research and practice.

Ingrid Holsen, in her chapter *Depressive Tendencies During Adolescence*, addresses, for instance, how depressed mood in adolescent boys and girls seems to vary throughout the teenage years and then stabilises in early adulthood. Part of this instability may be explained by changes in body image in that the level of body image predicted change in depressed mood for both boys and girls, but at an earlier age for girls. In the chapter *School as a Resource for Students' Subjective Health and Well-Being* by Oddrun Samdal and Torbjørn Torsheim, the authors apply the Self-determination theory and demand-control models to illustrate resource and risk perspectives in the relationship between students' experiences of their psychosocial climate in school and their Reported Health and Well-Being. Finally, Bente Wold, in her chapter *Social Influence Processes on Adolescent Health Behaviours*, demonstrates how the theory of planned behaviour can be useful in explaining adolescents' smoking behaviours. In the last chapter, all the different levels and supportive contexts that have been addressed in the individual chapters are taken together through a model that can contribute to understanding the complexity of all interactions and actions that may contribute to public health.

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# CHAPTER 2

# From Associations to Processes

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*I have yet to see any problem, however complicated*
*which, when you looked at it the right way*
*did not become still more complicated*
*-- Poul William Anderson (1926-2001)*
*in "New Scientist", 25 September 1969, 638*

**Abstract:** In this chapter arguments are given to avoid overly-simple views of what causes good and ill health, based on simple associations between proximal risk factors and health status. The author discusses the importance of causal processes to understand why two variables are associated and what this association means; what are the mechanisms of the association, and what other key factors may operate in presumptively causal relationships? It is suggested that an ecological view of health is preferable, with attention to biopsychosocial processes from the micro to the macro levels. Further, it is argued that the role that the physical and social environment plays in determining the public's health is of particular importance to health promoters. This calls for research models that embrace intra-personal, psychosocial and social/cultural processes. Building on the Ottawa principles for health promotion the chapter introduces a model for a whole community approach to health improvement. The model shows how the multi-level processes in community settings and at different system levels shape health. Further, the model makes it clear that understanding these processes are beyond the interests and expertise of any one health discipline and therefore inter-disciplinary approaches are needed.

**Keywords:** Health promotion, public health, health, causality, community setting, community approach, ecological approach, macro-level, micro-level, multidisciplinary, system levels.

## INTRODUCTION

In the 1950's, two American cardiologists noticed a curious association – many patients recovering from treatment for heart conditions exhibited a predictable pattern of extreme time urgency, easily aroused hostility, stubborn competitiveness and extreme vigilance. Before long, therapists were treating people having this syndrome – called Type A behaviour pattern – in an effort to prevent cardiovascular disease. Treatments included, for example, training in the self-management of unnecessarily time-urgent behaviour. For example, some patients were instructed to drive around the block and return to the scene, should they drive through a yellow traffic light. Over the years, research revealed that the likely toxic element in Type A behaviour pattern was hostility, with which time-urgency is associated. However there emerged precious little evidence that time urgency is a causal factor in processes leading to cardiovascular disease. Aside from the possible traffic safety gains, the time urgency intervention was merely time-wasting.

Over the years, we have become wary of placing too much faith in simple associations that often turn out to have no health significance at all. The web of causal factors that produces elevated risk for poor health is understood today to be highly complex, indeed, beyond comprehension in its full complexity. Somewhere

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between overly simple associations and the full complexity of causality, lies the study of partial processes leading to various health states. Models of causal processes used in health research always oversimplify reality, but even highly simplified views of health processes can help to avoid the so called third variable problem, illustrated so well with the story of treatment for Type A.

It is still the case today that that a statistically significant association between a putative risk factor and a health measure can excite great interest, even if the magnitude of the association is quite low. This happens frequently in large scale survey research, where large numbers of participants yield statistical significance even when the risk factor and the health measure share very little variance. In health promotion research and contributing disciplines such as psychology, sociology, political science and education, we are highly sceptical of simple associations in and of themselves. We wish to know why two variables are associated; we seek to illuminate the mechanisms of association, and to discover other key factors in presumptively causal relationships.

Of particular importance to health promoters is the role that the physical and social environment plays in determining the public's health. This calls for research models that embrace intra-personal, psychosocial and social/cultural processes. The need for this level of complexity can be illustrated easily. While an intra-personal model like the Theory of Reasoned Action may predict individuals' choices about starting or stopping a tobacco habit, such theory can not explain why in 2004, the prevalence of tobacco use among men in Vietnam was 73 percent, compared to 4 percent among women (Jenkins *et al.*, 1997). Men are near as capable of reasoned action as are women; so clearly, social and cultural factors play a significant role.

Thus, health promotion today takes an ecological view, illustrated in Fig. (**1**).

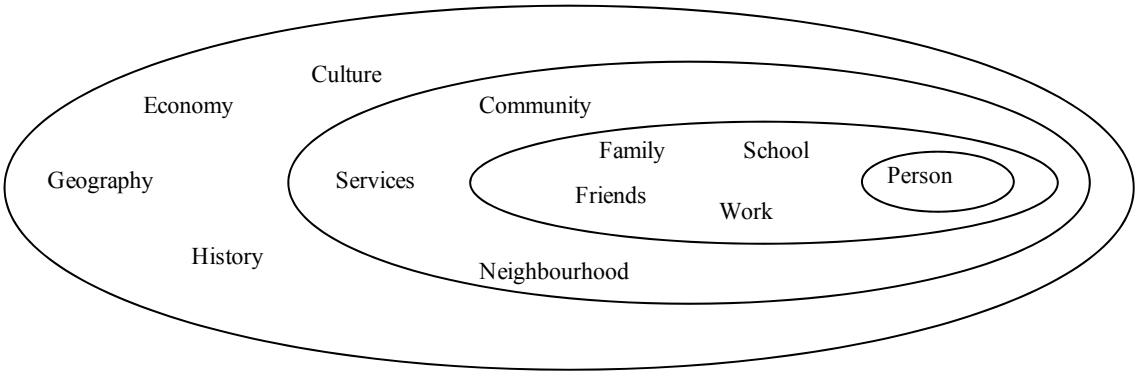


**Figure 1:** An ecological perspective on health

This embedded-ness of person-in-environment calls for an approach to public health and health promotion that has both individual and social components (see Green & Kreuter, 2005 for a detailed treatment of this subject). This is amply illustrated by the case of obesity, a simple-minded view of which would be to place the blame squarely on the obese individual. Fat people might be ostracised, to shame them out of a life of gluttony, they might be educated in healthful ways of living, and they might be treated medically, stapling the stomach to reduce its capacity. The health promotion view also considers factors at the level of the individual, and would embrace education intervention, if not the other alternatives just mentioned. However, education alone would never be considered satisfactory by a health promoter. An ecological approach would combine education and interventions to help shape an environment that supports healthy choices. This is illustrated in Table **1**. Simply educating people about how diet and physical activity affect body mass is an incomplete and inadequate approach, because many factors beyond individuals' control also affect body mass. Unsafe streets, a transportation infrastructure focused entirely on vehicular traffic and urban sprawl can inhibit a physically active lifestyle no matter how motivated a person might be. Proliferation of junk food outlets, media touting

risky living and advertisements by powerful global industries (the sugar industry as a prime example) can counter even the best designed health education campaign.

**Table 1:** Causal web of societal influences on obesity prevalence (Adapted from Ritenbaugh, 1998)

| INTERNATIONAL | NATIONAL/ REGIONAL | COMMUNITY | WORK SCHOOL HOME | INDIVIDUAL | POPULATION |
|---|---|---|---|---|---|
| globalisation<br>development<br>Media | transportation<br>urbanisation<br>health system<br>social security<br>media/-culture<br>education<br>food, nutrition | transportation<br>safety<br>health care<br>sanitation<br>food availability<br>agriculture<br>markets | leisure activity<br>labour<br>infection<br>food choices<br>family, home | movement<br>eating<br>genes | obesity |

Consider the intervention logic that follows from the simple-minded view of obesity (association), contrasted with the ecological view (process):

- Association – Eating too much food, a sedentary lifestyle and obesity go hand-in-hand. Cutting food intake and increasing physical activity will therefore reduce obesity. As obesity is not inevitable and people have the power of reason, fat people are responsible for their own condition. The real cause of obesity lies therefore in the poor choices that fat people make. Engage in intervention to change fat people's choices.

- Process – Patterns of eating and physical activity are associated with obesity, but they are intermediary factors in a biopsychosocial process over which the individual has only part control. People need education about the health benefits of good diet and regular physical activity, but that is not enough. Interventions are required right across the chain of causation, to produce an environment that supports healthy choices.

The importance of an environment that supports healthy choices cannot be exaggerated. In an environment hostile to physical activity, many people struggle to make activity a part of the rhythm of daily life. A lack of infrastructure supporting walking as a main means of transportation (buses, sidewalks, close proximity of home, work and community facilities) means that physical activity has to be carefully planned for as an addition to normal living, *via* visits to exercise centres, recreational bike rides, long driving tours to reach nature, and so on.

However, there *are* communities where public transportation is an efficient and inexpensive alternative to the automobile. There are places where urban and suburban planning emphasise mixed-use neighbourhoods, so that key facilities such as food shops are always but a walk away, and where sidewalks and walking/biking paths are ubiquitous, connecting all points in the community. It is provocative to consider how relocation from a 'hostile' to a supportive environment could result in improved health behaviour, even when *no change in knowledge or motivation occurs*.

## RECENT EVOLUTION OF PUBLIC HEALTH

So far, this chapter has urged that we avoid overly-simple views of what causes good and ill health, based on simple associations between proximal risk factors and health status. The position has been advanced that

an ecological view of health is preferable, with attention to biopsychosocial processes from the micro to the macro levels. It remains to examine what the implications of this shift have been for public health practice and research. That is perhaps best accomplished by a quick review of the development of public health thinking in recent times, leading to today's action- and ecologically-oriented branch of public health, which we call health promotion (see Mittelmark *et al.*, 2008).

Prior to World War II, public health was focused mostly on problems related to infection, accidents, sanitation and hygiene, and depended heavily on environmental interventions and rules and laws to protect the public from avoidable disease, disability, illness and death. After the war, epidemiological research revealed that the emergence of chronic diseases such as heart disease had roots in peoples' new post-war life styles.

For the next forty years, the prevention era dominated public health. Using information, education and persuasion, public health worked to change individuals' health-related behaviours, targeting tobacco use, fat and salt in the diet and sedentary patterns, to reduce chronic disease risk factors such as high blood pressure and blood cholesterol. During the prevention era, public health continued to intervene at the level of the environment and it used policy, rules and laws as it had long done, but these continued to be aimed mostly at the lingering pre-war problems.

By the early 1980's, it was evident that preventive medicine alone could not prevent the spread of chronic diseases. People's health-damaging behaviours were partly self-determined, but the environment played a major role, too. A physician's suggestion that a patient should exercise regularly was hard to follow when there were no exercise facilities, no walk-friendly paths in the community and no culture that valued physical activity as a normal part of daily life. Suggestions to stop smoking were hard to follow when it seems the norm to smoke and the tobacco advertisers pushed the image of smoking as attractive. A doctor's advice to lose weight was hard to comply with when use of an automobile was essential and fast food drive in restaurants offered too-convenient, too-cheap and too-tasty 'food'.

In other words, public health came to realise that just as for problems of hygiene and sanitation, chronic disease prevention required effective preventive medicine and health education, but also environmental interventions to build the social conditions under which one could live a happy, fulfilling live that was also healthy. It already had a tradition for combining interventions aimed simultaneously at the individual and the environment, but not in the new area of chronic disease prevention.

In a series of developments leading to the adoption of the Ottawa Charter for Health Promotion in 1986 and continuing to this day, the idea took hold that in the area of chronic disease prevention as in older public health arenas, a synergistic combination of education and healthy public policy was essential. This idea was fed by research showing that many aspects of life that were not directly in an individual's control had a determining impact on that individual's health and well-being (Fig. **1**). At the same time, health education came more and more to emphasise the importance of working in partnership with communities and their citizens, downplaying the relationship in which public health experts 'knew best', and were therefore in the best position to tell the public what to do and how to live.

Public health came to understand that people valued health not for its own sake, but because health was an essential resource for living the good life. Thus quality of life emerged as having at least as much importance as quantity of life. Also during the past twenty years, public health science began to change, gradually accepting that the classical research methods needed to be augmented by new methods that could help illuminate the social, cultural and physical contexts in which ideas about health and health itself were shaped. There was some movement, also, to expand the concept of health from a narrow focus on disease prevention, to a broader concept in which health was seen as a condition of psychological, spiritual, physical and social functioning that enabled people to live in a state of critical autonomy. It came to be

understood that the very fabric of society determined the people's health, and that individuals' actions were but threads in the fabric, having meaning only in the context of the whole.

All this worked to shape a new public health's understanding of itself and its role in society. It accepted the complexity of the determinants of health and the absolute necessity to work hand-in-hand with other public and private spheres of society to produce better health for sustainable human development and a thriving planet. Public health has not, of course, advanced on all these ideas at the same pace, or with the same degrees of dedication and skill. Many public health workers and institutions would not find themselves in the picture painted above – an idealised portrait named health promotion, the new public health. Still, since 1986 this vision of health promotion as the rejuvenation of public health if not a new public health, has guided research and teaching at specialised research centres world wide. The spirit is captured to perfection in the Ottawa Charter for Health Promotion:

> "Health promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy life-styles to well-being".

## HEALTH PROMOTION RESEARCH

Today's health promotion advocates a whole community approach to health improvement, which is taken up in detail in Chapter 10. Community is in this sense defined loosely, and includes social elements ranging from individuals to large, complex structures such as health and social welfare delivery systems. Accordingly, health promotion research is very taken up with the study of how multi-level processes can produce better psychological, social and physical functioning, but not as ends in themselves. This conception of health promotion is one in which there are multiple pathways to better health and functioning. These paths are not independent, but rather are linked systematically and purposively to produce community conditions that support flourishing.

Summarising, the community conditions that support health do not result mostly from health professionals' planned actions, but are rather the natural result of community member's efforts to organise living conditions and styles to support happy, productive meaningful lives for all. Health promotion's contribution has been to point out that the health care system cannot alone either protect, or be held responsible for, the health status of the community. The main determinants of health are beyond the sole control of the health care system, just as they are beyond the sole control of individuals, and they exert their influence in highly complex webs of causation.

Appropriately, much of today's health promotion research respects the complexity and takes an ecological perspective, as is illustrated throughout this book. We are moving rapidly from the study of associations to the study of processes.

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# CHAPTER 3

# Health Behaviour in Context

**Leif Edvard Aarø[1,2] and Alan John Flisher[3†]**

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**Abstract:** This chapter provides a historical overview of health behaviour research and takes a critical stand towards that most theory-based research on health behaviours is based on social cognition models, focussing mainly on personal factors and perceived aspects of the social environment. The chapter argues that social processes in different settings and at different systems levels must be taken into account by addressing larger social, physical, organisational, cultural and societal contexts when aiming at explaining health behaviours.

A conceptual model describing these contextual factors is presented. The model represents a way to systematize domains or systems of factors (personal, micro and macro level factors) believed to be important when analyzing the widest possible range of external influences on health behaviours. For each contextual factor the mediating or moderating role it may have on the health behaviour outcome is examined by using theory and empirical research findings.

**Keywords:** Health behaviour, social cognition models, social processes, person, micro-level, macro-level, context, mediator, moderator, settings, system levels.

## INTRODUCTION

A number of scientific disciplines and theoretical perspectives can contribute to our understanding of health related behaviours and inform the planning of health behaviour change programmes. Most research on health behaviours is, however, based on social cognition models, which focus mainly on personal factors and perceived aspects of the social environment. The larger social, physical, cultural and societal contexts have received less attention. There is no consensus regarding ways to describe these contexts. In this chapter we present a conceptual model for categorizing such contextual factors. The model is a modified version of one which was previously used in publications co-authored by the two authors of this chapter Eaton and colleagues (2003; 2004).

## GLIMPSES FROM THE HISTORY OF HEALTH BEHAVIOUR RESEARCH

The first scientific publications on evaluations of health behaviour change interventions were published in the 1950s. Among these publications was a report from an experimental study carried out for the American Cancer Society by the psychologist Daniel Horn (1959). In anti-smoking interventions targeting school students he tested five strategies that varied according to message and educational approach:

1. Emphasis on short-term consequences of smoking;

2. Emphasis on smoking as a risk factor for lung cancer;

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3. Two-sided argumentation;

4. Authoritative teaching; and

5. Giving students the role of teaching their parents.

Changes in smoking habits among students in the five intervention groups were compared with those of a control group. The students who were exposed to the intervention in which it was emphasised that smoking would cause lung cancer had lower rates of commencing smoking than those in the control group for both boys and girls. None of the other interventions were effective. Although there was not much reference to theory in reports of this trial, it is probable that the strategies were inspired by Yale University researchers who carried out a number of studies on attitude change in the 1940's and 1950's. Hovland and associates (1953), for example, examined effects of attitude change strategies such as one-sided versus two-sided argumentation and role-playing.

The first efforts to build a systematic theory to predict health behaviours took place around the same time. The Health Belief Model was developed by a group of social psychologists working for the U.S. Public Health Service. They attempted to identify factors that could explain the widespread failure to motivate people to participate in programs to prevent or detect disease (Hochbaum, 1958; Rosenstock, 1974). Later, the model was extended to predict responses to symptoms (Kirscht, 1974) and a wide range of other health behaviours (Abraham & Sheeran, 2005).

About half a century has passed since these first systematic studies of health behaviour predictors and change were carried out. Thousands of articles have been published, and a large number of theoretical models have been suggested. Some are forgotten, some have survived outside the mainstream of health behaviour research, while other theories and models continue to thrive among health behaviour researchers and are being further developed and refined. Excellent summaries and discussions of the surviving models and theories have been published (Gochman, 1997; Stroebe, 2000; Rutter & Quine, 2002; Conner & Norman, 2005). Stroebe (2000) maintains that those models which were developed specifically to account for health behaviours have been less successful in predicting such behaviours than has been the case with more general theories of behaviour, such as the Theory of Planned Behaviour and Social Cognitive Theory.

Over the years, two traditions emerged (Coreil, 1997). In the United States and Europe, health behaviour research has to a large extent focused on individual behaviour change, drawing on conceptual frameworks from social psychology and health psychology such as Social Cognitive Theory, The Health Belief Model, The Theory of Planned Behaviour, The Reasoned Action Framework, and The Transtheoretical Model of Change. In developing countries, on the other hand, until the mid 1990s, health behaviour research was less conceptually and theoretically oriented. The literature was dominated by empirical studies based on biomedical and epidemiological frameworks. The research was strongly disease-focused, and the purpose of studies often was to identify specific determinants of health practices. It was to a large extent oriented towards family and community contexts of behaviours.

More recently, however, social cognition models, which constitute the mainstream of theoretical frameworks in health behaviour research in Europe and the United States, have been applied in developing countries. This has become an issue of controversy. Catherine Campbell (2003) is among the critics of the applications of such models in "highly marginalized communities". According to her, these models conceptualize individuals as rational information processors. Behaviour is seen as determined by a combination of individual factors such as individual action plans, attitudes, and perceived social norms. She admits that such models are sometimes successful in predicting how people behave in relatively affluent countries or groupings. However, she criticizes the application of such models in developing countries because they tend to focus on personal and proximal determinants, neglecting the wider social context. It

has even been argued that psychologists, by introducing such theoretical models, have actually hindered HIV prevention efforts in the developing world (Waldo & Coates, 2000).

The limitations of social cognition models have been pointed out by researchers studying health behaviour also in high-income countries such as those in Western Europe and North America. According to Gochman (1997), in spite of a rich literature on school-based health education programmes, there is little research in which social and physical context of schools or communities is linked with health behaviours. Eakin (1997) maintained that in the field of workplace health promotion and occupational health and safety, studies of health behaviour emphasize personal determinants rather than the nature of the work environment. Baranowski (1997), summarising research on family influence on diet, concluded that there are only a few studies examining the importance of such influences. Dressler and Oths (1997) have criticised health behaviour research for neglecting cultural factors and processes, and for examining health behaviours narrowly in terms of individual motives and attributions. A more recent review of environmental determinants of physical activity, nutrition and smoking has provided some support for the importance of contextual factors (Brug & van Lenthe, 2005). As we have mentioned above, social cognition frameworks have been criticized for being of limited relevance in developing countries' contexts. A similar critique has, however, also been raised as regards their applications in more affluent societies. Conceptual frameworks that include factors at various levels of contexts are obviously relevant in all cultures and countries.

In their review of South African studies of sexual behaviour, Eaton and associates (2003; 2004) distinguish between factors at three levels that may influence such behaviour: Personal factors (*i.e.* intentions, perceived costs and benefits, self esteem), proximal factors (social influences and physical/organizational environment), and distal factors (culture, structural factors). After addressing a range of personal factors that seem to be associated with sexual risk behaviour, they identify a number of important social influence factors, for instance lack of or inadequate communication about sex with parents, lack of parental supervision, counterproductive parental supervision, lack of communication on condom use between sexual partners, peer pressure, and sexual coercion and violence towards the female partner. Physical and organizational factors of importance include limited access to condoms and media, lack of recreational facilities, living on the street, and being in prison. Cultural factors found to be related to unsafe sexual practices were patriarchal and oppressive features of some African cultures, culturally mediated beliefs about the nature of men's sexuality (men's nature is to want many partners), and culturally mediated norms stating that men (and to some extent also women) within a romantic relationship have a right to have sex. A more recent study by Ragnarsson and colleagues (2008) has provided additional support for the importance of cultural factors such as young people's culturally mediated understanding of female and male sexuality. According to Eaton and colleagues (2003), some cultural factors were found to work in favour of responsible sexual behaviour, such as affiliation with religious groups. Among structural factors, the roles of the urban-rural dimension and poverty were highlighted. Adolescents in poor, rural areas were found to have less access to media and to be less well informed about HIV/AIDS. Lack of money and material resources may lead women into offering sex in exchange for money, presents or food. Sexual abuse and coercion is more common among those of low socio-economic status and less education. Towards the end of their review, Eaton and associates exemplified some more complex interactions between factors across the three levels, and from their review it is obvious that proximal factors often serve as mediators between distal factors and factors at the personal level.

The soundness of the conceptual framework suggested by Eaton and colleagues (2003) is supported by their review of studies. By moving beyond the personal factors and the perceived social norms that are usually covered by social cognition models, it captures more of the contextual domains that have been covered by studies conducted in developing countries. In the present paper, however, we would like to suggest some adjustments to their model, and we would like to elaborate more thoroughly on its applications in health behaviour research.

Before moving into the domain of contextual factors, it remains to be said that there is no obvious theoretical conflict between social cognition models and a wider conception of factors that may influence health related behaviours. In his description of the Theory of Planned Behaviour, Ajzen (1988) maintains that the social cognition factors described in his model constitute all factors needed for predicting the category of behaviours relevant to the model. All other factors, including those of the wider social context, are assumed to be meditated by the more proximal behavioural determinants described by the model (attitudes towards the behaviour, subjective norms and perceived behavioural control). This does not make factors of the wider social context less relevant. Conner and Sparks (2005), for instance, have argued that it is important also to examine contextual factors: "While the TPB is concerned with proximal psychological influences on behaviour, we have to recognize the broader social structure within which these influences develop".

## A Contextual Framework

Various frameworks for systematizing levels of social processes have been proposed in sociology, psychology, public health and health promotion. Parsons (1949) suggested four levels; motivational forces and mechanisms, the situation, culture, and institutional structure. In later publications, and within a more comprehensive conceptual framework, he distinguished between four interrelated societal subsystems: the behavioural system, the personality system, social organization, and culture. In social psychology Krech and Crutchfield (1948) proposed three levels of analysis: the individual, the group and organizations/institutions. Other social psychologists, such as Hiebsch and Vorwerg (1971), also preferred three levels of analysis: the individual, the group and the structural (or societal) level. The French social psychologist Doise (1986), when comparing levels of explanation in American and European social psychology journals, pointed out four levels of explanation: the intraindividual level, the interindividual and situational level, the social-positional level, and the ideological level. Hewstone and Manstead (1995) made intergroup relations one of the levels of analysis in their system.

The most prominent among models of contexts in developmental psychology is probably Bronfenbrenner's ecological model (Bronfenbrenner, 1979). He distinguished between four levels: macro-, exo-, meso-, and micro. Microsystems refer to a person's immediate surroundings. The mesosystem refers to connections among a person's microsystems. Exosystems are more distal, and influence the person through microsystems (for a child, it could for instance be parents' workplaces), and macrosystems refer to aspects of culture and organization of the larger society. The model contains of circles surrounded by new circles in layers. The idea of concentric circles is also applied in similar models in community psychology. Dalton and colleagues (2007) circles (from the inner to outer) have been labelled: individuals, microsystems, organizations, localities, and macrosystem.

All models mentioned have their shortcomings. Important factors have been neglected, the order of factors may be questioned, concepts are in some cases too global to make much sense, the descriptions of levels may lack sufficient theoretical clarity, and the complexity of interrelationships and processes is not always sufficiently well acknowledged. But there are also important lessons to learn from most of the models mentioned. In the present paper we aim at combining some of the best features of existing models in order to suggest a model which may prove to be useful in understanding contextual influences on health related behaviour. Other researchers will surely identify problems also with this model.

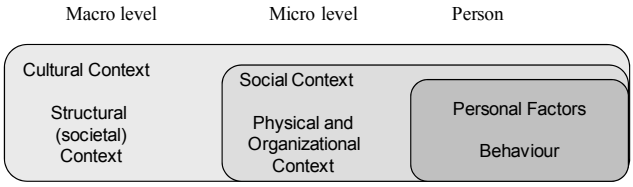


**Figure 1:** Health behaviours in context: a conceptual framework (Adapted from Eaton, Flisher & Aarø, 2003; 2004).

Our conceptual framework for contextualizing health behaviours is shown in Fig. (**1**). The framework is too comprehensive for being tested directly against any single set of data, but rather represents a way to systematize domains of factors that we believe are important to take into account when analyzing the widest possible range of external influences on health behaviours.

### *Personal Factors*

As already mentioned, a number of theories and conceptual models have been applied in studies of factors which may influence health related behaviour. There are a lot of communalities across models (Bandura, 1998). We will take a closer look at the Reasoned Action Framework (RAF) in order to explain the role of personal factors in predicting health behaviours (Fishbein & Ajzen, 2010). Its limited number of elements and its simple structure may explain its widespread popularity in health behaviour research. According to the RAF, behaviour is primarily determined by one's intentions. If you intend to do something, you are more likely to actually perform the behaviour. If you do not intend to do something, it is less likely that the behaviour will be performed. Intentions are influenced by three broad factors: attitudes towards the behaviour, subjective norms (injunctive norms and descriptive norms), and perceived behavioural control. These three factors are in turn formed by beliefs (outcome beliefs, normative expectancies, control beliefs) and evaluations of such beliefs. These three factors and their associated sets of beliefs (and evaluations of beliefs) are assumed to be the only factors of relevance when analyzing direct predictors of intentions. Behaviour itself is assumed to be influenced by intentions, but with actual control as well as perceived behavioural control as possible moderators of this relationship. Lack of control may contribute to blocking the impact of intentions on behaviour. External factors as well as various personality traits are assumed to influence behaviours only indirectly, through the paths just described. The importance of the factors described in the Reasoned Action Framework (and its predecessor, the Theory of Planned Behaviour) has been demonstrated in a large number of studies (Conner & Norman, 2005; Fishbein & Ajzen, 2010).

There is nothing in the contextualizing conceptual framework suggested in Fig. (**1**) that is in conflict with the causal pathways postulated in the RAF. Some of the influencing factors described in the RAF are easily subsumed under "personal factors". This is certainly the case with intentions, attitudes towards the behaviour and behavioural beliefs. The location of subjective norms within our conceptual model is, however, less straightforward. Subjective norms can be seen as the representation in each individual of social influences. When subjective norms are operationalized in the RAF, this is done with reference to specific significant others. A young woman's perceptions of significant others' expectations regarding her use of alcohol may serve as an example. Significant others may include for instance father, mother, siblings and peers. Not only their expectations (as perceived by the young woman), but also her evaluation of how important their expectations are to her, should be measured. By combining normative beliefs with evaluation of these beliefs across a number of significant others, a total score for subjective injunctive norms may be calculated. If we also ask about the informants' perceptions of significant others' behaviour (for instance their use of alcohol) and his or her evaluations of how important they are to her as examples, these may be combined into an index of "descriptive norms". It is assumed that others' expectations as well as their behaviour influence own behaviour. The distinction between injunctive norms and descriptive norms is consistent with Cialdini and colleagues (2001).

The concept of social norms goes beyond the domain of subjective norms. Subjective norms may be seen as the personal representations of social norms. There is not necessarily a perfect correspondence between "sent norms" and "received" (or "perceived") norms (Rommetveit, 1953). Also, it is reasonable to assume that there are stronger associations between perceived norms and behaviour than there would be between sent norms and behaviour. Furthermore, in statistical terms, perceived norms may mediate associations between sent norms and behaviour. Normative influences cover important aspects of the interaction between the person and significant others. Norms are located in the person (subjective norms, perceived norms) as well as in the social context (descriptive norms, injunctive norms, sent norms) and are formed

through processes of interaction and communication between the person and significant others as well as in interactions between members of social groups.

In Bandura's Social Cognitive Theory, another approach is taken in order to describe social influence processes. In Bandura's conceptual system, outcome expectancies are most important in the process of forming behaviour. Outcome expectancies are defined as the person's beliefs regarding consequences of a specific behaviour, and it is distinguished between three broad domains of outcome expectancies: physical outcome expectancies (for instance somatic health outcomes of a behaviour), social outcome expectances (how will other people react), and self-evaluative outcome expectancies (to what extent is a certain behaviour consistent with our self-standards). Social outcome expectancies refer to the social consequences of a specific behaviour. If a young person is observed drunk at a party, will this be well received or less well received by his or her peers? Outcome expectancies refer to a person's beliefs about significant others' reactions. They are representations, and therefore belong to the domain of person factors. They are, however, likely to reflect significant others' actual behaviours and reactions, and they therefore indirectly describe other people.

There are a range of personal factors which are generally not addressed in studies that employ social cognition models, for instance locus of control, self esteem, mood, emotions and personality factors (such as sensation seeking and conscientiousness) (Kraft & Rise, 1994; Conner & Abraham, 2001). Wiium and colleagues (2009) assumed that psychological reactance could be regarded as a personality trait and showed how a measure of reactance was correlated with smoking habits. There are also important cognitive concepts that may contribute to our understanding of health behaviours, such as schemas, scripts and heuristics. There are also personal factors in other social cognition models, such as susceptibility, severity, and threats (all related to diseases or other health consequences of behaviours) in the Health Belief Model (Strecher *et al.*, 1997). This broader range of personal factors will not be dealt with in this chapter. However, several of these factors have received at least some empirical support, and may prove sufficiently important to be included in future models of health-related behaviour. Further research and theoretical development are necessary before this can be achieved.

### *Social Context*

In this text, social context refers to influences occurring as part of our interactions with other people. Aspects of the social context have already been touched upon in the previous section on personal factors. The importance of peers and parents in forming the smoking habits of adolescents has been demonstrated in a number of studies (Mercken *et al.*, 2007; Bricker *et al.*, 2007). Social support from a spouse has been shown to contribute to the success of smoking cessation efforts (Carlson *et al.*, 2002; Latkin *et al.*, 1999). Involvement in sports and physical activity is to large extent a product of influences from family, peers and members of the local community (Anderssen & Wold, 1992). The importance of social influences on behaviour is the most persistent message coming out of decades of research in social psychology. And in health behaviour research injunctive and descriptive norms have proven most important as predictors of health related behaviour. Still there is no consensus regarding how to conceptualize such influences. In mainstream social cognition models, social influences are usually described with concepts such as subjective norms and social outcome expectancies. A few researchers have actually moved beyond the domain of perceptions and introduced the more inclusive term 'social norms'. Still the pictures of social influence processes painted in social cognition models are rather pale and static. These models do not succeed well in taking into account the dynamics of interpersonal interactions and the processes unfolding in social groups and networks. Such dynamics and interactions are obviously beyond the scope of these theories and models.

A highly interesting theory that does not belong to mainstream health behaviour research is Harry Triandis' model of social motivation (Triandis, 1980). Like the Theory of Planned Behaviour and the Reasoned Action

Framework, it is a member of the family of expectancy value theories. Consistent with the RAF, Triandis (1980) suggests that intentions play a key role in influencing behaviour. When describing influences on intentions, Triandis postulates three broad sets of determinants: affect, perceived consequences (as well as evaluation of these consequences), and social factors. Social factors include "the individual's internalization of the subjective culture of the group of people with whom the individual interacts most frequently or which she or he uses as reference group" (Triandis, 1980, p. 218). Triandis brings in aspects of the social environment such as membership groups and reference groups, and he distinguishes between three aspects of social influences, namely norms, roles and values. He also distinguishes between the objective existence of, and perceptions of norms, roles and values that individuals use to judge appropriateness of behaviours in various contexts. Triandis presents a more detailed and lively conceptualization of social influences than is the case with other social cognition models.

### *Physical and Organizational Context*

Depending on how social context is defined, it may in fact also include organizational aspects of the environment, and such a wide definition of social context is common in the sociological literature. A distinction may be drawn, however, between influences stemming from informal interactions with others, and influences which are related to formal aspects of the surroundings. The latter include written rules and regulations, and behaviour which is not consistent with such rules and regulations may be sanctioned. The distinction between formal and informal aspects of social influences is particularly obvious within organizations such as workplaces and schools. The behaviour of employees is to some extent determined by formal rules. A director is expected to meet regularly with his closest subordinates in order to guide and provide feedback on their work. A teacher is expected to spend a specific number of school hours in class and to carry out a set of tasks, such as lecturing on specific topics and administering tests. Students are expected to be present during school hours, to follow instructions given by their teachers, and to participate in groups and do their homework. Within these formal frames, however, the way people behave can vary considerably; for example, some teachers may be more supportive than others.

Formal rules which have a direct impact on health related behaviours may stem from legislation such as bans on smoking in public places, but such formal rules may also be established locally. Examples of such local establishment of regulations on smoking behaviour include prohibition of smoking among students and teachers during school hours. The ban on smoking in bars, restaurants and other similar establishments in countries such as Norway and South Africa are examples of national legislations which impose strong and effective restrictions on behaviour of individuals (Braverman *et al.*, 2008). Øverland and associates (2010) have shown strong associations between rules and regulations as regards tobacco use at school (as reported by the students) and their actual use of tobacco. Strict regulations were associated with much lower prevalence of tobacco use (smoking or use of wet snuff).

The importance of the physical context is particularly obvious when it comes to physical activity. Skiing is not easy in the present climate of coastal Western Norway or the Netherlands. Enjoying nature is not easy in heavily urbanized environments. In their review of studies on possible environmental determinants of physical activity in adults, Wendel-Vos and associates (2005) concluded that there is not much published supporting evidence of the impact of physical context on physical activity. This might, however, be due to inadequate research designs and lack of good studies. Distinctions can be made between availability of and access to environments conducive to physical activity and sports; the functional aspects of such environments; and the aesthetic appeal and attractiveness of architecture and of natural environments. Haug and associates have shown that the level of physical activity among school students is much higher in school environments with available facilities for sports and physical activity (Haug *et al.*, 2008).

Physical environments are important in the field of injury prevention. There may be direct effects of physical equipment on the risk of having accidents (antilock braking systems in cars, safety barriers on

kitchen stoves) and protection against consequences of accidents (use of seat belts). But physical devices may also have a positive effect on behaviour (systems for hindering drunk drivers from starting up engine in cars, speed humps). While health education campaigns and social marketing may take long time and need interventions through multiple channels of communication in order to influence behaviour, changes in physical environments may lead to instant change in behaviour and immediate reductions in risk of accidents and injuries (Lund & Aarø, 2004).

The physical context has also proven important in the field of nutrition education. In order to increase the intake of fruits and vegetables among children and adolescents, educational approaches alone, aiming at changing personal factors such as beliefs, attitudes, and self efficacy, have in many cases proven ineffective. Availability and accessibility of fruits and vegetables is, however, consistently associated with intake (Bere & Klepp, 2005). The distinction between availability and accessibility is worth noticing. Availability means that something is possible to get hold of, at least with some investment of efforts. If carrots and apples are placed in a drawer in the fridge, it is available. Accessibility means it is there, visible and ready for consumption. If fruit and vegetables are cut into smaller pieces, put on a plate and placed on the table, these fruit and vegetable items are not only available, but also accessible (Cullen *et al.*, 2003).

### *Cultural Context*

The concept of culture has a number of definitions. A variety of words are used to define 'culture' for instance behaviour, habits, manners, ways of living, attitudes, social norms, beliefs, values, knowledge, ideas, symbols, and symbolic meaningful systems. This means that culture may incorporate cognitive, behavioural, and social factors. It is a broad term, and probably impossible to define in such a way that all researchers across disciplines would approve.

In our context, cultural factors refer to aspects of our social life which tend to carry over from one generation to the next[1]. Alcohol use can for instance be embedded in cultures and traditions which are resistant to change and which mould the drinking habits over centuries. Iontchev (1998) distinguishes between three patterns or traditions of drinking in Central and Eastern Europe: the Mediterranean (wine drinking), Central European (beer drinking) and the Northern European (distilled spirits such as vodka). These drinking patterns have their roots and origins in cultures existing hundreds and even thousands of years ago, in ancient Greece, in the Roman Empire, and in the drinking cultures of the Vikings. Cultural patterns are probably the most difficult set of factors to change through interventions and public health policies. The radical changes in social and cultural norms related to smoking (denormalization of smoking habits) that have taken place through long-term orchestrated action in many countries do, however, give reason for some optimism regarding the possibilities of influencing aspects of cultures.

In Romania, there is a traditional poem which expresses an interesting cultural barrier to health behaviour change. It is based on a story which has been told over generations, and goes like this. There were three shepherds looking after their sheep in the hills of the Karpatian Mountains. Two of the shepherds conspired against the third one, the one with the finest flock of animals, planning to kill him and steal his kettle. A small lamb, actually the favourite lamb of the third shepherd, heard them talking about their plan to kill him, and told this to her master. The third shepherd, however, took no precautions. This was his destiny, and there was nothing to do about it. He just told the little lamb what to tell his mother and his relatives. The name of the little lamb was Miorita, and this is also the name of the poem. This poem is taught in schools and is well known by every person who has grown up in Romania. It has become part of Romanian culture and can be understood as an expression of aspects of this culture. In a more modern vocabulary we would perhaps say that this is an example of fatalism or lack of agency. We might also use terms like lack of self efficacy or low internal locus

[1]The word 'generation' does not necessarily mean transference from father and mother to offspring. It could also mean from older students to younger students in the school setting, or from old workers to newcomers in the workplace setting. In research on safety in workplaces, a concept of "safety culture" has been suggested (Guldenmund, 2000).

of control. Even today, although perhaps not so much among young people, this kind of thinking is common in Romania. What happens will happen anyway, and there is nothing we can do about it. This kind of worldview, attitude and reaction is of course not exactly consistent with what we want to achieve when advocating and promoting healthy behaviours in prevention programmes.

Cultural factors may sometimes contribute towards maintaining behaviours which are conducive to health. The use of the natural environment for recreational physical activity has a long tradition in Norway. It is quite common that families spend weekends hiking in the mountains or walking in forests or along lakes and fjords. In winter and early spring, skiing is common for large groups of Norwegians, young and old. When children become used to this kind of family activities as they grow up, they are likely to bring this tradition on to new generations. The Polish-Norwegian sociologist Nina Witoszek (1998) interviewed native Norwegians as well as immigrants to Norway about their ideas of what constitutes important aspects of living a good life. She asked the immigrants what they had learned about living a good life from native Norwegians, and to what this extent this included use of the natural environment. Her study was based on qualitative in-depth interviews. Among her findings, however, some simple numbers stand out as particularly striking. Among 20 Norwegians, 19 maintained that nature was an important aspect of a good life as well as their personal identity. Among immigrant informants, only 2 out of 20 mentioned nature as important for them. Some immigrants even experienced Norwegians' strong affiliation with nature and the natural environment as strange and hard to understand.

### *Structural Context*

By structural context we refer to the way society is organized; economy, legislation, governmental organizations, and political institutions. Health behaviour is to a large extent, directly or indirectly, influenced by the structural context. An important category in our context is those laws that directly regulate behaviour. There are laws which prohibit drunk driving, smoking indoor in public places, and the use of a number of addictive substances. In many countries, use of seat belts is mandatory. There are laws that indirectly influence behaviour by prohibiting sales of tobacco to adolescents under the age 18. These laws are products of political processes and decisions.

Economic factors have strong and direct impacts on behaviour. Consumption patterns influence health. A number of products have obvious negative impacts on health, for instance alcohol, tobacco, and high consumption of animal fat and sugar. Other products have positive impacts on health, for instance bicycle helmets, bicycles (if they lead to more physical activity), and high consumption of fruit, vegetables and fibre-rich food items. The relationship between price and demand for a commodity is often described with the term "price elasticity". When the price increases, the demand usually decreases. If there is a 5% reduction in demand with 10% price increase, the price elasticity is -.5. If the demand decreases by 10% with a 10% increase in price, the price elasticity is -1.0. The price elasticity varies across populations and population subgroups. The price elasticity for cigarettes is generally assumed to be around -.4 among adults in Western countries. For young people and poor people it is higher (Chaloupka *et al.*, 2000). Increasing prices of unhealthy products and decreasing prices on healthy products is one of the few intervention strategies which tend to influence low income groups more strongly than more well off population segments.

Promotion of sales of tobacco has been driven by tobacco companies' hunger for profit. The alcohol industries of central Europe are actively lobbying against strong restrictions on alcohol marketing and sales. There are many examples that commercial interests are in conflict with health interests. Albee and Gullotta (1997) summarize their experiences with battles for health (including the controversies around the establishment of the National Institute of Mental Health and Center for Substance Use Prevention in the United States) by suggesting a principle that all who promotes health should take to heart: "Someone, somewhere, somehow, profits from the misery, illness, and poor fortune of others".

Processes in the economy also have strong impact on health behaviours through another type of process, namely the production of social inequality. Studies have shown that there is a strong association between socioeconomic status and health behaviours. Changes in lifestyles have usually started in high status segments of populations, and then spread gradually throughout populations, with low-status groups being the last ones to follow. This was for instance the case when tobacco was introduced in Europe in the 16th century, and it has been the case when non-smoking has been promoted through smoking control programmes. These diffusion processes are well described by Rogers (2003). Presently, healthy lifestyles are more common among high status groups, and this in turn contributes to producing socioeconomic inequalities in health. Similar processes are known across a number of health-related behaviours.

A most interesting and impressive example of societal changes are the transformations of economies in Eastern Europe from bureaucratic socialism to capitalism. These transformations have had dramatic effects on health behaviour. In countries like Poland, the Czech Republic, the Slovak Republic and Hungary there has been a marked reduction in smoking and alcohol consumption, and vegetable oils are to some extent replacing butter as an ingredient in cooking. This has led to a positive change in public health indicators such as general mortality and morbidity related to lifestyle factors (Zatonski & Jha, 2005). The societal changes that took place during the 1990's made it possible to introduce smoking control programmes including stronger tobacco legislation, and the new market economies allowed for import of inexpensive vegetable oils.

**Processes of Mediation**

In statistics, a mediator can be defined as a third variable that transmits the effect of one variable to another (MacKinnon, 2008). Low socioeconomic status can for instance be associated with depression because of the combined effect on depression of all daily hassles which are associated with living a life in material deprivation. Hiebsch and Vorwerg (1971) suggested that the groups we are members of, tend to mediate influences from the larger society on individual citizens of any society.

Legislation which includes a total ban on smoking in restaurants and bars has been introduced in some countries. Ireland and Norway were among the first countries to introduce such bans. Such a ban is a nation-wide regulation, but is enforced and practiced at the local level. In this example the introduction of the legislation is the independent variable, the local enforcement is the mediator, and the actual behaviour of customers is the dependent variable. In Norway almost all customers respected the new ban already from the first day it entered into force, and exposure to in-door environmental smoke in bars and restaurants was practically eliminated (Directorate for Health and Social Affairs, 2005). A high level of willingness to enforce this legislation among owners and employees in bars and restaurants contributed to its success. Among smokers there was a remarkable readiness to comply. Introducing such bans before there is a high level of support among the general public would probably lead to frequent non-compliance. Local enforcement would be less effective. In this case, local enforcement was necessary, but rather easy to practice, and highly effective.

Mediational processes may also unfold slowly and over longer periods of time. Bans on smoking in public settings have probably led to changes in social norms regarding the acceptability (or rather the lack thereof) of smoking in settings not covered by the legislation itself. The proportion of people in Norway who are not willing to accept smoking in their own homes has increased over the years. In 1993, 17% of adult Norwegians agreed with the statement "No one is allowed to smoke in my home". In 2006, the proportion agreeing was 75% (Directorate of Health and Social Affairs, 2007). A simple three-variable mediation model is obviously not sufficient to capture the complexity of changes in behavioural norms. These processes may presuppose interpersonal communication on smoking-related issues and involve interplays with changes in factors like behaviour, beliefs and personal attitudes. We may still imagine that limiting smokers' behaviour in public settings may contribute to changes in social norms related to smoking in

people's homes. In this case, the legislation was the independent variable, smoke-free environments in bars and restaurants the mediator, and more restrictive practices as regards smoking in people's homes the dependent variable.

Mediational processes may also take place at the person level. Based on Social Cognitive Theory it is reasonable to hypothesize that effects of school-based smoking control programmes are mediated by their influence on person level factors such as smoking outcome expectancies or self efficacy with regard to coping with situations when students are offered cigarettes. As previously mentioned, Ajzen (1988) has maintained that all contextual factors external to his theoretical model influence behavioural intentions and behaviour through the three predictors in his model (attitudes, subjective norms and perceived behavioural control).

**Moderator Effects**

In statistical terms, when the effect of one variable (independent) on another one (dependent) depends on the level of a third one, the third variable is called a moderator. One of the most widely used examples of a moderator situation is the relationship between stress, distress and social support. There is some support in the scientific literature that social support may serve as a buffer against the negative health consequences of exposure to stressful life events. This is called the buffer hypothesis (Ystgaard *et al.*, 1999).

In research on predictors of health-related behaviours, external or internal barriers can moderate the relationship between intentions and behaviour. For example, the presence of warm winters with rain can reduce the probability that an intention to commence skiing will result in this being translated into behaviour (Kok *et al.*, 1996). If you want to stop smoking, but you have a hard time in your job, it would perhaps be easier to find excuses for not really trying. In this case, intention to stop smoking is the independent variable, smoking behaviour is the dependent, and stress at work serves as the moderator. As our two examples illustrate, barriers blocking the relationship between intentions and behaviour may be external (weather) or they may be internal (feeling stressed).

It has been suggested that effects of school-based interventions against smoking are more likely to succeed if they are combined with mass media campaigns. In this case, a school-based intervention programme (delivery of the programme or not) serves as our independent variable, a measure of smoking behaviour serves as dependent variable, and mass media campaign (programme delivery or not) would be our moderator. A study by Flynn and associates provided support for this hypothesis (Flynn *et al.*, 1992). This illustrates the more general idea that effects of one specific intervention depends on its relationship to other ongoing intervention activities. The total sum of a number of interventions is not necessarily a simple sum of all individual interventions. Specific combinations of interventions may prove to be particularly effective.

Other contextual factors, beyond the presence or absence of other interventions, may also moderate effects of interventions. Interventions targeting adolescent alcohol use are likely to be more effective if there is a social climate where parents are ready to support messages communicated to their teenage sons and daughters through schools and media. Bans on smoking in restaurants and pubs are more likely to succeed if there is already considerable support for such measures among customers.

**More Complex Processes**

Conceptual models are, of course, never able to capture the complexity of processes unfolding in the real world. Increasing the complexity of our models would, however, make them less useful, more pretentious, and probably contribute to simplifying our images and understanding of real world processes even more. Rather than adding new elements to the model that we have suggested, we would like to emphasize that the model must be understood only as an attempt to capture a few important aspects of a multi-faceted and

complex reality. We have already dealt with the difficulty in distinguishing clearly between levels. Social norms can be defined as others' behaviour (descriptive norms), others' expectations (injunctive norms), or as our perceptions of others' expectations (perceived norms or received norms). What be believe other expect from us may also be described as aspects of our cognitions. The concept of social norms therefore crosses the border between social environment factors and person level factors. Furthermore, processes of mediation may involve more than one simultaneous mediator. Moderator situations may involve more than one single moderator. And there may be more complex patterns of meditation and moderation processes (MacKinnon, 2008).

Bandura (1977; 1986) uses the concept "reciprocal determinism" when describing the patterns of two-way influences taking place between three of the factors in our model; behaviour, other person factors, and environmental factors. He maintains that behaviour, cognitive and other personal factors and environmental influences all operate interactively as determinants of each other. The term 'reciprocal' refers to the mutual action between causal factors (Bandura 1986, p. 23-24). Bandura adds that reciprocality does not mean symmetry in the strength of bi-directional influences. The relative influence of the three factors may vary according to the kind of behaviour in question, personal characteristics as well as the context. Bandura's concept of reciprocal determination may actually serve well also in our context, particularly if we keep in mind the possibility of asymmetry of influences. Consistent with Hiebsch and Vorwerg (1971), we would argue that societal structures tend to influence the life of people more strongly than individual persons are able to influence societal structures. There is an obvious asymmetry in favour of societal and cultural factors over personal and environmental ones. This asymmetry may, however, depend on country, culture and sociodemographic position. Some segments of the population have more power and influence than other segments, and some societies are more receptive to the voices of its citizens than is the case in other societies.

Occasionally, through collective action, changes in environmental or structural factors, brought about by initiatives made by individual citizens, may take place. Bandura's concept of 'collective self efficacy' represents an expansion of his self efficacy concept, and is defined as a group's shared belief in its conjoint capabilities to organize and execute the courses of action required to produce given levels of attainments (Bandura, 1997, p. 477). Collective self efficacy is not simply the sum of the self efficacies of its individual members. Group functioning, according to Bandura, is the product of interactive and coordinative dynamics of its members. Some of the factors of importance for the collective self efficacy of a group are the mix of knowledge and competencies in the group, how the group is structured, how its activities are coordinated, how well it is led, and the degree to which its members join forces towards a common goal.

**Translations into Action**

There are a number of models which have been developed for the purpose of guiding action for promoting health. Some are narrowly focused on the behaviour change process, such as the Transtheoretical Model of Change (Prochaska *et al.*, 1992). Other models are more comprehensive, covering a wider range of intervention approaches and contextual factors, examples of the latter being The Precede/Proceed Framework (Green & Kreuter, 2005) and the Intervention Mapping approach (Bartholomew *et al.*, 2001). Social cognition models have their limitations when planning health behaviour interventions, but can at least be used as an approach to identify critical beliefs underlying intentions to perform specific behaviours (Fishbein & Cappella, 2006).

Fishbein and Cappella (2006) point at communication theory as one important source of ideas and tools for intervention when planning health behaviour change programmes. There are, however, a wide range of theories, theoretical models, and concepts useful for designing intervention programmes. Important, and largely overlapping fields are (beyond Social Cognitive Theory and Social Cognition Models, which have been dealt with above) social psychological research on attitude and behaviour modification (Eagly &

Chaiken, 1993), social marketing research (Kotler & Lee, 2008), diffusion of innovation perspectives (Rogers, 2003), economics (Bickel & Vuchinich, 2000), and research on effects of laws and regulations (Warner, 2006).

Within specific areas of intervention, such as school-based programmes, more practical principles, more directly relevant for guiding specific action, have been suggested. A rather successful smoking control programme developed by the Norwegian Cancer Society (Jøsendal *et al.*, 2005) was based on principles like these:

- Emphasize short-term consequences, not only long-term consequences of behaviour
- Provide information not only about possible health consequences, but also social consequences of behaviour (particularly important in interventions targeting young people)
- Mobilize parental support for healthy behaviour
- Involve students actively and avoid lots of passive exposure to communication
- Emphasize the importance of making a deliberate and conscious decision regarding smoking or not smoking

Each of these principles can be related to relevant theory, but also emerge from decades of research on health behaviour change programmes and interventions.

Even single concepts may contribute to sound intervention approaches. A good example is Jack Brehm's concept of psychological reactance. Brehm and associates maintain that human beings tend to react negatively against attempts to limit their freedom to choose among alternative behaviours (Brehm, 1966; Brehm & Brehm, 1981). Messages communicated in health education campaigns often tell people what they should do and what they should not do. Measures such as restrictions on alcohol use, bans on smoking in public places, and mandatory use of seat belts are examples of direct regulations of behaviour. Some behavioural alternatives are eliminated. It is human, and in most contexts healthy, to react against such threats to one's behavioural freedom. When reactance is triggered by health behaviour interventions, however, the outcome is likely to be rather unhealthy. Wiium and associates (2009) have shown that attitudes towards tobacco control measures are more negative among smokers than among non-smokers, and this is particularly the case with 'strong' measures (measures which represent a direct threat to one's freedom to smoke). They have also shown that smokers score higher than non-smokers on a scale for the measurement of general psychological reactance. Health behaviour interventions are likely to be more effective if they do not trigger reactance. Psychological reactance processes are probably the most important mechanisms for producing boomerang effects in health behaviour interventions.

A contextual model for health behaviour, like the one presented in this chapter, has important implications for how to develop adequate and effective intervention programmes. It should be evident that each particular kind of action taken only makes sense if being part of a larger, well orchestrated strategy. A national smoking control strategy only applying health education approaches is most likely going to be ineffective. Restrictive smoking control measures without at least some advocacy through health education campaigns are likely to fail. School-based programmes with no programmes targeting adults will probably lead nowhere. It is the combined efforts of several measures carried out in a well planned sequence that leads to population-level changes in health related behaviours.

The foundation of the Norwegian tobacco control programmes was laid in a document presented as a white paper to the Norwegian Parliament (*Stortinget*) in 1967. The strategy was developed by a cross-disciplinary

group of experts including, among others, one social psychologist, one economist, one marketing expert, and one medical doctor. The strategy included three kinds of measures; (i) health education (in media, through health personnel, in schools *etc.*), (ii) restrictive measures (restrictions on marketing and sales of tobacco products, labelling of tobacco packets with health warnings, high taxes on sales of cigarettes), and (iii) smoking cessation. The first tobacco legislation entered into force in 1975, and has been gradually strengthened over the years. In 2004 a total ban on smoking in bars and restaurants was introduced. Smoking rates have decreased gradually since the early 1970s, when the programme started. Reduced budgets for the governmental tobacco control programme towards the end of the 1980s and in the 1990s were accompanied by less reduction in smoking, and even an increase in smoking among adolescents. After year 2000, however, the decrease in smoking rates has been faster than ever since the programme started.

The success of the programme can hardly be explained by the effectiveness of its individual components. It is rather the particular combination of approaches and their interrelatedness which has contributed to its success. Of particular importance is the interplay between health education and restrictive measures. Restrictive measures were only possible if considerable public support had already been created through health education efforts. The introduction of restrictive measures has led to considerable media interest and coverage of issues related to smoking and health. Restrictions on smoking behaviour have influenced attitudes and social norms related to smoking behaviour, and gradually expanded the physical and psychological non-smoking territory.

When evaluating elements of a comprehensive behaviour change strategy, their impact on behaviour should not be the only criterion applied. A media-based campaign may in principle have no impact on behaviour itself, but if it contributes to mobilizing support for other measures, it may still be considered successful. Criteria for evaluating action must be set up according to the particular role of this action within a more comprehensive programme. Orchestration has not only implications for how programmes are designed and conducted, but also for choice of evaluation criteria and approaches.

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# FROM NATIONAL POLICY TO LOCAL HEALTH PROMOTION PRACTICE

# CHAPTER 4

# National Objectives-Local Practice: Implementation of Health Promotion Policies

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**Abstract**: This chapter addresses system-level analyses by discussing the translation of Norwegian national health promotion policy into municipality-level actions, with a focus on implementation conditions. In the 1990s, several nationwide health promotion programmes were initiated that aimed at integrating health promotion work into the social welfare and health agendas of municipalities. Two of these programmes are analysed in this chapter. The analyses combine two different perspectives: a decision perspective that studies the project outcomes in terms of how the projects were integrated into local government, and a process perspective that focuses on how the participants worked together and on their experiences of working on the projects. The analyses found that projects aimed at integration with local government administration were more successful than projects that aimed at empowering local communities. It seems that a system-level approach is more effective than a community approach. This finding represents a dilemma for health promotion that aims to stimulate community-setting approaches and involve local residents. Consequences of the observed dilemma are discussed.

**Keywords:** Health promotion, policy, municipality practice, social welfare, Norwegian health promotion programmes, decision perspective, process perspective, system level approach, community setting approach, effectiveness, dilemma.

## INTRODUCTION

From the early 1990s, health promotion has been high on the Norwegian political agenda as a strategy to strengthen community-based prevention efforts (Ministry of Social and Health Affairs, 1993; Ministry of Health, 2003). Government studies and recommendations to Parliament have stimulated the establishment and funding of several nationwide health promotion programmes that were designed for implementation at the municipal level. The various programmes that were launched had similarities and differences, but their common objective was to integrate health promotion work into the social welfare and health agendas of the municipalities. This chapter presents two of these programmes, both of which were subjected to qualitative evaluation that aimed to study the processes by which national health promotion initiatives were translated into action at the local level and to discuss conditions for implementation of national programmes to local settings (Fosse, 1998; 2000). First, we focus on the different types of projects and how their content provides different opportunities for implementation and integration. Second, we focus on the extent to which the programmes were implemented according to the objectives formulated by the national government. Third, the processes at the local level are studied for greater in-depth knowledge of local implementation processes.

## THEORETICAL PERSPECTIVES

In the early phases of public policy studies, the translation of policy into practice was seen under normal circumstances as an unproblematic process (Hill, 1997). The work of Pressman and Wildavsky (1973) on

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"Implementation" is considered the starting point for the theoretical and empirical tradition of implementation research in providing the "missing link" between political decision-making and practical policy. Pressman and Wildavsky (1973) focused on the theme of implementation that came to dominate implementation studies. Together with a number of other studies, they showed that policies were seldom implemented according to policymakers' intentions.

This early tradition of studying implementation assumed on a top-down approach (Barrett & Fudge, 1981; Elmore, 1979; Sabatier, 1986; Winter, 1990) that focused mainly on whether the objectives of a policy or programme had been fulfilled. A new bottom-up approach emerged from the 1980s. This perspective focuses on actors and processes rather than on objectives. Kjellberg and Reitan (1995) refer to the two approaches as "decision perspective" and "process perspective", respectively. These terms are used hereafter in this chapter.

The process perspective developed as a reaction to and a critique of the decision perspective. Its proponents claimed that policies were not implemented according to their objectives because centralized policymakers lacked the necessary knowledge of policy implementation settings such as daily life in a school or a community. They argued instead for an approach that would verify the experiences of those responsible for implementing policies and their opportunities to implement the policies. This bottom-up approach would provide "street-level bureaucrats" with an opportunity to give feedback to policymakers on how the policy worked in practice. Although the decision and process perspectives were considered contradictory for a period of time, there are arguments for combining the two perspectives. On the one hand, successful implementation of a policy is important to fulfil the political decisions that legitimate the policy. On the other hand, for policies to work, it is also important that those who are responsible for practical implementation of policy see them as meaningful and useful. The user perspective also adds legitimacy to the policy (Bogason, 1998, 2000; Offerdal, 1992, 2000; Rothstein, 1996, 1998).

Each of the two perspectives may answer a different research question: the decision perspective can provide answers about *what* happened and *how* it happened, while the process perspective provides knowledge of *why* things develop in a certain way and *how* the participants experienced the process. The two perspectives have been combined in the present studies. The decision perspective focus was on the outcome of the projects. It looked at whether they were implemented according to national objectives to integrate them into local government. The process perspective focus was on how the projects developed and how the implementation processes evolved.

## THE PROGRAMMES

In Norway, local governments have a strong and independent position. This implies that the central government rarely dictates what municipalities can do. So-called "soft" governing tools are most commonly used to encourage municipalities to implement national policies. This is often achieved through time-limited projects funded by ear-marked grants. The overall aim of central governments in this case is for the municipality to continue the activities or projects once the project period is completed and preferably to provide ongoing funding. Both programmes studied here received substantial funding for local projects from the national government over a period of time as part of a national strategy to move health promotion higher on local agendas. Both programmes had their basis in health promotion in two particular areas. First, they focused on the community level and the close participation of local actors. Second, they aimed to develop increased intersectoral collaboration. Both were administered by the health services.

Health and Inequality in Finnmark was one of several programmes aimed at improving the health of residents of Norway's northernmost county (County Medical Officer Finnmark, 1993). The programme ran from 1987 to 1997. For several decades, Finnmark had the lowest life expectancy in the country and the highest rates of cancer and cardiovascular diseases. Relatively poor lifestyles and living conditions were also documented

(Elstad, 1982; Thelle, 1993). One strand of the programme was dedicated to the development of health promotion. The present evaluation concerns the health promotion projects in the programme.

*The National Programme for Health Promotion* (*National Programme*) was the first major Norwegian programme aimed at increasing health promotion activities at the municipal level (Directorate of Health, 1989). The programme ran from 1989 to 1994. Norway is divided into 19 counties within which 448 municipalities have responsibility for local health and welfare service provision. The focus of the *National Programme* was on the role of the health services as lead agencies in community-based health promotion. One important criterion for funding was that the projects be based on a multisectoral approach that included co-operation with other municipal sectors outside the health sector and NGOs.

## METHODS

Data from the studies were collected from interviews and document analysis. Eight local projects were included, four from each programme. The inclusion criterion was cross-sectoral collaboration on the project, *i.e.*, involvement in the project of participants from sectors other than the health sector. Interviewees included project leaders and persons participating in or collaborating on the projects, as well as political and administrative leaders. Documents and interviews were used for triangulation of data (Kvale, 1996).

## FINDINGS

Two types of projects could be identified in both programmes. One type was projects aimed at community involvement and participation. The second type was projects aimed mainly at establishing collaboration and eventually integration with local government administration. Four projects of each kind are included in the study. The characteristics of the different project types are illustrated in the following examples.

## COMMUNITY PROJECTS

*Hasvik*, *Finnmark:* A project house was established as a meeting place for the local community with several additional activities including exhibition of local arts and crafts, assistance to the unemployed in completing forms and applying for jobs, and development of self-employment opportunities, particularly for women.

*Askvoll*, *National Programme:* Projects in which local communities defined health-related issues were aimed at strengthening meeting places in the local communities and arranging various types of physical and social activities.

## GOVERNMENT-ORIENTED PROJECTS

*Kautokeino*, *Finnmark:* The reindeer trade involves hard physical work from which accidental injuries frequently arise. Improvement of the physical and social work environments of the reindeer trade was the main objective of the project. Local governments in Norway are responsible for facilitating and establishing local trade and industry. In addition, the health sector is also involved in improving working conditions. The main objective of the project was to involve players in the reindeer trade and for local government to take responsibility for improving the situation.

*Drammen*, *National Programme:* Drammen is a town traditionally burdened with heavy traffic and pollution. The aim of the project was to develop an intersectoral plan for a health-related environment in the town. Work on the intersectoral plan was led by an environmental advisor whose position was established for the project. An additional aim was to make the environmental advisor a permanent position

to be funded by the municipality following completion of the project. In all projects, funding was used to finance a project leader and to support local activities.

The two project types had different aims and ways of working. The main aim of government-oriented projects was to integrate them permanently into local government. However, community projects focused strongly on community involvement. The themes were broad and not typically a part of government responsibility. Nevertheless, the overall aim of the programmes was for the municipalities, regardless of their type, to assume eventual responsibility for all projects.

The main criterion for success from a decision perspective was that the projects continued to be funded by the municipalities once the funding from central government had ceased and the projects had been integrated into the local government organization. Of the eight municipalities studied in the two projects, only one continued such funding. once the project had been completed. From a decision perspective, this would imply that the projects did not succeed.

However, knowledge of the process obtained from the process perspective can modify the results from a sole decision perspective. The integration of the programmes into the municipalities was not a question of either/or, but rather a process that had to be developed at the local level. Through the process perspective, it was possible to identify different forms and levels of implementation. Even though only one project continued to receive funding from the municipality, three projects were integrated into the overall municipal plans. These projects contributed input on the physical and social environments. Further aims were built on the aims and achievements of the projects. Whilst not directly funded, these projects imply that the themes of the project had been integrated into the municipal plan.

Health promotion includes intersectoral collaboration, but the concepts and ideologies of health promotion may be unknown in many communities. The concept of "health" is widely associated with the health sector and its areas of responsibility. This association is strengthened by the fact that the health care sector is administratively responsible for the projects. Successful integration of the projects therefore required time and support. The first step usually involved individual learning by actors about the concept of health promotion and how it involves many sectors of society. The second step involved individuals changing their practices, especially in working across sectors. This involved daily practice that did not change the organizational structure. Collaboration routines were taken up and developed further in the project period and even after completion of the project. In some municipalities, this practice of collaboration led to a change in organizational routines and to the development of structures for increased intersectoral collaboration. This process could facilitate implementation at a later stage.

As mentioned above, government-oriented projects and community-oriented projects were the two types of projects that were identified. A comparison of the characteristics of the two types of projects found some clear differences in terms of implementation. The government-oriented projects showed the strongest integration, while the community-oriented projects achieved a weaker position in local government structures; these results were mostly because of the differences between the two projects.

First, they had different primary *target groups*. In government-oriented projects, the local government was the primary target group, while lay people in the community were the primary target group of the community projects. By implication, leaders of the government-oriented projects had necessary access to local government bureaucrats to present their projects and to develop a common understanding for collaboration, which may have eased the path towards implementation. The community-oriented projects, on the other hand, operated in a landscape populated by lay people and did not have the same easy access to decision-makers.

Second, the two types of projects had different *collaborating partners*. In the government-oriented projects, the most important partners were municipal administrators and professionals, while a wider range of

partners was involved in the community projects. The government-oriented projects were strengthened *vis-à-vis* the local government. Even though the community-oriented projects were also in contact with local government, they operated at a greater distance from the centre of political and budgetary decision-making.

The two different types of projects also had different *objectives*. The aim of the government-oriented projects was to institutionalize the project themes within municipal responsibilities. The objectives included in the community projects were that lay people work with issues relevant to their community. Their aims were empowerment and participation, not through the traditional election channels, but through local activities that benefited their community. A further aim of these projects was to provide funding from the municipality following completion of the project period, but they did not aim to be a part of the local government structures.

The *project themes* were also quite different. Issues of the environment, environmental health services and trade and industry development in municipalities are institutionalized as local government responsibilities in Norway. However, community-oriented themes are not institutionalized in the same way: this field is situated at the interface of the civic and public sectors.

## DISCUSSION AND CONCLUSION

Even though they were both administered by the health services, neither project in the two programmes was a typical health sector project. They focused on all sectors of the community and on structural rather than individual conditions for health. In both programmes, government-oriented projects were better integrated into the municipalities than in the community projects.

The two studies referred to in this chapter have shown that successful implementation can depend on the type and content of the projects. Projects that were designed for integration into local government administration were more successful than projects aimed at empowering local communities. This represents a dilemma in health promotion. In a Norwegian context, most projects are dependent on public funding. In both cases, the municipalities were expected to assume responsibility for projects after the programmes had finished. The findings of these studies indicate that a "bureaucratization" of programmes is the best way of receiving extended funding. However, this would be difficult and not consistent with a health promotion ideal of empowerment and involvement of lay people in the community.

Two main conclusions can be drawn from these studies. Implementation seems to be a process that develops throughout the programme period. Even though the projects were not fully implemented during the project period, they facilitated change and raised awareness of health promotion and intersectoral collaboration that, if sustained over a longer period, would lead to structural change.

Second, these studies have demonstrated that a combination of decision and process perspectives on implementation provides a more comprehensive understanding of implementation processes than either perspective might provide on its own. In a traditional study of top-down effects, the main question would be whether the projects were implemented according to the set targets and objectives. We argue in this chapter that this is often not a question of either/or. The process perspective provides a deeper understanding of factors that influence implementation as well as knowledge of how policy processes evolve and of the factors that may strengthen the implementation of health promotion policies.

These findings are consistent with those from the evaluation of Healthy Cities planning that indicate a cumulative learning process among participants in project networks (Costongs and Springett, 1997). If projects do not automatically result in policy, they can nevertheless facilitate the policy-making process. Political decision-making is often influenced more by the cumulative process of participating in and witnessing the consequences of a series of projects than by the practical outcomes of a project. This is

particularly evident if policy-making is considered as a system of innovation and learning in a web of linked actors continuously exchanging information and skills (Goumans & Springett, 1997).

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# CHAPTER 5

# Relationship Education to Promote Family Health

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**Abstract**: This chapter describes how family welfare is considered a public responsibility in the Scandinavian countries, in contrast to the USA and UK where emphasis is placed upon private provision. The role of the national authorities encompasses two main processes: placing relationships on the political agenda, and funding the development and implementation of various measures. Two main approaches to relationship education are addressed: 1) a more direct approach of identifying risk factors for developing relation problems and conflicts, as well as protective factors strengthening relationship bonds and enhancing the quality of the couple relationship, and 2) a less direct approach of evaluating specific programmes through participant evaluations and various types of experimental designs. The latter is exemplified by the Prevention and Relationship Enhancement Program (PREP) considered the most scientifically rigorous relationship education programme. PREP is based on a cognitive–behavioural theoretical framework and is designed to provide couples with knowledge, communication, and problem-solving skills associated with effective relationship management. The chapter includes a discussion of the theoretical and empirical demarcation between relationship education and couples therapy. It emphasizes that couples seeking help for their relationship difficulties may not benefit from relationship education.

**Keywords:** Family welfare, political agenda, intervention programs, relationship education, couples therapy, risk factors, protective factors, effectiveness, Prevention and Relationship Enhancement Program (PREP), cognitive-behavioural theory, relational functioning.

## INTRODUCTION

Marital breakdown leading to family disintegration is one of the most significant social changes affecting many Western societies in recent decades. In Norway, the number of divorces increased from an average of about 2,000 per year in the early 1960s, to more than 10,000 in recent years. This indicates an increase in the divorce rate from about three per 1,000 to 13 per 1,000 (SSB, 2007) Today, approximately half of all marriages will result in divorce and there is the failure of an even greater proportion of cohabitating relationships.

This development has contributed to a significant growth in research on family-related themes. A crucial task has been to assess psychosocial effects of divorce on adults and children. The literature currently indicates that both groups are exposed to an increased risk of developing psychosocial and health problems (see Amato (2000) for a review). The relative risk is about twice as high among children who experience separation of their parents, compared with children who grow up living with both parents. This difference manifests in school problems, various health-compromising behaviours and psychological symptoms. The effects are commonly evident several years after the divorce, and may continue far into adulthood (see *e.g.*, Hansagi *et al.*, 2000; Nævdal & Thuen, 2004; Weitoft *et al.*, 2003). Adults also face significant health risks, in terms of physical and psychological symptoms, absenteeism, and even suicide (see *e.g.*, Aldous & Ganey, 1999; Eriksen *et al.*, 1999; Hemstrøm, 1996; Thuen, 2000).

A number of educational and supportive measures have been developed and implemented in direct response

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to widespread family breakdown. Commencing in the USA as a response to the increasing divorce rate during the 1960s, dialogues between Christian clergy and couples who were about to marry were instituted. Subsequently, various workshops and programmes comprising more extensive curricula and training elements were developed, mainly within religious organizations. Common to most of these measures was a focus on preparing young couples for marriage. Thus, the programmes were frequently labelled "premarital education". The popularity of these programmes rose in response to these measures. In fact, by the end of the 1990s, between one-third and one-quarter of all couples entering into marriage in the USA, the UK and Australia participated in a form of premarital education measure (Stanley *et al.*, 2001).

However, changing family structures because of increasing rates of divorce and remarriage in most Western societies over recent decades have challenged the relevance of these measures to premarital education. Therefore, they have recently been relabelled as relationship enhancement, or relationship education. In Norway, family structures had changed substantially before such measures became available. Accordingly, educational and supportive measures in the Norwegian context have never been targeted at premarital couples. Instead, they have focused on a wider range of target groups, under the umbrella of "relationship education".

**From Macro to Micro**

Stimulating relationship education is part of public policy in many Western societies (Stahmann, 2000). The strong involvement of national authorities in Norway (Thuen & Lærum, 2005) reflects a unique tradition within Scandinavian countries of regarding family welfare as largely a public responsibility rather than placing emphasis upon private providers, as is often the case in the USA and the UK (Esping-Andersen, 1990; Kamerman & Khan, 1998, 2001).

Relationship education programmes in Norway are largely developed and implemented through partnerships of national authorities and a variety of private initiatives. The role of the national authorities encompasses two main tasks: placing relationships on the political agenda, and funding the development and implementation of various measures.

Since 1994, the Ministry of Children, Equality and Social Inclusion has offered a grant scheme for organizations and local authorities involved in developing and implementing relationship education programmes. Prior to this initiative, the available educational programmes for couples were offered mainly by Christian organizations. The grant scheme resulted in an expansion of organizations and agencies becoming involved in this field. After 10 years, only 40% of applications for support to run relationship education programmes came from Christian organizations (Bergem *et al.*, 2004).

These Christian organizations often have relationship education as a primary focus of their activities. The other organizations that are supported to run relationship education measures fall into two groups. One consists of organizations comprising different patient groups that are not primarily relationship education providers, but still offer such support to their members. The other group consists of local and regional authorities or public family support services.

In addition to the funding received through the grant scheme, national authorities have initiated and are funding two additional national relationship education programmes. These have been developed and are being implemented in co-operation with other public and private agencies and organizations. One of these programmes targets the parents of disabled children, while the other is offered to all parents having their first child. The latter has been implemented in about half of all Norwegian municipalities and will be launched in every municipality over the next few years.

The private/public partnership arrangement seems a successful formula for disseminating relationship education, since it has led to widespread adoption of relationship education throughout Norway in the last

decade. The funding scheme appears to have stimulated educational initiatives and increased access and participation in education programmes (Bergem *et al.*, 2004). In 2002, funding was provided for about 180 relationship education projects with 3,000 participating couples, constituting about 0.3% of all marriages and cohabitations in Norway for that year. In subsequent years, the amount allocated through the scheme has increased.

A large number of agencies and organizations apply for funding through the grant scheme. Many of their initiatives take place within particular local areas, and are intended to be implemented only once or twice. Some organizations involved in relationship education on a more permanent basis offer more or less standardized programmes at a national level. One of these programmes is the Prevention and Relationship Enhancement Program (PREP) developed in the USA (Markman *et al.*, 2001). PREP is research based, and has been evaluated and well documented over the last 20 years. It is considered to be *the* most scientifically solid relationship education programme (Berger & Hannah, 1999). It is based on a cognitive–behavioural theoretical framework and is designed to provide couples with knowledge, communication, and problem-solving skills associated with effective relational functioning. The curriculum includes topics such as: interaction patterns that signify future problems; gender differences, communication challenges and techniques; problem-solving and rules for handling conflicts; mapping out core beliefs and expectations; forgiveness and commitment; how to protect, preserve and enhance fun and friendship; sensuality.

None of the other standardized programmes available in Norway is based on research or has been scientifically evaluated. Instead, they are based on practice and various forms of evaluation involving participants and leaders. However, there is considerable overlap of all these programmes including PREP, in terms of both their content and form. For example, all programmes include risk factors for couple relationships, communication, and conflict solving, and practice of communication and problem-solving skills. Thus, one might suggest that findings from research on PREP could be at least partly generalized to other programmes.

**Primary or Secondary Prevention**

While national and local authorities have actively developed and implemented relationship education in Norway for several years, these initiatives have been partly contingent on an increasing demand for such measures by individual couples. Thus, the widespread idea and practice of relationship education in Norway may be explained as reciprocity between top-down and bottom-up processes.

The authors conducted a national survey of parents who had recently had a child to assess their attitudes towards participating in a relationship education programme (Mortensen & Thuen, 2005). From the findings, 70% of women indicated that they would participate in such a programme, compared with about one-third of men. However, most of the women believed that their male partner would accompany them, if they insisted. Furthermore, there was a strong negative correlation between willingness to participate in a relationship education programme, and the perceived quality of the relationship. This suggests that relationship education appeals to at-risk couples more than couples without relationship problems. These programmes may therefore be filling the role of secondary prevention as an alternative to their original primary prevention objective. A change in perspective from primary to secondary prevention may therefore be needed, particularly in the current context, since Norwegian couples rarely participate in programmes in preparing for marriage. They are much more likely to seek these services after they have commenced living together in circumstances such as having their first child. It is not surprising to learn that under such conditions, couples experiencing problems in their relationship are more interested in learning how to handle relationship stress, compared with couples who are not experiencing problems in their relationship. This new perspective may challenge the concept of relationship education, since couples seeking help for their relationship problems may not actually benefit from relationship education. Rather, we may expect them to derive greater benefit from couples therapy, which is better suited to the individual needs and idiosyncrasies of each partner than relationship education. Thus, theoretically and empirically demarcating between relationship education and couples therapy may seem warranted.

Furthermore, new strategies may need to be developed to ensure that the promotion and preventive function of relationship education does not become an alternative to traditional couples therapy. These strategies should address the content of messages about relationship education disseminated to different target groups, as well as the recruitment strategies to be used. Such strategies should be based on systematic information about the various reasons for seeking relationship education, as well as barriers to access that may be encountered. It would also be an advantage to evaluate if the cultural backgrounds and challenges faced by couples from different groups are being addressed through the content and process of relationship education programmes. Research is also needed to identify the most relevant and effective programmes for different target groups such as high-conflict couples or conflict-free couples. Similarly, one might differentiate programmes on the basis of education level or on any other target group characteristics that may have proved relevant to the utility and efficiency of these programmes.

**Research on Relationship Education**

The education field and its relevant research have historically developed in lock-step. Two main approaches to relationship education have been addressed. The more direct approach identifies risk factors for developing relational problems and conflicts, while the less direct method examines protective factors strengthening relationship bonds and enhancing the quality of the couple relationship (Gottman, 1999). The latter consists of evaluation studies of specific programmes, in terms of participant evaluations and various types of experimental designs.

The literature on participant evaluation is surprisingly scarce. One of the few published studies was carried out with participants using two different versions of PREP adapted to a Norwegian context. A full version (lasting 12 hours) and a shortened version (lasting six hours) were administered with 876 participants. Generally, the study indicated a high level of satisfaction with the programme (Thuen & Lærum, 2005). Among participants who completed the full version of PREP, only 0.5% reported very little satisfaction, and no reports of being not satisfied at all were recorded. A total of 85% of the participants were quite satisfied or very satisfied, and 30% gave the highest possible score on overall satisfaction with the programme. Ratings of the value of content showed that the most practical skill-training sessions such as problem-solving received the highest scores, while more theoretical topics such as core values and beliefs received the lowest scores.

Participants who completed the shortened version of PREP showed a slightly lower mean satisfaction rating (on a scale ranging from 1 to 7: $M = 5.8$ *vs*. $M = 6.3$). Participants who completed the full version of PREP and those completing the shortened version were more satisfied with practical sessions focusing on training in communication skills than the lectures and discussions on more theoretical issues.

The age of participants, their marital status, if they were cohabiting or dating, or the time they had been in their relationship as a couple were not related to overall satisfaction with the programme in both the full and short versions. Women were somewhat more satisfied than men in the full version, but there were no gender differences in satisfaction with the short version.

Experimental research on relationship education programmes is much more common, although most has been carried out with USA samples. Summaries indicate that the effect of such measures varies from moderate to strong (Carroll & Doherty, 2003; Christensen & Heavey, 1999; Giblin *et al.*, 1985; Guerney & Maxson, 1990; Hahlweg & Markman, 1988; Sayers *et al.*, 1998). Three reports are of meta-analyses, comparing intervention groups with control groups. The largest of these (Giblin *et al.*, 1985) included as many as 85 single studies, whereas Hahlweg and Markman (1988) and Carroll and Doherty (2003) are based on seven and 13 studies, respectively. The average effects (Cohen's *d*) in the three meta-studies were 0.44, 0.79 and 0.80, respectively. Studies including follow-up investigations normally find that the effects gradually diminish over time. Thus, Carroll and Doherty (2003) estimated an average effect of 0.96 at post-

test, whereas the effect decreased to 0.77 in a follow-up between six and 18 months later, and further to 0.47 after three years. Relatively few studies have measured any long-term effects of programmes on the quality or stability of couple relationships, and limited information is therefore available on any lasting effects. The most promising findings are from Hahlweg *et al.* (1998) who reported a divorce rate among participants in the intervention group of 9.4%, compared with 21.9% among couples in the control group after three years.

Other studies have found mixed results (Baucom, 2006. A study by van Widenfeld *et al.* (1996) using a Dutch version of PREP found negative effects. A follow-up after 20 months showed that separations had occurred in 13% of PREP participants and 7% of couples in the control group. However, several methodological limitations, such as a systematic difference between the groups, might account for these findings. It should also be noted that the Hahlweg study had some serious methodological shortcomings, particularly in terms of self-selection into intervention or control groups, which may explain the very promising results. Thus, it is reasonable to conclude that there is a need for more research on relationship education programmes, and particularly on their long-term effects. Furthermore, longitudinal designs in natural settings should be carried out in order to complement existing research (Berger & DeMaria, 1999).

## CONCLUSION

In recent decades, the couple relationship has increasingly been recognized as an important target for health promotion efforts. The relevant research literature also suggests that relationship education is a promising avenue for enhancing the quality of couple relationships and for preventing relationship problems from arising. However, a number of issues stemming from the widespread use of these measures remain to be addressed. First, greater theoretical differentiation between preventive and remedial interventions is needed, as well as empirical knowledge of which target groups benefit most from which type of intervention. An advantageous extension of this activity could lie in tailoring programmes according to theoretical and empirical evidence to fit the needs of specific populations. The Norwegian campaign “Good couple relationship” “Godt samliv” aiming at first-time parents may be considered an example of such a programme, even though its empirical basis is somewhat limited. Second, relationship education measures are generally under-utilized by underprivileged couples. This is particularly disturbing in light of the fact that many of these couples are at high risk for relationship distress. In fact, a low level of education is a major risk factor for divorce. This represents a considerable challenge in relation to how and through which channels relationship education measures should be advertised and disseminated. Third, there are large methodological issues involved in research on these measures. Fortunately, because of the widespread use of relationship education and the strong involvement of the authorities, Norway appears to be in a unique position in research within this field. The grant scheme in particular might be utilized in relation to research, by setting as a condition for receiving a grant that the organization be willing to participate in research activities. Moreover, the fact that just a few agencies are responsible for a large number of relationship education measures, and that they are under close surveillance by the authorities involved, increases the feasibility for co-ordination and collaboration across various programmes. This may be of great value if any natural experiments or comparison studies are to be carried out. Thus, relationship education in Norway may be well positioned to add valuable knowledge to the further development of this promising health promotion field.

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# SETTINGS AND PROCESSES IN HEALTH PROMOTION WITH YOUTH

# CHAPTER 6

# School as a Resource or Risk to Students' Subjective Health and Well-Being

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**Abstract**: This chapter discusses the relationship between students' experiences in school and their health and life satisfaction, with particular emphasis on how social processes within the school setting play a significant role in this relationship. Building on data from a large international survey, the chapter aims to demonstrate how students' overall life satisfaction is associated with health promotion processes in schools. By utilizing motivation-based theories such as self-determination theory and goal achievement theory, attention is focused on explaining the relevance to student life satisfaction of processes that stimulate: 1) student empowerment through autonomy and participation; 2) their relatedness to peers and teachers; and 3) learning processes through which students experience mastery. Further examples of how such processes can be stimulated are provided from the Norwegian and the European Network of Health Promoting Schools. This chapter demonstrates that a school environment that does not stimulate health promotion processes is more likely to be perceived as stressful by the students. Exploring the school environment from a stress perspective verifies how high demands and student role strain in combination with low empowerment may result in higher levels of subjective health complaints and ill health.

**Keywords:** School setting, school satisfaction, life satisfaction, subjective health complaints, social processes, basic needs, autonomy, relatedness, competence, Health-behaviour in School-aged children study (HBSC), health promoting schools, school-related stress.

## SCHOOL INFLUENCES ON ADOLESCENT HEALTH, HEALTH BEHAVIOURS AND WELL-BEING

Adolescents' life experiences are likely to influence both their current and future subjective health and well-being (Suldo *et al.*, 2006). Young people spend more than one-third of their waking hours in school, and experiences during school are thus likely to have a fundamental impact on their health and well-being. The impact of school experiences on students' mental health and problem behaviour was first illustrated by Rutter *et al.* (1979) in their famous book *Fifteen Thousand Hours: Secondary Schools and their Effects on Children*. Since this landmark publication, the relationships between schooling and health-related outcomes have become subject to inquiry into the processes underlying these outcomes.

In this chapter, we outline our own programme of research in this field. This research has focused on how psychosocial factors in school affect the well-being, subjective health, health behaviours and global well-being of school-aged children. The presentation builds on two major research projects. The first is "The Health Behaviour in School-Aged Children: A WHO Collaborative Cross-National Study" (HBSC; www.hbsc.org), which was established in 1983 involving England, Finland and Norway; in 2011 it involves 43 countries (Currie *et al.*, 2009). The main aim of the study is to collect data on adolescent health perceptions, health behaviours and well-being, and their correlates in the family, at leisure and at school. Every four years, data are collected from a nationally representative sample of children aged 11, 13 and 15

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years following a standardized protocol for international comparison of data (Roberts *et al.*, 2009).

The second study includes evaluation of the Norwegian component of the former European Network of Health Promoting Schools currently Schools for Health in Europe (the SHE network; www.schoolsforhealth.eu). During the 1990s, almost 40 European countries participated in this international network that Norway joined in 1993. The ministries of health and education appointed the Research Centre for Health Promotion at the University of Bergen as a national resource centre to spearhead the development and evaluation of the Norwegian network. Today, the network includes almost all countries in Europe. In each participating country, a minimum of 10 schools is selected to work on health promotion projects for a minimum period of three years.

Our research perspective regards school as the work environment of adolescents (Samdal *et al.*, 1998). Just as the psychosocial work environment can affect adult health and well-being, the psychosocial school environment can influence adolescent health and well-being. However, the processes that prevent distress may not be the same processes that promote well-being (Ursin & Eriksen, 2004; Wilkinson & Walford, 1998; Wilkinson *et al.*, 2000). Therefore, this chapter will focus on psychosocial perspectives of school as both a resource and risk to students' subjective health and well-being. Positive experiences in the school environment should constitute a resource for academic achievement, school well-being and global subjective well-being among students. The underlying mechanisms for the resource perspective can be understood as motivations to meet basic human needs and attain goals such as relatedness, autonomy, and competence (Baumeister & Leary, 1995; Csikszentmihalyi & Rathunde, 1992; Deci & Ryan, 2000). Negative perceptions seem to represent a risk to positive experiences, and appear instead to contribute to stress and health-compromising behaviours and perceptions. The mechanisms involved in the risk perspective may be seen as passive failure to meet basic human needs (Deci & Ryan, 2000). Additionally, mechanisms that activate processes causing stress and ill health seem to be initiated (Ursin & Eriksen, 2004). A resource and a risk perspective on the relationship between adolescents' school experiences and their health and well-being will be further discussed below and illustrated by findings from our research programme.

## A RESOURCE PERSPECTIVE ON STUDENTS' PSYCHOSOCIAL SCHOOL ENVIRONMENT

The school environment is an important setting for health promotion and other influences on children. A supportive school environment may promote students' enjoyment and satisfaction with school. From a health promotion perspective, this is particularly important as school well-being may be considered a domain-specific well-being that also contributes to global well-being. Thus, stimulating experiences in school may facilitate a general positive process of growth and development for school-aged children and adolescents (Baker *et al.*, 2003).

Schools do have competing priorities, as their main objective is to promote academic learning (Green & Kreuter, 2005; Samdal *et al.*, 1998). However, from an educational perspective, well-being in school life and in life generally is seen as an important prerequisite for learning and academic achievement in school. Happy, contented students concentrate on their learning tasks better than students who are dissatisfied with school and their own life (Huebner & Gilman, 2004; Huebner *et al.*, 2004; Roeser *et al.*, 2000). Similarly, academic coping may stimulate adolescents' self-esteem and sense of mastery, which in turn may contribute to both school well-being and global well-being (Akey, 2006; Mortimore, 1998). Furthermore, within the broader scope of human development, well-being both in school and the broader world are essential aims in themselves (Diener & Fujita, 1995). Thus, promoting students' well-being in school, and thereby global well-being, could be a common vehicle for both educators and health promoters.

## SATISFACTION OF BASIC NEEDS IN SCHOOL MAY PROMOTE YOUNG PEOPLE'S WELL-BEING IN SCHOOL AND IN LIFE IN GENERAL

According to self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2000; Ryan, 1992), humans aim at experiencing a sense of choice in initiating and regulating their own actions. Self-motivation and self-regulation are primarily based on the satisfaction of three basic psychological needs: 1) autonomy (a person's striving to have a voice or be in control of their own behaviour); 2) relatedness (a person's striving to relate to others and feel socially integrated); and 3) competence (a person's striving to feel skilful, to master tasks and control outcomes). Meeting these basic human needs of autonomy, relatedness and competence in school may thus constitute important precursory goals to well-being in both school and in life in general (Baker *et al.*, 2003). Below, the relevance of addressing students' needs for autonomy, relatedness and competence and how they may be stimulated in school will be analysed using data from the ongoing international WHO HBSC survey (Roberts *et al.*, 2009), collected in various surveys over the last 20 years from students aged 11, 13 and 15 years.

As noted above, school well-being is strongly correlated with students' global well-being. HBSC findings suggest that the most important correlates of students' satisfaction with school are high levels of support from fellow students, teachers and parents, feeling safe, and being treated fairly (Danielsen *et al.*, 2009; Samdal *et al.*, 1998). Feeling good at school was also one of the most important correlates for self-reported academic achievement, along with high levels of support from fellow students, teachers and parents, and being sufficiently challenged academically (Danielsen *et al.*, 2009; Samdal *et al.*, 1999).

### RELATEDNESS

Findings from the HBSC study also indicated that high levels of social support from fellow students and parents were most strongly correlated with school well-being and general well-being (Danielsen *et al.*, 2009; Freeman *et al.*, 2009; Samdal, 1998; Samdal *et al.*, 2004). Support from teachers also had a substantial indirect effect on school well-being (Danielsen *et al.*, 2009). Fellow students may provide opportunities for social interaction, emotional support and adequate help in academic and social situations. Perceived high student support suggests that students feel highly integrated with and accepted by their fellow students. Building on self-determination theory, these experiences of integration and enjoyment are likely to meet adolescents' needs for relatedness (Deci & Ryan, 2000). High support from teachers may stimulate students' interest and well-being in school when they perceive that the teachers care about them (Hamre & Pianta, 2006; Reddy *et al.*, 2003). Moreover, high levels of social support can be perceived as a back-up system that encourages students to face challenges and difficult situations. The support provided may also promote mastery, which again may boost both the student's well-being in school and their global well-being through the perceived satisfaction and enjoyment of achieving new goals and developing new skills (Baumeister & Leary, 1995; Deci & Ryan, 2000).

The HBSC findings suggest that high-level support from fellow students is the one facet of the school environment most strongly related to the subjective well-being of students. Children and adolescents are in a developmental stage where relationships with friends become increasingly important. School may therefore provide an important framework for these social relations by providing a daily meeting place. Findings from the evaluation of the Norwegian Network of Health Promoting Schools illustrate how relatedness can be supported in school. A common approach used by the majority of the schools was to organize health promotion activities across grades to provide the students with new and increased opportunities to relate to other students and teachers (Samdal *et al.*, 2010; Wold & Samdal, 1999). An example of a structure that many of the Norwegian health-promoting schools used to support relatedness through opportunities of interaction was to set aside one hour during the schoolday when no curricular tasks took place. During this time, the students could use the school building and the outdoor area to interact and enjoy one another's company through physical activity, listening to music, talking, dancing and playing

cards. More formal structures were developed to improve opportunities for relatedness. For example, "buddy" systems both within and between classes were implemented to increase students' sense of responsibility for each other and to ensure that each student had someone to turn to when in need of help, care and companionship.

## AUTONOMY

Data from the HBSC study confirmed that autonomy was consistently related to both students' school well-being and global well-being, although not to the same extent as student support (Samdal, 1998; Samdal *et al.*, 2004). Moreover, data from the same study indicated that pedagogical care and support of autonomy were substantially related to students' academic performance at the class level (Danielsen *et al.*, 2010). In school, support for student autonomy is related to the extent to which students are allowed to make decisions in relation to school regulations and daily activities. Students who perceive that they have high autonomy are also likely to be acknowledged as important contributors to the daily life of the school. Our HBSC findings confirm similar research that suggests that this recognition may increase their interest in and adaptation to school (Mortimore, 1998; Rutter *et al.*, 1979; Samdal, 1998).

Students' increased interest in school may consequently stimulate their intrinsic self-regulation in school, which in turn may promote both students' school well-being and their global well-being (Deci & Ryan, 2000). One element in this process is the opportunity for students to be proactive and involved in creating and defining their working conditions. Another element is the responsibility given to the students for their own learning, particularly through problem-based learning that challenges them to be creative and independent in their search for knowledge. Participatory and autonomous processes may lead students to feel that schooling is of intrinsic interest to them and is most likely to have a positive influence on both their well-being in school and global well-being. Moreover, such processes also include elements of self-determination that have been found to be an important source of well-being (Bach & Rioux, 1996; Reeve, 2002; Ryan, 1992). Teachers play a particularly important role in providing processes in school that support autonomy (Reeve, 2006; Torsheim & Samdal, 2004).

In the Norwegian Network of Health Promoting Schools, all the successful schools used a whole school approach (Samdal *et al.*, 2010; Samdal & Rowling, 2011; Wold & Samdal, 1999). This approach included active involvement of students and staff in both developing and implementing activities while emphasizing collaboration across disciplines and grades. The whole school approach provided opportunities for teachers and students to influence activities and may thus be seen as supporting the basic need for autonomy. More specifically, a selected number of students were invited to be part of the project group at school and all classes were systematically invited to discuss their thoughts on important activities to initiate the promotion of health and satisfaction at school. Findings from the evaluation study showed that students who experienced teachers facilitating their involvement in the project reported higher levels of school satisfaction (Torsheim & Samdal, 2004). The students who actively took part in the planning and/or implementation of activities (*e.g.*, organizing sports activities for fellow students during the break) also experienced the development and application of managerial as well as general skills in participating in the project, which may be seen to support their need for competence. Teachers thus play a key role in facilitating autonomy-supportive processes in school (Reeve, 2006; Torsheim & Samdal, 2004).

## COMPETENCE

The HBSC study does not use a direct measure of students' perceived satisfaction of the need for competence. Instead, we used a more indirect measure of capturing perceptions of demands exceeding their capabilities, that is, if students felt that teachers and their parents expected too much of them at school. HBSC findings indicated that students who perceived having too many demands placed on them reported lower school well-being and global well-being (Samdal, 1998; Samdal *et al.*, 1998). The need for

competence and personal growth can be considered as met through providing adequate challenges that lead students towards mastery and experiences of intrinsic interest in the work itself. When the expectations exceed the students' capabilities, they experience the dissatisfaction of not having the resources to meet the challenges of school. This experience may then again negatively influence their self-esteem as well as their satisfaction with both school and life in general.

Teachers play a vital role in making clear the demands on students as well as how they are expected to fulfil them. Thus, the way in which the expectations are presented, that is, the extent to which they match the student's capabilities and the support available in the work process, are crucial to the influence of perceived demands on students' school well-being and global well-being. When students experience having the capabilities and competence to cope with the perceived demands, they feel freer to deal with the content of the task, and are therefore more likely to experience the work as intrinsically interesting (Mortimore, 1998). According to self-determination theory (Deci & Ryan, 2000), such intrinsic interest in the task is a requirement for satisfaction of the need for competence and its positive influence on both school well-being and global well-being.

## A STRESS PERSPECTIVE ON STUDENTS' PSYCHOSOCIAL SCHOOL ENVIRONMENT

While we frequently think of schooling along the learning and development axes, schooling may also be a source of strain, affecting a wide array of non-academic outcomes, including mental health and well-being (Fenzel, 2000; Natvig *et al.*, 1999; Roeser *et al.*, 1998). In the Norwegian HBSC data, 28% of the 15-year-old boys and 38% of the 15-year-old girls perceived school-work to be stressful (Torsheim *et al.*, 2004). For the students participating in the Norwegian Network of Health Promoting Schools, we found evidence that health complaints may be seen as both a consequence and cause of student role strain and social support (Torsheim *et al.*, 2003). Health complaints measured at baseline predicted change to a higher level of stress and a lower level of support six months later. The magnitude of effects was, however, stronger in the other direction, with stress and support predicting change in subsequent levels of health complaints. These results are consistent with demand–control theory and a transactional and dynamic model of stress, support and distress. They indicate the need to view school-related stress, support and distress as mutually dependent factors, as will be further elaborated below.

Schools that follow mainstream pedagogical principles have historically allowed a low degree of student control and autonomy over the curriculum, homework and choice of working methods (Epstein, 1981). In the terminology of demand–control theory (Karasek & Theorell, 1990), a large group of students engage in a high-strain job, characterized by high demands and relatively little opportunity for exerting control over them. Karasek and Theorell (1990) found that high strain with few opportunities to exert control over the conditions that regulate the exposure to such high strains is related to higher levels of stress and lower levels of well-being, as also reported from the HBSC study above.

Students have a role to perform in school in terms of expectations to meet and tasks to be conducted. Role strain might therefore arise from the situation of high demand and low control presented above. Role strain may be explained by the concept of role overload (Pearlin, 1983). According to Pearlin (1983), the concept of role strain refers to "the hardships, challenges and conflicts or other problems that people come to experience as they engage in normal social roles" (p. 8). Role overload refers to the "too much" situation in which task demands exceed available student resources. The demands of producing a steady flow of assignments and homework may, depending on the motivational and cognitive capacities of the student, lead to student role overload. A second related kind of role strain originates from social conflicts with the role set (Pearlin, 1983). Social conflict with the role set might develop from not being able to satisfy the expectations of peers, parents and teachers (Hurrelmann *et al.*, 1988). Although high expectations are generally associated with favourable academic outcomes (Crystal *et al.*, 1994), such expectations may also be a source of conflict (Hurrelmann *et al.*, 1988).

The transactional theory of stress (Lazarus & Folkman, 1984) offers a psychological account of the processes in student role strain. According to this theory, an important dimension of role overload is that the task demands exceed or tax the resources of the individual students, and is appraised as a threat or a challenge by the student in a process described as primary appraisal (Lazarus & Folkman, 1984). Whether students appraise school demands as a threat or a challenge may depend on both personal and situational factors. The appraisal of high school demands may depend on a previous history of exposure to such demands, and the importance these demands have for the students' future well-being. Such a perspective focuses on the overall perceived meaning of the demands. This perspective parallels self-determination theory where satisfaction of the need for competence requires students to have a genuine interest in and intrinsic motivation to perform the school tasks (Deci & Ryan, 2000). The stress of academic demands is closely related to the value placed on academic success in societies. In a Norwegian context, a consequence of failure to deal with school-related demands may be social marginalization, failure to qualify for higher education, and the sequelae of academic and social problems.

The emphasis of the demand–control model on decision control (autonomy) for the outcome (stress or learning) of high work-load is not necessarily in competition with the resource perspective presented in self-determination theory. Rather, it may be seen to parallel the importance of self-regulation as presented by Deci and Ryan (2000). That is, the more the individual can influence his/her task, the more likely he/she is to experience competence and enjoyment, and thereby learning and global well-being. If satisfying basic needs remains unrealized, the outcome may be ill-being (Deci & Ryan, 2000). The non-satisfaction of needs may be seen as part of a risk perspective in that it does not stimulate positive development in adolescents. However, the risk perspective does include a more specific focus on stress perceptions in which adolescents feel they are not able to cope, which activates strain perceptions and thereby perceptions of ill health (Ryan & Deci, 2000; Ursin & Eriksen, 2004), as addressed by the role overload perspective above (Pearlin, 1983). In their Cognitive Activation Theory of Stress, Ursin and Eriksen (2004) highlight that stress perceptions may also initiate processes of learning if the individual perceives that they are coping through positive outcome expectancies of the activated stress perception. Under such circumstances, the individual perceives himself/herself as having adequate competencies to deal with the stress alarm. From a resource perspective, this may be considered to stimulate the satisfaction of basic needs. Thus, the resource and risk perspectives may be seen to be partly overlapping in that they represent two ends of a continuum. However, they are mostly complementary and different perspectives that contribute to our understanding of how students' experiences in school relate to their health and well-being.

## MULTILEVEL PERSPECTIVES ON SCHOOL-RELATED STRESS AND SATISFACTION OF NEEDS

Our programme of research suggests that a multilevel perspective might be particularly relevant in studies of schooling and perceived health and well-being outcomes. This seems natural because processes that may explain students' experiences of their health and well-being involve factors at multiple levels, including the individual, classroom and school levels. Stress and coping should be viewed as a multilevel phenomenon in which individual and contextual factors interact to affect individual health and well-being (Bliese & Jex, 1999).

A multilevel perspective expands the strong individual focus in stress research. Most psychosocial theories of stress emphasize individual factors in the production of role strain. For example, according to the Transactional Model of Stress, primary and secondary appraisals act as the dominant processes linking stress and coping to health. In a study of Norwegian school-aged children participating in the HBSC study described earlier, we expanded this perspective in 1997 by also taking into account the relative contribution of shared classroom environment in student role strain. In this study, we found a significant "classroom" component in students' perceptions of role strain and social support (Torsheim & Wold, 2001). The fact that individual perceptions of role demands and resources varied significantly across school classes

suggests that contextual factors contribute strongly to appraisal processes. While previous research has typically focused on individual sources of variance in student role strain (Fenzel, 1989), the fact that individual perceptions of role demands and resources differed between classrooms strongly indicates that organizational factors contribute to the production of student role strain and available coping resources.

A second example of multilevel processes is cross-level interaction. Buffering effects have typically been studied as an individual level phenomenon, where individual perceptions of support moderate the impact of individual perceived stress (Cohen & Wills, 1985). In a study of eighth grade students, stress-buffering effects were found for aggregate classmate support, but not for individual classmate support (Torsheim & Wold, 2001). One interpretation is that a supportive class climate is particularly beneficial for students at high risk (students with high role overload), but less beneficial for low-risk students (students with low role overload). One extremely valuable implication of this from a health promotion perspective is that interventions targeting the social climate of the classroom should be effective for the students who are most in need of such interventions.

Similarly, research on the satisfaction of basic needs in schools indicates the relevance of studying the influences of individual factors related to motivation *versus* factors related to a classroom climate that supports experiences of autonomy, relatedness and competence (Deci & Ryan, 2000; Reeve, 2006). In our research programme, we have identified differences between school classes in terms of the need for a supportive climate, suggesting that some classes provide more favourable environments for the development of academic initiative than do others (Danielsen *et al.*, 2010).

## IMPLEMENTING HEALTH PROMOTION IN SCHOOLS

Through its overall aims of promoting adolescent health and well-being, the Health Promoting School initiative provides a basis for developing a school environment that is supportive of students' basic needs. This may be seen in the emphasis given to stimulate: 1) relatedness, through promoting an inclusive social environment; 2) autonomy, through student involvement; and 3) competence, through inviting students to try new activities that emphasize the importance of their contribution. We have presented above some examples of concrete activities undertaken by the schools in the Norwegian Network of Health Promoting Schools in their efforts to increase students' health and well-being in school by satisfying these three basic needs. In this section, emphasis will be given to *how* schools can work to implement such activities to meet the aim of satisfying students' basic needs.

The health-promoting school initiative introduced a shift from interventions aiming at changing individual behaviour, to a socioecological approach that emphasizes the interplay of organizations and individuals (Deschesnes *et al.*, 2010; McLeroy *et al.*, 1988).

In our evaluation of the Norwegian project, we therefore took a strong interest in understanding how schools could use organizational change to achieve changes in teachers' and students' practices and behaviours (Green & Kreuter, 1991, 2005). Thus, we studied why school-level implementation actions could explain why some schools were able to achieve health-promoting change in their daily practice, while others could not (Rowling & Samdal, 2011; Samdal *et al.*, 2010; Samdal & Rowling, 2011; Wold & Samdal, 1999). The factors described below are believed to be among the most important for a successful implementation and change process.

The first implementation factor observed was the emphasis given to the planning of the project both nationally and at school level. In the Norwegian Network of Health Promoting Schools, 10 pilot schools were selected based on responses to an invitation to apply from the Ministry of Education to all primary and secondary schools in Norway. The invitation to all schools aimed to place health promotion in schools on the national education agenda. Thus, there was a strong national top-down initiative aimed at including a

specific and systematic emphasis on health promotion in local school policies. The pilot schools were introduced to Green and Kreuter's (1991, 2005) health promotion planning model (precede–proceed) by which they were guided through a systematic planning process. Students, staff, the school health services, parents and other partners in the school community were invited to participate in identifying objectives and activities to be implemented. Further, the schools were encouraged to anchor their health-promoting school initiative in their policy plans and to spend time on alignment processes among staff and students. For more details on the steps in the process of developing as well as implementing the activities, see Samdal (2008).

In the planning process, the research findings from the Norwegian and international HBSC data were systematically used to guide the schools in identifying priorities in the development of practices in school that would promote students' satisfaction with school, as well as improving their health and health behaviours (Wold & Samdal, 1999). Further, the HBSC findings were useful for interpreting the possible impact of ideas and initiatives taken by the schools to develop actions and strategies. Moreover, the HBSC survey tool was used as both baseline instrument to identify needs for development and change at the individual schools and as a follow-up instrument for evaluating change. Students at the participating schools received questionnaires twice in every school-year. A similar survey instrument was also developed to capture teachers' perceptions of the school environment and their reported health and health behaviours. The teachers were surveyed once a year.

Six of the 10 Norwegian pilot schools succeeded in their efforts in that they were able to achieve change in teacher practices and/or student perceptions of their psychosocial environment, their satisfaction with school, or reported health behaviours and well-being. Examples of reported changes were increased levels of physical activity, reduced levels of bullying and increased school well-being. The teachers also reported that they perceived changes in the learning climate in terms of fewer disciplinary problems and better student concentration as a consequence of their own investment in health promotion activities (Viig & Wold, 2005). Although the six successful schools had chosen very different objectives and topic areas in their health promotion efforts, they still shared common characteristics in the way they worked in the development and implementation of activities (Samdal *et al.*, 2010).

Following the planning phase, the successful schools all used the whole school approach to actively involve all relevant stakeholders including students, staff, school health services and local support services. A review of the whole school approach by Lister-Sharp *et al.* (1999) found it to be a core factor in achieving effective health promotion in schools. Two other issues were identified as highly important in all of the successful schools. First, they had all included the health promotion initiative in their policy plans. Second, the school leadership was very supportive and highly active in securing alignment processes through focus on visions and aims as well as in allocating time and resources to the activities. This type of leadership behaviour that combines a focus on leadership (*e.g.*, vision focus) and management (*e.g.*, resource allocation) has also been found by others to be important for successful implementation in other school programmes (Daft, 1999; Durlak & DuPre, 2008; Larsen & Samdal, 2008). Other important implementation factors identified were related to the schools' awareness of building on previous practice and competence to ensure familiarity and responsiveness to needs for change, collaboration with other schools and partners, and stimulation of teachers' motivation and participation (Samdal *et al.,* 2010). More details on implementation factors identified in the Norwegian Network of Health Promoting Schools can be found elsewhere (Rowling & Samdal, 2011; Samdal *et al.*, 2010; Samdal & Rowling, 2011; Wold & Samdal, 1999).

Tjomsland *et al.* (2009a, 2009b, 2010) and Viig and Wold (2005) have all identified similar characteristics to those described above. Strong leadership, involvement in decision-making, anchoring in policy documents and collaboration with other schools were important factors in motivating the Norwegian teachers to participate in the development and implementation of health-promoting school activities. Positive experiences of previous projects relevant to health-promoting schools and teachers' expectations of positive outcomes were also found to be important motivations for teachers to participate in their school

health-promoting project (Tjomsland *et al.*, 2009a, 2010). Long-term sustainability (15 years) of health promotion in the Norwegian Network of Health Promoting Schools was also found to be associated with motivated teachers, systematically applied leadership, anchoring in policy documents and collaboration with other schools (Tjomsland *et al.*, 2009b).

Within the health-promoting school approach there has been limited focus on the articulation of policies and practices for implementation, leaving operationalization of how to implement actions successfully to the practitioners, whose practice-based knowledge varies (Deschesnes *et al.*, 2003; Rowling & Samdal, 2011; Samdal & Rowling, 2011). Thus, the findings from the Norwegian Network of Health Promoting Schools contribute important information and guidance on *how* schools may work to develop a basic need supportive school environment to promote adolescent health and well-being both in school and in general.

## CONCLUSION

For two decades, the aim of our research programme has been to explore and better understand school-related resource and risk factors for adolescent health and well-being. Our findings indicate that the most important dimensions to address in schools to increase students' well-being and reduce their subjective health complaints are similar across nations. Specifically, these are to improve support from fellow students and teachers in school and school-related support from parents, thereby highlighting the importance of social processes in the promotion of adolescent well-being in school and in life in general. Additionally, the findings pinpoint the relevance of students meeting adequate expectations and perceiving they have influence on school-related issues. These three components match very well the concepts of satisfying needs of relatedness, competence and autonomy in self-determination theory (Deci & Ryan, 2000) and the need for balance between demands and control as outlined by Karasek and Theorell (1990).

Consistent cross-national findings lend support to the idea of developing interventions through international networks such as the Australian Network of Health Promoting Schools and Schools for Health in Europe. Our findings further demonstrate the importance of applying multilevel approaches, including both classroom and school-level indicators when studying factors of relevance to the satisfaction of students' needs and their health and well-being in school. In addition to psychosocial climate dimensions, the perceived quality of indoor and outdoor physical environments is relevant to multilevel studies when researching satisfaction of needs. Moreover, a number of studies indicate the relevance of addressing the impact of school-level policies on health promotion on individual-level perceptions and behaviours.

From this perspective, it will be interesting to include meso- and macro-level influences in utilizing the full scope of the socioecological model. Local environments and national educational and health promotion policies can be included when exploring these interactions. In this way, we can explain how differences in teacher and student behaviours in the classroom, as well as differences in school health-promoting policies influence individual-level perceptions of basic need satisfaction and outcomes related to health and well-being. A further interest is to capitalize on the international HBSC study to explore national and cultural differences in educational and health promotion policies, as well as proportions of Gross Domestic Product spent on education and health promotion in schools. With this information at hand, it should be possible to target more effectively interventions at classroom and school levels, and national level, to promote adolescent health and well-being.

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# CHAPTER 7

# Depressive Symptoms During Adolescence: Gender Differences and the Role of Body Image

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**Abstract**: This chapter reviews the prevalence of depressive tendencies among adolescents, discusses individual and social risk factors and concludes by making a number of recommendations on how to promote positive mental health among adolescents. Significant individual processes related to pubertal development, vulnerability (in particular low self-esteem and negative body image) and identity confusion are discussed as significant individual processes that impact on the experience of depressive tendencies among adolescents. Significant social processes are also identified, including social support from parents, peers and others, type of relationship with parents, quality of friendships and bullying. The chapter discusses how stressful events may cause depression depending on the way the young person copes with the stress, as well the extent to which he or she is vulnerable and receives adequate social support. Girls are more at risk for developing depressive tendencies, and possible reasons for the gender differences are presented. This chapter discusses health promotion among adolescents in terms of increasing their control and improving how they cope with events that may compromise their life satisfaction and vitality. The main focus is on how to increase the possibilities for young people to meet successfully life challenges by improving their social competence, self-esteem and coping abilities, and strengthening social networks. A number of recommendations on how to promote mental health and prevent depressive tendencies among adolescents are suggested. These include programmes and interventions targeting the family, school, health services and public programmes at different societal levels.

**Keywords:** Depressive tendencies, depressed mood, mental health, body image, adolescents, risk factors, coping, gender, social network, health promotion initiatives, settings, ecological approach.

## INTRODUCTION

This chapter concerns psychosocial influences on depressive symptoms during adolescence. It demonstrates how macro-level representations of an ideal body shape may cause dissatisfaction with personal body image that leads to depressed mood among adolescents. The most relevant health promotion strategies are creating supportive environments, developing personal skills and reorienting health services.

Depressive symptoms in adolescence have been a relatively neglected area of investigation. However, in the last two to three decades, depressive symptoms have become increasingly acknowledged among adolescents and young adults. Depressive symptoms and depressed mood appear to represent significant distress and impairment in the functioning of young people. WHO has recognized depression and depressive symptoms as a major public health concern and a target for health promotion interventions (WHO, 2001). The most recent Norwegian Government White Paper on Healthy Public Policy (2002-2003) underlines the importance of implementing interventions in school, work and neighbourhood environments in which young people live and interact. Accordingly, we have seen an increased awareness and funding of mental health projects from both government and non-governmental organizations.

Despite increased acknowledgement of the importance of mental health, depressive symptoms often remain

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undetected by mental health services and in the social environment of adolescents (Hytten *et al.*, 1995; Offer & Schanert-Reichel, 1992). Most adolescents, if they do recognize that they are experiencing depressive symptoms, do not tell anyone and do not present themselves for treatment or counselling (Gilbert, 1992). The reason for this can be demonstrated from a comment generated in a focus group discussion: "You are not supposed to have mental problems, that's just the way it is." (Solvang & Kilsti, 2000). Less than 50% of young people reporting high levels of depressive symptoms received any treatment before the age of 18 (Kessler *et al.*, 2001).

We know today that the group of adolescents who have elevated scores on measures of depressive symptoms, but who do not meet the criteria for a diagnosis of depression, manifest almost as much psychosocial dysfunction as those who are diagnosed as depressed (Gotlib *et al.*, 1995; Lewinsohn *et al.*, 1994). Difficulties experienced in psychosocial functioning include cognition, self-perceptions, interpersonal problems and coping skills (Lewinsohn *et al.*, 1997). For example, adolescents experiencing depressive symptoms have been found to report a pessimistic cognitive style, negative body image, low self-esteem and suicide-related behaviour (Gjerde & Westenberg, 1998; Kandel *et al.*, 1991) and less social support from friends and family (Lewinsohn *et al.*, 1997).

Thus, depressive symptoms are a major challenge societally, in the social environment of adolescents, and for innovation in mental health promotion. To meet these challenges, research on the development of mental health problems such as depressed mood in a general population of adolescents, and of psychosocial factors associated with these problems, is essential to identify targets for prevention and for promotion of positive mental health. This chapter will address depressive symptoms and depressed mood, psychosocial influences on these conditions and the relevant strategies for mental health promotion in this area.

## WHAT IS DEPRESSED MOOD?

Before describing the nature of depressed mood, it is important to state what it is not. It is not normal changes of mood, being happy and content the one moment and then sad and irritated the next. Nor is it feeling left out and being sad for several days and not feeling capable of doing anything. Neither is it sad feelings caused by a broken romantic relationship. These feelings belong to our normal range and do not usually imply a state of depression. Nevertheless, for some, the seriousness of these sufferings may lead to a sadness lasting for several weeks or months, problems relating to other people, self-isolation and an inability to go to school or to work. It may then be appropriate to talk about having a state of depression. Berge and Repål (2002) describe depressive feelings as thieves who steal happiness, self-confidence, energy and positive thinking from human beings.

The expression "depressed mood" in this chapter refers to self-reported symptoms in a (non-clinical) adolescent group. The adolescents reported feelings of sadness, hopelessness, unhappiness, not having anything to look forward to, and thoughts that life is not worth living. Depressed mood is often connected with anguish and social withdrawal. Previous investigations show that adolescents who feel depressed are often delayed in both their physical and mental development, which may, among other things, result in failure in school compared with adolescents at the same age. In addition to being very self-critical, they may not receive positive responses from other people, which may in turn reinforce an existing, negative self-image. The consequences of feeling depressed can thus contribute to the maintenance of a depression, and may lead to a more permanent depression in adult age (Harrington, 1993; Rutter, 1995). Depressed mood is also the most dominant symptom of a clinical depression (Compas *et al.*, 1993).

Because depression is variable, the phenomenon may also be measured along a continuum. However, there is still an ongoing debate on whether diagnosable or clinical depression is categorically different from a milder state and has unique external correlates, for example, impaired emotional and behavioural functioning (Lewinsohn *et al.*, 2000). The findings from recent decades are fairly consistent; subthreshold

depressive symptoms are related to at least some significant psychosocial dysfunction and functional impairment (Angst & Merinkangas, 1997; Gotlib *et al.*, 1995; Lewinsohn *et al.*, 2000). This perspective has implications for research, theory, treatment and prevention of depression. It determines the level of concern appropriate for depressive symptoms in isolation, even if the individuals do not suffer the intensity and duration that the clinical forms take (Bandura *et al.*, 1999). This is particularly evident in community studies that detect many individuals with symptoms bordering on disorder.

Consequently, researchers focus on both serious states of depression, measured with diagnostic criteria, and milder forms such as depressed mood.

## HOW COMMON AND STABLE IS DEPRESSED MOOD?

It is difficult to state categorically the frequency of depression among adolescents. However, investigations show that 5% to 8% have a depressive disorder that requires help from a specialist health service. A milder state of depression such as depressed mood is expressed by 15% to 20% of adolescents, with investigations showing a range of 10% to 35% (Compas *et al.*, 1993; Merinkangas & Angst, 1995). The question of who is characterized as depressed varies, depending on the kinds of questions asked, who is asked (age, gender, level of development, cultural and social conditions) and what criteria researchers choose when setting the cut-off between depressed/not depressed. In a study of Norwegian high school students, Anderssen *et al.* (1999) noted that 17% of the girls and 11% of the boys had symptoms of depression that negatively affected their functional level, and had possible long-term consequences. Symptoms of depression were investigated using strict classification criteria. Results from a longitudinal study (Norwegian Longitudinal Health Behaviour Study; NLHB) carried out at the Research Centre for Health Promotion in Bergen showed that at the age of 18 years, 16% of the boys and 23% of the girls reported moderate to high degrees of depressed mood (Holsen, 1996).

The majority of researchers who have studied the stability of depressed mood consider the phenomenon to be relatively stable from mid-adolescence to young adulthood for both boys and girls. In the NLHB study, we investigated relative stability by measuring on different occasions how adolescents retained their level of depressed mood relative to the average level in the group. An evident degree of longitudinal relative consistency was sustained for a period of up to four years. The corrected correlations of depressed mood for the total sample were moderate to high and ranged from .52 (between ages 15 and 19 years) to .77 (between ages 18 to 19 years) (Holsen *et al.*, 2000). Through more advanced statistical techniques, it is also possible to estimate a stable "trait" factor and a temporal "change" factor in depressed mood at different ages. The results obtained indicated that the "trait" factor increased with age (from ages 13 to 19 years), and the "change" factor decreased during the same period. This might imply that while adolescents experience more labile features of depressed mood during periods of considerable maturational change such as early adolescence, these tendencies tend to be more stable in mid- and late adolescence. These findings point to the importance of early identification of vulnerable youth to establish effective interventions before depressive symptoms become manifest.

## GENDER DIFFERENCES

Previous studies have shown gender differences in frequency of depression and age of onset that disadvantage girls (Cyranowski *et al.*, 2000). The gender difference in early adolescence is small, although there is a tendency for boys to report higher levels of depressive symptoms than girls before the age of 13. However, from the age of 13, girls tend to report higher levels of depressive symptoms than boys. Girls report the highest levels of depressive symptoms during ages 15 to 18 years. In emerging adulthood, between the ages of 19 and 23, the average level of depressed mood for girls declines and stabilizes. Among boys, the level is quite stable until age 18 years, after which it declines to the age of 23.

The transition from childhood to adolescence appears to be particularly demanding for girls. Researchers have explained these gender differences through various biological, psychological and sociological approaches. The physical and biological changes are most often explained through hormonal changes in puberty as well as the timing of puberty. These changes in isolation normally do not cause depressed mood (Nolen-Hoeksema, 1994). Boys and girls also go through different processes of socialization. Expectations of becoming a male adult are in many respects different from the expectations related to becoming an adult woman. Nolen-Hoeksema (1994) argues that girls are more vulnerable to developing a depression characterized by an introverted self-focus. This introverted self-focus coincides with certain challenges of adolescence that seem to affect girls relatively more than boys. Nolen-Hoeksema describes these challenges as pubertal changes, differing gender roles and social restrictions on girls' choices of career, lifestyle and appearance. Such societal influences point to the importance of social norms in regulating individual expectations regarding behaviour and appearance. Other researchers argue that social norms that associate depression among males with "weakness" make reporting more acceptable among girls than boys. Consequently, boys will be less willing than girls to acknowledge and report feelings of depressed mood (Campell *et al.*, 1992).

## BODY IMAGE AND DEPRESSIVE SYMPTOMS

A number of studies have examined psychosocial correlates of depressive symptoms. Some factors function not only as correlates, but also as antecedents of depressive symptoms. In addition to negative body image, poor family functioning, negative life events such as loss of a parent, negative cognition, poor coping skills and low self-esteem are all found to predict depressive symptoms (Alsaker, 1992; Lewinsohn *et al.*, 1994; Stice *et al.*, 2000; Wickstrøm, 1999).

The cognitive aspect of body dissatisfaction has contributed to an explanation for the increase in depressive symptoms, particularly among adolescent girls (Stice *et al.*, 2000). Several studies indicate that evaluation of one's own body and physical appearance seems to be a particular sphere of vulnerability during youth (Hankin & Abrahamson, 2001).

Wickstrøm (1999) reported an increase in body image dissatisfaction among girls that developmentally coincided with their elevated depressed mood scores. The questions adolescents seem to be asking themselves are: what do I think of myself, my body, my worth as a person, and what do others think of me? This process of evaluating oneself through perceptions of others' evaluations is described by Cooley (1902) as "the looking-glass self". What risks does an adolescent encounter living in a culture that places certain "demands" on physical appearance? Fredrickson and Roberts (1997) proposed a lifespan model for understanding the possible mental health consequences of a view of self as an object to be evaluated on the basis of appearance. Objectification Theory posits that the individual's sense of self in a Western society is socialized (to varying degrees) into constructing a view of self from other people's perspectives. Sexual objectification takes place both in actual interpersonal encounters as well as in the visual mass media (Fredrickson *et al.*, 1998). Women are sexually objectified more than men. Societal messages on diet, beauty and physical fitness effectively stimulate a woman to compare herself to an ideal weight, body shape and appearance (Mori & Morey, 1991). Objectification Theory states that psychological consequences such as a negative body image and low self-esteem are accompanied by observable life-course changes in females' bodies, first emerging in early adolescence, then declining in late middle age.

One might expect that the process of self-objectification and the stimulus for self-referent thoughts about body image and physical appearance that are represented by interpersonal encounters and the mass media may cause young people to experience a discrepancy between a real and ideal self. Higgins (1987) provides through his "self-discrepancy theory" another framework for understanding the emotional consequences of incompatible self-beliefs. The three central domains in this theory, the *actual* self, the *ideal* self and the *ought* self, have been found previously to be associated with depression. There is reason to expect that girls

will experience a larger discrepancy between the ideal and actual self than boys will. This is because as girls mature, they tend to gain weight in fat and increasingly abandon the thin ideal body shape that is dominant in modern Western societies. In contrast, boys tend to gain more in muscle mass and hence approach the ideal body shape of men as they mature.

We studied the relationship between body image and depressed mood at ages 13, 15 and 18 years (Holsen *et al.*, 2001), and found that girls on average were more dissatisfied with their bodies than boys at all ages. Girls reported the lowest mean level in body image at age 15 years. The mean level among boys increased during the same period. Even though the mean level in depressed mood and body image differed by gender, the correlations between body image and depressed mood were nearly as strong in boys as in girls. Thus, when a boy was dissatisfied with his body, this tended to co-vary with increased levels of depressed mood to the same extent that it did for girls. Additionally, the level of body image predicted change in depressed mood for both boys and girls, but at an earlier age for girls.

The findings that girls report higher levels than boys in both depressed mood and body dissatisfaction all through the adolescent period support previous research and theories in this field. The environment may contain stimuli that function as a reminder for girls of their possible lack of success in terms of living up to the cultural ideals. Negative body image perceptions may have consequences for girls' mental health and well-being. When boys experience a similar focus targeting their body appearance, there is reason to assume that such consequences may occur in boys as well. The desire to develop more muscularity has emerged as a specific concern in adolescent boys. In accordance with our findings, Jones (2004) points to the importance of appearance issues developing later in boys; hence, they move into the culture of muscularity associated with manhood first during high school years. Research on boys and body image is a field that most certainly will develop further in the future. In addition to gathering information from several sources using different methods including interviews and observations, longitudinal data following adolescent boys into adulthood would be useful. This would provide information about the relationship between body image and mental health within a long time-frame, and identify those aspects of the social and cultural context (both protective and risky) that may be the most prominent influences at different ages.

Based on the above knowledge about the relationship between negative body image and depressive symptoms, important health promotion strategies are needed to create supportive environments through interventions in the family and school setting. In particular, parents and teachers can play important roles in enabling adolescents to develop personal skills for dealing with the messages on body image and appearance. Moreover, reorienting health services may prove an effective strategy, especially through well-informed, theory-based interventions used by school nurses and other health personnel.

## CONCLUSION

This chapter has discussed the development of depressive symptoms during adolescence and the relationships between body image and depressive symptoms. Adolescence is a time of many physical, cognitive, and relationship changes. For most adolescents, these changes lead to a positive view of self and others. However, one group of adolescents appears particularly vulnerable to developing depressive symptoms, and the older they become, the more stable these tendencies appear. Thus, it is clearly of major importance that adolescents are engaged at an early phase to focus on positive development processes during this period.

When looking at depressive symptoms in relation to body image, we used specific theoretical frameworks to discuss the way cultural messages about beauty and attractiveness in society may affect how adolescents perceive themselves, and thus influence their mental health. To date, research in this field has focused primarily on girls because of their higher prevalence of body dissatisfaction and depressive symptoms.

However, recent research findings point to an increased focus on body image perceptions in boys as well, also in association with mental health.

Society is rapidly changing. The options and challenges offered to adolescents today are different to those offered one or two generations ago. For many adults, the lived world of adolescents, what occupies their minds and time and the ways they communicate may seem strange and unfamiliar. Adults are uncertain of the consequences, both positive and negative, that media messages from television, magazines, music videos and the internet may have on the thoughts, communication, behaviour and subsequently the mental health of young people. Thus, the situation demands continuing interest, updates, and involvement of families, teachers, coaches and others who are close to adolescents, as well as efforts to establish guidelines and sound policies at a macro level.

The topic of adolescents, body image and depressive symptoms is a major public health concern and should be put on the political agenda. Future national White Papers and strategic plans need to include critical reflections on the power of media messages, as well as comprehensive plans and research-based programmes for innovations in mental health promotion in diverse settings such as families, schools, sport clubs and youth health services.

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# CHAPTER 8

# Social Influence Processes on Adolescents Health Behaviours

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**Abstract**: This chapter presents the family, school and leisure activities as the main settings for adolescent development and discusses the influences of social processes on health behaviours in these settings. The main processes are described through the social psychological constructs of social norms and social support, and observational learning, an approach informed by social cognitive theory, one of the most influential theories used in health promotion. The chapter discusses legislation and international conventions as more formalized norms. The role of such norms in promoting healthy behaviours among adolescents is demonstrated by findings from an international study on the effect of national legislation on smoking in schools. The influences of these social processes in the main developmental settings for adolescent health behaviour are analysed in terms of systems theory, particularly ecological systems theory, and the reproduction of social inequality.

**Keywords:** Health behaviours, social processes, settings, social norms, social support, observational learning, social cognitive theory, legislations, ecological systems theory, reproduction of social inequality, Health-behaviour in School-aged children study (HBSC).

## INTRODUCTION

This chapter concerns the promotion of healthy behaviours in adolescence. Research on two different types of health behaviours, leisure-time physical activity and the use of tobacco, form the basis of a discussion of how various social processes relate to health behaviours among young people. The Health Promotion (HP) strategy highlighted focuses on building supportive environments to promote healthy habits among adolescents.

Tobacco use and physical inactivity are recognized as significant risk behaviours for cancer, cardiovascular diseases, depression and a number of other public health problems (Murray & Lopez, 1997). While behavioural research on tobacco use is well established, research on the promotion of physical activity is a relatively new, but rapidly expanding field of study in health promotion research. One of the reasons for this upsurge of interest is the obesity epidemic. According to the World Health Organization (WHO) (2007), obesity has reached epidemic proportions globally, with more than one billion adults overweight and at least 300 million adults clinically obese. Obesity is a major contributor to the global burden of chronic disease and disability. Increased consumption of more energy-dense, nutrient-poor foods with high levels of sugar and saturated fats, combined with reduced physical activity, have led to current obesity rates that are three times higher than they were in 1980 in some areas of North America, the United Kingdom, Eastern Europe, the Middle East, the Pacific Islands, Australasia and China. Moreover, the obesity epidemic is not restricted to industrialized societies; the increases are often faster in developing countries than in the developed world.

Health promotion recognizes tobacco smoking and physical inactivity as major risk factors for public health. Therefore, preventing adolescents from adopting tobacco use as a habit, and at the same time promoting physical activity as a lifelong habit are important health promotion aims. Simultaneously

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preventing one type of behaviour while promoting another may seem contradictory. However, the objectives may be regarded as similar because the main goal is to sustain naturally occurring behaviours in early childhood; that is, not smoking and engaging in high levels of physical activity.

To inform interventions and public health policy directed at tobacco use and physical activity, knowledge and insights about their initiation and sustenance are needed. We have applied theories of socialization and social influence to examine how social factors may at different levels influence adolescents' use of tobacco and their participation in leisure-time physical activity. These factors include macro-level conditions such as policies, legislation and social inequality, community factors such as school restrictions and norms, and micro-level factors such as model behaviour and social support from family and peers.

## HEALTH BEHAVIOURS AND HEALTHY HABITS

Health behaviours and habits are usually defined as behaviours related to health. A habit can be defined as an automatic response that has developed through the repetition of a specific behaviour under stable conditions (Verplanken, 2006). A habit can be considered a behaviour that is conducted automatically, independent of cognition or decision-making, and constituting part of an individual's daily or weekly activities. Based on these definitions, most health behaviours such as brushing teeth, smoking and eating can be regarded as habits. Other health behaviours such as regular physical activities involving daily jogging or cycling/walking to work, may in some instances be considered as habits. In other instances, physical activity may depend on the individual making a decision to exercise, with no regular pattern in the activity.

The aim of HP is to establish healthy habits at an early stage in life. The idea is that the earlier an individual gets used to conducting a specific behaviour, the more likely it is that this behaviour will be maintained. The factors involved may be genetic dispositions, stable psychological characteristics (such as personality), stable contextual conditions (such as social position of the family, availability of relevant facilities or opportunities), and learning appropriate skills at an early stage. The empirical evidence supporting the reasoning that behaviour early in life is related to behaviour at later stages is scarce, mainly because of the lack of long-term longitudinal studies. However, several studies have documented that the majority of adult smokers initiated smoking before they reached the age of 18 years, which indicates that smoking is established as a habit during adolescence. The evidence regarding physical activity is even scarcer. Findings from a recent Norwegian study suggest that individuals who are among the least active at the age of 13 years remain among the least active at the age of 23 years; however, there was a large heterogeneity in the development of physical activity among those who were active at the age of 13 years (Kjønniksen *et al.*, 2008).

## SOCIAL PROCESSES AND NORMS INFLUENCING SMOKING AMONG ADOLESCENTS

The main mission of health promotion is to identify which type of interactions foster positive development. In his ecological systems theory, Bronfenbrenner (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998) conceptualizes social interactions in terms of the roles played by people, how they relate to each other and the developing person and what kind of activities are going on in a social context. His theory offers an insight into how social interactions are formed by the interplay of five different levels within a social system: 1) the microsystem, which involves the immediate environments of family, school, peer group, neighbourhood, and youth leisure programs; 2) the mesosystem, which is comprised of connections between immediate environments (*i.e.*, a child's home and school); 3) the exosystem, which consists of external environmental settings, which only indirectly affect development (such as the parents' workplace); 4) the macrosystem of cultural values, laws, national economy, political system *etc.*; 5) the chronosystem, or patterning of environmental events and transitions over the life-course. Each system contains roles, norms and rules that can powerfully shape development.

According to ecological systems theory, school influences on adolescent smoking may conceptually be understood as an interplay between roles, activities and relationships: 1) at the micro level, in terms of how school-teachers influence students through their own behaviour (smoking *versus* not smoking, enforcement of smoking restrictions); 2) at the meso level, in terms of how smoking restrictions in schools are reflected in family smoking practices; 3) at the exo level, where events that occur in settings not involving the adolescent as an active participant eventually affect the micro-level settings, for example, the development and implementation of school policies on restriction of smoking by school staff; 4) at the macro level, where national tobacco control policies are implemented in schools.

This understanding of systems in an individual's social context was applied in the Control of Adolescent Smoking (CAS) study, an international study of how factors in the various systems from macro to micro levels relate to tobacco smoking among adolescents (Wold *et al.*, 2004a, 2004b). Eight countries participated in the study: Austria, Belgium (French-speaking Belgium only), Denmark, Finland, Germany (North Rhine-Westphalia only), Norway, Scotland and Wales. Schools were chosen as the subject of the study, not only because of their impact on adolescent development but also because aspects of the school environment appear to be related to smoking initiation among young people.

Data for the CAS study were collected at three levels: national, school and student. The data collection at the student level was carried out as part of an existing transnational survey on health behaviours among children and adolescents "The Health Behaviour in School-Aged Children: A WHO Collaborative Cross-National Study" (Currie *et al.*, 2009; www.hbsc.org). The total student sample was 13,090 students aged 15 years. A staff survey administered as an integral part of the field-work with students received 2,162 responses. National data on governmental tobacco control policies relating to smoking at school were gathered through a review of scientific and official documents and interviews with key informants in each country. The hierarchical structure of the data enabled the use of multilevel techniques in statistical analysis.

## DESCRIPTIVE AND INJUNCTIVE NORMS OF SMOKING

Ecological systems theory prompts us to find out who in the adolescent's social context may influence whether or not they take up smoking, and how they exert an influence, for example, through parents' or teachers' modelling smoking behaviour. Parents are considered the primary socializing agents of children and their behaviour is expected to affect their offspring. This applies to smoking, which has been demonstrated by many studies in the past (de Vries *et al.*, 2003; Turner *et al.*, 2004). The CAS study confirms these findings. Adolescents who reported that their parents smoked were more likely to report that they themselves smoked than adolescents who reported that their parents did not smoke (Wiium *et al.*, 2006a, 2006b). According to social cognitive theory (Bandura, 1986), adolescents are expected to be much more likely to take up smoking if they observe that their parents are smoking. This is so because people tend to learn new behaviours through a modelling process in which significant others, such as family members, teachers and best friends, constitute available and powerful models of behaviour.

Bandura's principles of observational learning suggest that attention plays an important role in understanding how model smoking may influence adolescents' intention to smoke. The more adolescents are exposed to model smoking, the more likely they are to give it their attention. Attention created by model smoking can then lead to motivation. If they have a positive emotional relationship with the model and perceive that the model derives pleasure from smoking, they may be convinced that they will also experience pleasure should they smoke. Moreover, if adolescents perceive that many attractive and intelligent people are smoking, smoking could be seen as acceptable in their community. Once smoking appears to be a norm, it may serve as a societal prompt for such behaviour and thus foster the intention to smoke.

The individual or group perception of what most people do is often called a descriptive norm (the norm of "is") (Cialdini *et al.*, 1991). Previous studies have demonstrated the powerful influence of descriptive norms, for example, in Asch's (1956) studies of conformity. According to ecological systems theory, adolescents are more likely to be influenced (*e.g.*, to adopt a new behaviour such as smoking or change their behaviour) if there is a compatibility between norms in different settings. This means that if descriptive norms regarding smoking are the same in the family, the school and in other public arenas, then adolescents are more likely to adopt that norm. Thus, if adolescents perceive that smoking is common because parents, teachers and others in public places smoke, they may perceive that smoking is the norm, and may be more willing to take up smoking. Conversely, if they see that most people do not smoke in their environment, non-smoking becomes the descriptive norm, and it is more likely that they will never start smoking themselves. The findings of the CAS study suggest that 15-year-olds who reported that their parents, teachers and best friend were smoking, were more likely to report that they intended to smoke daily in two years' time than those who reported fewer smokers among their significant others, regardless of whether they themselves were smokers or non-smokers (Wiium *et al.*, 2006a).

Most societies contain a pattern of mixed descriptive norms. Some adolescents perceive smoking in their families; others do not. Schools vary to the degree that students are exposed to teachers who smoke, and smoking in public places is common in some places and restricted in others. Thus, adolescents are likely to perceive inconsistent descriptive norms regarding smoking in their environment. Moreover, persons and activities in different settings (*e.g.*, school, family and sports club) may either reinforce each other's influences, or perhaps contradict or weaken the influence. For example, an important mesosystem question is whether it matters if teachers smoke, if parents do not. This question was examined in the CAS study, with the addition of another set of norms, namely, injunctive norms.

Norms are important because they constitute order in the social world, and some order is necessary for human action. Norms are defined as expectations (beliefs, rules and values) shared among members of a group (Cialdini *et al.*, 1991). Shared expectations concerning the behaviour of a specific member of a group define the role of that person in the group. There are various types of norms, each underlined by different motivational forces that are associated with behaviour, and originating from different societal levels. Injunctive norms (sometimes referred to as subjective norms) refer to an individual's appraisal of the overall social support for the target behaviour (the norms of "ought") (Ajzen, 1991; Cialdini *et al.*, 1991). At the individual level, we measured such norms using a set of questions about what the adolescents' thought their significant others want them to do (*i.e.*, "Do you think your father/mother/best friend/other friends would mind if you smoked in two years from now?") and subjective societal norms (adolescents' opinions about which smoking restrictions should be instituted in their community). At the school level, injunctive norms were represented by responses from school staff concerning school restrictions on student and teacher smoking, as well as how these restrictions are enforced.

An interaction effect was observed at the meso level when comparing descriptive and injunctive norms in school with family norms (Wiium & Wold, 2006). The probability of being a smoker was low, and about the same for students from smoker and non-smoker families when they attended schools with a high level of enforcement of school smoking restrictions. Among students who attended schools with a low level of enforcement, the probability of being a smoker was much higher among students from smoker families than from non-smoker families. Thus, school norms that are negative to smoking seem to affect students who perceive family norms that are positive to smoking, but make no difference for students from non-smoking families.

The CAS study suggests that various norms such as shared context (belonging to the same school class), subjective, descriptive, subjective societal norms and subjective estimates of smoking prevalence in the peer group were significantly related to adolescent smoking (Wiium *et al.*, 2006, 2008). As a whole, school class level variation in adolescent smoking was largely explained by the various normative constructs

operating at school class level, meaning there was a main effect of shared context additional to the effect at the student level.

## REPRODUCTION OF SOCIAL INEQUALITY IN SMOKING

Why do some parents smoke while others do not, and why do schools differ with respect to smoking restrictions and teacher smoking? Several studies have suggested that there are social inequalities among adults in relation to smoking (Jarvis & Wardle, 1999; Thomas *et al.*, 2008). People in higher socio-economic groups report that they smoke less than do persons in lower socio-economic groups. Since social inequalities tend to be reproduced across generations (Bourdieu, 1979), it is likely that social inequalities in health behaviours among adults such as smoking will also be reproduced in their children. Our studies of adolescents show that smoking among adolescents depends on their socio-economic status (SES) as measured by family wealth (Torsheim *et al.*, 2004). In a national representative sample of Norwegian 15-year-olds (Torsheim *et al.*, 2004), 21% of 15-year-old girls in the lowest SES group reported smoking tobacco daily, compared with 11 % in the highest SES group. These findings that suggest the presence of different descriptive norms by SES probably also reflect different injunctive norms by SES.

The reproduction of social inequalities in health behaviours is not only limited to the link between children and their parents. Bourdieu (1979) suggests that the educational system also plays an influential role. It is well established that adolescents whose parents are well educated tend to do better in school and become more highly educated themselves compared with adolescents whose parents are less educated. In addition to being decisive for future socio-economic status, type of education also influences lifestyle habits such as smoking. For example, we reported that students attending vocational senior high school scored higher on risk behaviours including smoking than students attending general high school (Wold *et al.*, 2000). Moreover, we found that students who felt alienated from school were more likely to smoke than students who were satisfied with school (Nutbeam *et al.*, 1991). The reproduction of social inequalities may be regarded as an underlying process that influences smoking among adolescents: first, because parents' social positions are related to parental smoking; and second, because the offspring's experiences at school are related to their perceptions of smoking. Insights into the reproduction of social inequality are important for health promoters, because social inequality probably leads to differences between young people in opportunities to be in control of their lives and in making healthy choices.

Social inequalities in smoking have changed during the last 60 years in Western countries. During the 1950s, smoking was more prevalent among highly educated men than in other groups (Lund & Lund, 2005). The present-day situation is precisely the opposite: the lowest prevalence of smoking is found among highly educated men, and the highest among women with the lowest levels of education. Speculations on this change suggest two influences: 1) health education has successfully reached and influenced highly educated segments of the population with its information about the health hazards of smoking; 2) the tobacco industry has successfully reached the lower-educated segment through its use of emotional appeals in the direct and indirect advertising of tobacco products (*e.g.*, through product placement in the entertainment industry) (Kreslake *et al.*, 2008; Lund & Lund, 2005). These changes in the patterns of social inequality in smoking represent chronosystem influences and imply that contemporary adolescents are growing up under different normative circumstances than their parents.

## MACRO–MICROSYSTEM RELATIONS

Beyond the influences of the social norms in micro- and mesosystems, exosystem influences related to laws and regulations concerning tobacco smoking at municipal or county level determine whether teachers can smoke during school hours, and whether parents can smoke at work. These exosystem factors are in turn influenced by macrosystem values and regulations such as national laws forbidding smoking at schools and in public places. National policies restricting smoking in schools were found to vary considerably among

countries participating in CAS (Wold *et al.*, 2004b). The main differences lay in whether national policies restricting teachers from smoking were in place, and the level of government at which these policies were developed. The countries fall into two main categories: 1) those with no national policies related to teachers smoking *per se* (Denmark, Germany, Scotland and Wales); 2) those with national laws that explicitly restricted teacher smoking during school hours (Austria, Belgium, Finland and Norway).

In the latter countries, legislation concerning teacher smoking differed. In Norway, teachers were not permitted to smoke indoors, but were allowed to smoke outdoors on the school premises. In Finland, smoking among teachers was banned outdoors on the school premises and restricted to designated rooms indoors. In Austria, the law permitted smoking only within the school building in designated rooms, with no restrictions on smoking outside the building on the school premises. The findings indicate a clear relationship between a restrictive national policy and the number of schools with a smoke-free policy, defined as schools with a total ban on smoking among all students and teachers (Wold *et al.*, 2004b). In the countries with national laws restricting teacher smoking, 47% of the schools were reported to be smoke-free, compared with 18% of the schools in the countries without such laws. Thus, national tobacco control policies seem to be implemented effectively and underpin local-school-level policy and its implementation.

These results suggest that injunctive norms in the macrosystem in terms of tobacco control policies influence exosystem injunctive norms (school smoking restrictions). We hypothesized that these exosystem norms in turn had an effect on microsystem norms by influencing the quantity and quality of students' exposure to smoking among teachers during school hours. The findings supported this hypothesis: students were less likely to be exposed to indoor tobacco smoke in schools in countries where restrictive national smoking policies were in place (Wold *et al.*, 2004a). Thus, descriptive norms regarding non-smoking seem to have been influenced by norms at school and at the national level.

It should be noted that in some countries, very restrictive national policies on indoor smoking at school seem to push teacher smoking outdoors, resulting in the negative and unforeseen side-effect of making smoking (and smoker role models) more visible to students. Thus, policies restricting teacher smoking at school may contribute to strengthening students' injunctive norms regarding non-smoking, but weaken the descriptive norms. These findings emphasize that although the level of restrictiveness is an important issue, the development of effective tobacco control policies also depends on sensible consideration being given to the nature/type and quality of restrictions, as well as efforts aimed at promoting their enforcement and compliance.

## HOW ARE NORMS DEVELOPED AND CHANGED?

The above findings from the CAS study exemplify how adolescents' perceptions of norms regarding smoking may be developed through social processes in their environment, and how these social processes in turn seem to be determined by decisions and norms at community and national levels. A pertinent question to be raised then is this: where do these exo- and macro-level decisions and norms regarding restrictions of smoking come from?

One answer may be that they come from "above", from the international community. Several international conventions and agreements concerning tobacco control have been held. The most comprehensive and recent convention was the WHO Framework Convention on Tobacco Control, which entered into force in 2005 (WHO, 2003). The treaty has 168 signatories, including the European Union, which makes it the most widely embraced treaty in UN history. Member states have signed the convention indicating that they will strive in good faith to ratify, accept or approve it, and show political commitment not to undermine the objectives it sets out. The following core demand reduction provisions are listed in the convention: price and tax measures to reduce the demand for tobacco; non-price measures to reduce the demand for tobacco, such as protection from exposure to tobacco smoke, regulation of the contents of tobacco products,

regulation of tobacco product disclosures, packaging and labelling of tobacco products, education, communication, training and public awareness, tobacco advertising, promotion and sponsorship, and demand reduction measures concerning tobacco dependence and cessation. The core supply reduction provisions mentioned in the treaty are illicit trade in tobacco products, sales to and by minors, and support for economically viable alternative activities.

Such conventions may be regarded as shared international expectations (*i.e.*, norms) concerning tobacco use, and directly address national policies on smoking by demanding that participating countries protect their citizens from exposure to tobacco smoke.

However, such conventions do not fall down from the sky. Many decades of hard work lie behind the WHO Convention. This hard work has been contributed by the member countries, parents, teachers, adolescents, doctors, nurses, scientists, politicians and others engaged in the promotion of health and well-being. Thus, norms are formed through a two-way process. They are often initiated from within microsystems (bottom-up) and may become part of the macrosystem as formal laws on school smoking restrictions. When laws have been put into effect, they may function as norms that help to create social order. Thus, a top-down process is initiated that influences the microsystem norms on smoking among new generations of adolescents, and the above findings from the CAS study may serve as an illustration of how this process occurs.

## SOCIAL PROCESSES INFLUENCING ADOLESCENT PHYSICAL ACTIVITY

Many lessons may be learned from the experience of tobacco prevention, especially in terms of how to develop norms on acceptable or desirable behaviour. However, a consideration of the promotion of physical activity reveals some notable differences, especially with regard to how the behaviour affects others. Unlike passive smoking, physical inactivity does not seem to be harmful to anyone except the individual. The moral indignation often portrayed in tobacco prevention messages is therefore not appropriate in physical activity promotion messages.

Another difference is that while tobacco use is considered a negative harmful behaviour and the behavioural goal is passivity (*i.e.*, not smoking), the opposite holds true for physical activity, which is considered a positive behaviour that should be encouraged. This positive message of physical activity may be easier to communicate to adolescents. While parents are expected to discourage their adolescents from taking up smoking, they can easily encourage participation in physical activity. Encouraging participation in physical activity may also be easy because usually structured voluntary activities such as leisure-time physical activity are intrinsically motivated, *i.e.*, adolescents themselves choose to participate. Moreover, such activities provide opportunities for development and demonstration of competence as well as possibilities for relatedness with peers and adults taking part in the activities (Larson, 2000). This may be one explanation for why sports and physical activity are the most popular leisure activities among young people. Therefore, there is a huge health promotion potential in increasing participation in organized sports and other leisure-time physical activities.

International conventions on physical activity promotion are less developed than in the field of tobacco prevention. With respect to the need to encourage active lifestyles, a European Commission (EC) White Paper (A Strategy for Europe on Nutrition, Overweight and Obesity) (EC, 2007a) emphasizes the role of sports organizations in public health, with special reference to young people and individuals in low socio-economic groups. Drawing from this White Paper, a complementary White Paper on Sport (EC, 2007b) sets out the significance of sport in public health strategies of the EU. The EC White Paper on Sport underlines the importance of sport engagement as a tool for health-enhancing physical activity. According to this White Paper, the health-promoting aspects of participation in sport are often under-utilized and need to be further developed, particularly at the grass-roots level. Similar developments have taken place in the USA.

For example, a strategy document published by the Center for Disease Control and Prevention (CDC, 2005) on Promoting Better Health proposes that youth sports and recreation programmes are primary vehicles through which communities can increase physical activity levels and fitness among children and adolescents. Thus, global and national strategies on the promotion of physical activity are currently being developed. Norway was the first country in the world to launch a National Action Plan for Physical Activity from 2005 (Ministries, 2005). These official documents may be regarded as the first steps in the direction of international treaties and national laws on the rights and duties of various actors with regard to stimulating physical activity, similar to those developed in the field of tobacco prevention.

## THE SIGNIFICANCE OF THE PHYSICAL ENVIRONMENT

Another aspect in which promoting physical activity differs from promoting tobacco-free adolescence is the influence of the physical environment. Tobacco use is impossible without the availability of the substance, which clearly means that tobacco must be physically present in the individual's environment. In contrast, most types of physical activity do not depend on just one single product, but on the availability and accessibility of appropriate indoor or outdoor facilities. Thus, in addition to promoting positive descriptive and injunctive norms for staying physically active, we need more knowledge on how to influence the physical environments in which people live, work, learn and spend their leisure time.

Norwegian findings from the HBSC study indicate that young students are more likely to be physically active in schools with many facilities for physical activity than in schools with fewer facilities (Haug *et al.*, 2008). In schools with fewer facilities and opportunities for physical activity, the activity of students was low, regardless of their own motivation for physical activity. With more facilities available, a higher proportion of students who were more motivated to participate in physical activity reported being physically active than students with less motivation. These findings illustrate that the physical environment at school may be decisive in enabling students to participate in physical activity during school hours, and that participation in physical activity depends on the interplay of individual and structural factors.

## SOCIAL NORMS AND MODELLING INFLUENCES ON ADOLESCENT PHYSICAL ACTIVITY

Unlike smoking, which becomes a habit between the ages of 13 to 18, physical activity is high during the first years of life, and then the activity level generally decreases during adolescence (Sallis *et al.*, 2000). Therefore, the challenge to promoting physical activity as a lifelong habit is to sustain physical activity during adolescence and to prevent the onset of smoking. Thus, one might think that different HP strategies are necessary to influence these two seemingly opposite behaviours.

However, our studies on social processes that influence physical activity suggest that the same general principles apply here as for smoking. Descriptive norms regarding physical activity as indicated by perceptions of the physical activity habits of others have been found to influence adolescent physical activity. Parents and peers are among the most important role models for adolescents with regard to physical activity. We have found that adolescents who report that their parents and friends exercise are more likely to engage in these behaviours themselves (Anderssen *et al.*, 2006; Wold & Anderssen, 1992). Findings from the HBSC study of students aged 11, 13 and 15 years in 10 European countries indicate that when the students report that three or more significant persons (best friend, parents and/or siblings) take part in physical activity, 84% of boys and 71% of girls report themselves as sports active (Wold & Anderssen, 1992). When none of these significant others is involved in physical activity, 52% of boys and 30% of girls report that they are sports active. These data suggest a strong influence from significant others and the importance of parental habits for adolescents, regarding both smoking and physical activity.

As is the case for smoking, there seems to be social inequality in leisure-time physical activity. In a national representative sample of Norwegian 15-year-olds in the HBSC study (Torsheim *et al.*, 2004), the mean

number of hours per week spent on vigorous leisure-time physical activity was 2.2 among girls in the lowest SES group, compared with 3.1 in the highest SES group. Analyses of data from adolescents from Austria, Norway and Wales showed participation in leisure-time physical activity was related to the combined effects of their experiences at home, at school and with peers (Wold *et al.*, 1994). The results supported the assumption that patterns of physical activity are reproduced from one generation to the next in the same way as smoking is reproduced.

In a study of Norwegian 13-year-olds, social support for physical activity was moderately correlated with the reported physical activity level of respondents (Anderssen & Wold, 1992). Social support was measured as instrumental support, reflecting the patterns of parents transporting their offspring to exercise sessions and providing emotional support and encouragement to participate in exercise. As with the findings concerning tobacco use, injunctive norms, as expressed by adolescents' perceptions of the importance parents and friends place on being a good athlete, were also found to be related to increased levels of physical activity.

As suggested above, although there are several important differences between these two types of behaviours, the social influence processes seem very similar. The impact of various social norms on these behaviours seems to be comparable and makes an important contribution to our understanding of how physical activity and non-smoking can be sustained during adolescence.

## CONCLUSION

This chapter has discussed how social processes may influence the adoption of healthy lifestyle habits among adolescents. Sustaining physical activity and preventing tobacco use are regarded as important health promotion strategies to help adolescents achieve the competence deemed necessary for an active and happy life. Ecological systems theory has been proposed as one perspective to guide investigations of how healthy lifestyle habits can be promoted. The concept of norms is useful for understanding how behaviour is influenced. Norms have been recognized as influencing the way the social context of adolescents is structured, in particular with regard to making role models available for observational learning. We have argued that the social order created by norms seems to determine the extent to which healthy choices are made easier choices. The development of health-promoting norms through bottom-up and top-down processes illustrates the interplay between micro- and macro-level factors, and suggests that a happy individual life goes hand in hand with a good and nurturing society.

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# SYSTEMS OF HEALTH PROMOTION

# CHAPTER 9

# Norwegian Health Promotion Policy: The Pendulum Swings from 1984 to 2007

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**Abstract**: In this chapter, the macrosystem-level influence on health promotion developments in Norway is analysed by demonstrating how the development of the Norwegian welfare state, initiated before World War II, has been influenced by shifting political foci and priorities. The development of the welfare state has been largely a political matter guided by left wing governments with high priorities on improving structural conditions and securing healthy living conditions in work-places, housing, education and access to health services. Similarly, development of the Norwegian Health Promotion Policy over the last two decades has been influenced by varying levels of politicalization.

Under left wing governments, health policies were developed as opposed to policies primarily focused on prevention of disease; there was also an increase in local autonomy in implementation of national health policy and a focus on equity in health. In all these change processes, emphasis was given to how public health could be improved through the governing system from national to local implementation and by involvement of an increasing number of sectors. During the periods when right wing governments were in power, more emphasis was given to individual responsibility for health and health policy declined in political importance. This pendulum swing in the politicalization of health policies is analysed through White Papers and action plans. It traces how Norwegian governments have acted upon the international health promotion movement initiated at the Alma Ata conference and through the Ottawa Health Promotion Charter. Similar pendulum swings are also found in other Western countries.

**Keywords**: Health promotion, public health, policy, macro-level, welfare state, pendulum swings, politicalisation, local autonomy, disease prevention, equity in health, change processes, implementation, cross-sectoral.

## INTRODUCTION

The welfare state has a long history in Norway and most other European countries. Even though the concept of the welfare state may vary across countries and it is administered through various institutional arrangements, the basic idea of redistribution of resources among social groups remains at the core. Building health policy is one aspect of building the welfare state.

Issues of health and health care have been defined differently during certain periods. In some periods health has been addressed as a private issue or an issue for market forces, while in other periods, health and health care have been defined as political issues, put on the political agenda and subject to public debate. Starr and Immergut (1987) show how health issues have been moved in and out of the political sphere during different historical periods. They define the term politicalization as a movement of political interest or control beyond previously accepted lines. They define "depoliticalization" as the opposite process; the attempt to move an issue or activity out of political discussion or control.

In the early development of the welfare state, health issues were clearly politicized. The driving forces were

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the labour movements, and the focus of welfare and health policies was the social and economic determinants of population health. Behind the development was an understanding that living conditions in particular influence population health in fundamental ways. The most important actions were aimed at changing structural conditions and securing healthy living conditions in terms of work, housing, sanitation and education (Esping-Andersen, 1990).

In the post-war period, health issues went through a period of medicalization and depoliticalization, during which health issues were regarded as issues for professionals and administrators (Starr & Immergut, 1987). In the late 1960s and 1970s, health issues again became a matter for political discussion and polarization, expressed through critiques of the health services. One factor behind these movements was the rise in health expenditures, which was particularly addressed by right wing political parties. From the left wing, democratization was among the issues in focus. In the field of public health, right wing parties attempted to move the field to the private sphere and the market, with an emphasis on citizens' personal responsibility for their health and a focus on lifestyle issues. The left wing demanded structural and political remedies to solve health problems, rather than just medical treatment (Starr & Immergut, 1987).

Health Promotion can truly be said to be a child of the leftist critique of the health services, first expressed in the 1979 Alma Ata Declaration and later in the 1986 Ottawa Charter.

The Ottawa Charter politicized health issues through five strategies that extended from environment and policies, *via* local communities to the reorientation of health services. The aim of this chapter is to present and discuss how health promotion issues have been politicized and depoliticized over the last decades. While the point of departure is Norwegian health promotion policy examples, these will however serve as examples of trends taking place in most Western countries. Even though the pendulum swing is not synchronic for all countries, similar movements can be observed.

## THE NORWEGIAN CONTEXT

Health promotion inspired by the Ottawa Charter has been squarely on the Norwegian political agenda for two decades. However, national policy emphasis has shifted the balance between strategies aimed at individuals and structural strategies. During the two decades examined by this study, four important national policy transitions have greatly influenced how health promotion was conceived and directed:

- Health on the political agenda, 1984-1992;
- Emergence of a new public health, 1993-2002;
- 2003: A step back;
- 2005: A focus on equity and equality.

## METHODS AND MATERIALS

Document analysis concentrated on policy papers published in the period from 1979-2007, with government Green Papers (policy drafts) and White Papers (policy statements) as the main research material. The analytic approach was influenced by several considerations. In many cases, documents may be important sources of data in policy research (Yin, 1990). Importantly, and particularly in contrast to interviews, documents are "mute" material. Interpretation of document data is influenced the reader's subjective lens, a matter upon which the analyst needs to reflect. Hodder (1994) emphasizes that the meaning of written text lies in the reading of it, such that when a text is read in various contexts, shades of meaning vary according to context. The public documents used in this study have a focus on health

promotion and were analysed in a health promotion context. Thus, analysis focused on discerning the health promotion ideologies and their linkages to strategies propounded in the documents. The subjectivity implied here is inevitable, given the material, the method and the purpose of this study.

## RESULTS

### Phase 1: Health on the Political Agenda, 1984-1992

From the 1970s, ideologies of community action, local government and decentralization became increasingly dominant in public debate throughout Europe. This ideology was also strongly present in the work of the Norwegian committee that prepared the Municipal Health Care Act, first presented in a government Green Paper in 1979 (Ministry of Social Affairs, 1979). As a consequence of the Act, the municipalities were assigned responsibility for primary health care. The financing system was accordingly changed from a system with ear-marked funding to block grants, which implied that the municipalities could themselves prioritize how the grants were to be spent.

It is fair to say that this was a period of politicalization of health promotion in Norway. When the Norwegian Municipal Health Care Act was implemented in 1984, a relative shift in emphasis from acute care to primary health care was signalled, and the call for decentralization and local responsibility was the prevailing rhetoric. This contrasted with the main thrust of development in the health services during the 1960s and 1970s, during which extensive building of hospitals took place, and political attention was focused on hospitals and acute care services as the top national health care priorities (Erichsen, 1996).

Health promotion and disease prevention were explicitly emphasized in the 1984 Act. The health-promoting and disease-preventing tasks of the municipality were specified as being the provision of community health clinics, school health clinics and health education services. A national evaluation of the impact of the Municipal Health Care Act was carried out in 1989. It concluded that the arena of disease prevention and health promotion had experienced less growth than other arenas of the health services (Ministry of Social Affairs, 1989). Partly on the basis of this finding, the first National Programme for Health Promotion was launched. The points of departure for the programme were the "new" ideologies of health promotion, as stated in the Ottawa Charter and in the government White Papers of the time. The objectives of the programme were to contribute to an increased focus on health promotion in the municipalities and to stimulate greater intersectoral collaboration (Fosse, 2000).

### Phase 2: Emergence of A New Public Health, 1993-2002

During Phase 2, the earlier priority given to health promotion was further underlined and the politicalization of health issues continued. Health for All and the Ottawa Charter strategies were emphasized in two ground-breaking Norwegian White Papers on health (Ministry of Social Affairs, 1987, 1993). The rhetoric shifted from a focus on disease to health, and community action and cross-sectoral co-operation were strongly proclaimed.

In the 1993 government White Paper on health promotion, the Norwegian vision of health promotion policy was explicitly expressed in terms of the Ottawa Charter. This vision of health promotion had a much wider scope than the disease prevention paradigm that was dominant at the time. Health promotion was seen as involving many aspects of municipal activity and involving all sectors, while disease prevention was viewed as primarily a matter for the health services. Health promotion was to focus on improved living conditions and ideally involved a critical focus on policy, communities and professions. Intersectoral collaboration was to be the hallmark of health promotion. Disease prevention on the other hand, was to continue managing the traditional prevention tasks of the health services.

As described in the 1993 White Paper, health promotion was to be intensely *local*, with action at the lowest organizational level, that of the municipality. Health promotion was also emphasized as being a task for all sectors of society for which cross-sector planning and implementation were essential.

This period of politicalization can be said to have culminated with the government Green Paper "Everyone Is Useful. Strengthening Public Health in the Municipalities" (Ministry of Social and Health Affairs, 1998), which took its point of departure as the 1993 White Paper on health promotion and explicitly identified its origins in the Ottawa Charter. It focused particularly on the key role of local government and local institutions in promoting community health and emphasized the concept of empowerment ideology, within a Norwegian context. With this policy document, Norwegian public health seemed to take yet another clear step away from the individually oriented strategies of former times, and placed even greater emphasis on structural and political solutions.

**Phase 3: 2003—A Step Back**

A new government White Paper on public health was issued in 2003 (Ministry of Health Affairs, 2003). It signalled a change for Norwegian public health policy in a direction characterized as depoliticalization. The focus of the White Paper was on both health promotion and disease prevention and attempted to balance responsibility for the health status of the population. As in previous policy periods, societal responsibility for providing a healthy living climate was still acknowledged, but the role and responsibility of individual citizens was emphasized anew. A main objective of the new policy was to enable people to take responsibility for their own health through improving their lifestyle.

The White Paper of 1993 was issued by a social democratic government. The 2003 White Paper issued by a conservative-liberal coalition signalled a policy shift to individual responsibility for health, a call for expert-dominated management of health issues and a focus on epidemiological knowledge. The 2003 White Paper moved Norwegian public health policy several ideological steps away from the vision inspired by the Ottawa Charter. That this was a clear policy break with the past was evidenced by the almost complete disconnection between the 2003 White Paper and the previous Green Paper "Everyone Is Useful. Strengthening Public Health in the Municipalities" (Ministry of Social and Health Affairs, 1998). Usually, government Green Papers form the basis for White Papers and it could therefore have been expected that the two Papers would exhibit a certain degree of synchrony. This did not apply to these two Papers to the extent that the 2003 White Paper contained few references to the 1998 Green Paper, and no references to the Ottawa Charter or other developments identified with the health promotion movement. Accordingly, the 2003 White Paper paid little attention to the determinants of health, the structural conditions for health were hardly mentioned, the epidemiological orientation was evident and attention was dominated by healthy lifestyle issues at group and individual levels.

The above experience does not mean that the turn in government public health policy in Phase 3 was complete. The focus on social inequalities in health that emerged during Phase 2 remained at least a token priority in the White Paper of 2003, even if seldom addressed. Reducing social inequalities in health is one of the overall objectives of the Paper. The reduction of social inequalities in health is identified in Phase 3, as in earlier phases, as a responsibility for all sectors of society.

**Phase 4: 2005—A Focus on Equity and Equality**

As a follow-up to the 2003 White Paper, an Action Plan was to be developed that would outline policies and strategies to reduce social inequalities in health. The action plan was published in January 2005 under the title "The Challenge of the Gradient" (Directorate of Health and Social Affairs, 2005). The Action Plan calls for action at various levels of society, but has a clear focus on the structural conditions for social inequalities in health. The Action Plan was developed by the Directorate of Health and Social Affairs, a subordinate institution to the Ministry of Health and Care Services. Health impact assessment is viewed as

an important tool for encouraging cross-sector work in general and for identifying the effect of policies on vulnerable population groups. The Action Plan signalled a renewed politicalization of health issues, but required political support to move into the implementation phase. A general election held in Norway in 2005 produced a leftist coalition government from the autumn of 2005.

The new Government supported the strategies outlined in the Action Plan, and the politicalization trend continued in the White Paper on social inequalities in health released in February 2007. The White Paper, entitled "National Strategy to Reduce Social Differences in Health", has a 10-year perspective for developing policies and strategies to reduce health inequities.

One main point of the White Paper is that "equity is good public health policy." This implies a view on public health policies that aims at a more equal distribution of positive factors that influence health. The White Paper outlines strategies for action in many areas and sectors of society to reduce social inequalities in health:

- Reduce inequalities in income;
- Secure equal opportunities for development for all children, regardless of their socio-economic situation;
- Develop an inclusive work-life;
- Reduce social differences in health behaviour and use of health services;
- Improve living conditions for vulnerable groups.

**DISCUSSION**

An analysis of the four phases distinguishes "medicalization" and "politicalization" as two broad health policy process types (Starr & Immergut, 1987). Medicalized health policy processes are dominated by the medical guild, not only within its area of professional competence, but also in the setting of priorities among public health strategies. Medicalization dominated post-World War II European health policy up to the 1960s. On the other hand, politicized health policy processes relocated the locus of control away from the medical guild to the public agenda dominated by other guilds in the social science and economic professions. This was the situation in Norway from the 1960s.

Health promotion, understood as the strategies of the Ottawa Charter, is clearly tuned to the forces of politicalization, which enjoyed a high profile in Norwegian policy in the period from 1984 to 2002. In contrast, the 2003 White Paper reintroduced a substantially medicalized policy, but not to the exclusion of key structural strategies that emerged during the period of politicalization. Through all the phases, disease prevention proponents have managed to develop and maintain a respectable profile *vis-à-vis* the clearly dominant curative domain, and health-promoting structural interventions are today identifiable features in most public sectors.

Overall, other voices have chosen to emphasize citizens' personal responsibility for their own living conditions, lifestyles, and subsequently their health. Over the last decades, these voices have become more strident in their criticism of welfare state ideology and institutions. Increased economic liberalization, which implies a retreat of the state and increased freedom of the market, has grown to dominance in most parts of the world. Policies supporting economic liberalization have been put into practice in many countries, and have had significant effects on living conditions and the health of vulnerable groups.

The prime example, perhaps, is the UK during the Thatcher period and Canada during the 1990s. During the Thatcher period, the reduction of a whole line of welfare policies resulted in an increase in social inequalities, as documented in the Black Report from 1980 (Whitehead *et al.*, 1992). In Canada, a broad consensus on health policy developed during the 1980s, expressed in the Ottawa Charter for Health Promotion, and the framework for achieving Health for All in Canada set an agenda for a holistic and intersector approach to health (Stachenko, 2001). In the 1990s, this development was reversed. The pressure on restructuring and "downsizing" federal government had increased (O'Neill *et al.*, 2000). Other broad contextual barriers were cited, especially the lack of sufficient human and financial resources to pursue further an aggressive health promotion strategy (O'Loughlin *et al.*, 2001).

There are strong arguments that the present Norwegian policy is a product of a social democratic policy and a social democratic government. These swings back to the "left" are supported by recent scholarship showing how socio-economic, political and cultural variables are the most important factors in explaining health levels within a population. A key finding is that countries and regions with more evenly distributed economic resources (such as income and employment) and social resources (such as health care, education and family support services) have better results on numerous health indicators (Navarro *et al.*, 2003). Further, the evidence shows that universal redistribution policies are more effective in improving population health than are programmes specifically targeted at reducing poverty (Navarro *et al.*, 2003). In other words, the weight of recent evidence supports the conclusion that the social democratic welfare state ideology provides the social and economic conditions required for effective health promotion.

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# CHAPTER 10

# The Ecology of Health Promotion

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**Abstract:** The final chapter brings together the contributions from all chapters, highlighting how effective health promotion depends on reaching the settings in which people live, and understanding the processes of human interaction in these settings. The chapter starts with an analysis of how international conventions and agreements about health actions (such as those mentioned in chapter 5 and 7) may influence national policies, and how these are implemented in settings at local levels as discussed in chapters 3, 4, 6 and 7. The chapter goes on to analyse how implementation of such actions at national and international level influences the significant social processes in these settings, and why this influence may result in positive changes in health behaviour and health. The chapter concludes with a discussion of how systems theory may help to understand how social processes and settings at different societal levels are linked, proposing an ecological systems model of health promotion including all five principles of health promotion action as outlined in the Ottawa Health Promotion Charter.

**Keywords:** Health promotion, health, well-being, Ottawa Health Promotion Charter, settings, social processes, ecological approach, community approach, international conventions, national policies, implementation, system theory, ecological systems model.

## INTRODUCTION

This chapter brings together the contributions from all the other chapters, highlighting how effective health promotion depends on reaching the settings in which people live, and understanding the processes of human interaction in these settings. The core issue is the understanding of how to enable and sustain the positive development of health at individual, community, national and global levels.

As suggested in the previous chapters, today's health promotion advocates a whole community approach to health improvement, as Fig. (**1**) illustrates. Community is in this sense defined loosely, and includes social elements ranging from individuals to large, complex structures such as health and social welfare delivery systems. The figure emphasises the systems nature of community, and the importance of multi-level processes that society sets into motion, to maximise peoples' opportunities to practice critical autonomy in daily living.

Accordingly, health promotion research is very taken up with the study of how multi-level processes can produce better psychological, social and physical functioning, but not as ends in themselves. As Fig. (**1**) shows, this conception of health promotion is one in which there are multiple pathways to better health and functioning. These paths are not independent, but rather are linked systematically and purposively to produce community conditions that support flourishing.

Very importantly, this is not the result mostly of professionals' planned actions, but the natural result of community member's efforts to organise living conditions and styles to support happy, productive meaningful lives for all. Health promotion's contribution has been to point out that the health care system, on the right of the diagram, cannot alone either protect, or be held responsible for, the health status of the

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community. The main determinants of health are beyond the sole control of the health care system, just as they are beyond the sole control of individuals.

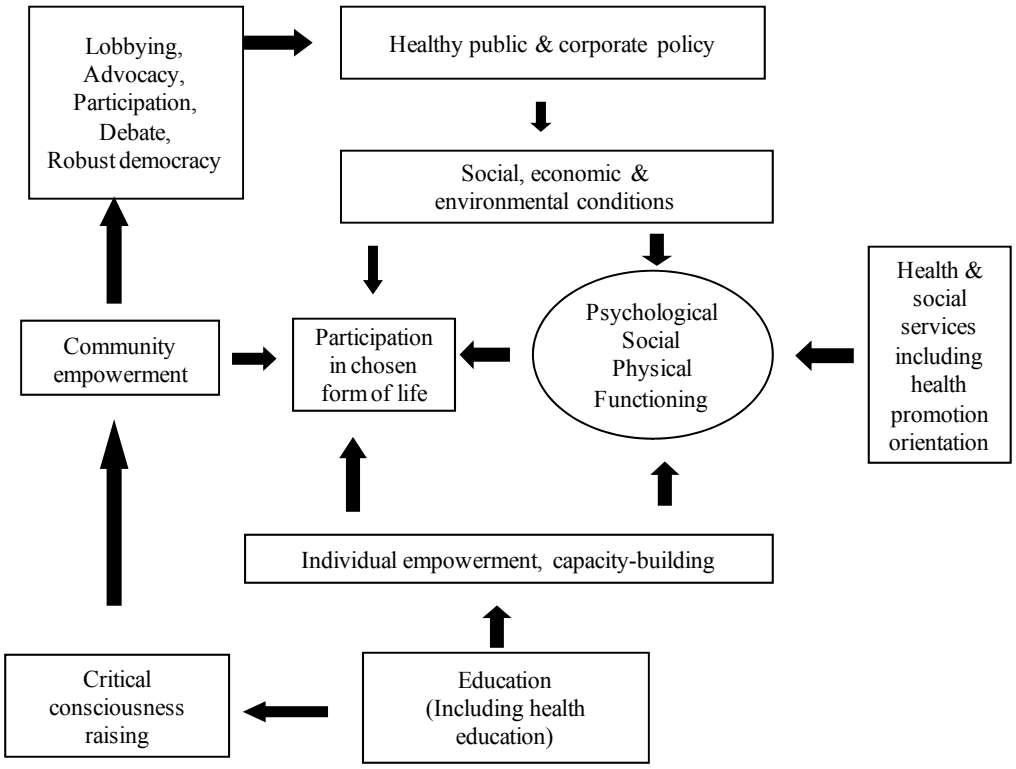


**Figure 1:** Whole community approach to health promotion[1].

With regard to determinants of healthy public and corporate policy as depicted in the upper section of Fig. (**1**), chapter 9 discussed how international, historical and political forces have influenced national public health policy in Norway. In this country, health promotion is intrinsically linked to the welfare state, which to a large extent seems to have been a political matter under left wing government with high priorities on improving social, economic and environmental conditions, and securing the conditions for healthy psychological, social and physical functioning in the arenas of employment, housing, education and health services. To some degree this development may be considered the result of a top-down process. However, the very core of health promotion is the existence and nurturance of a robust democracy, allowing open debate, participation and advocacy at all societal levels. Such a democracy guarantees that bottom-up processes may occur by ensuring that critical consciousness raising takes place at the individual level (micro level), empowering communities to act upon the concerns and suggestions of their members, and to lobby and advocate their views at the macro level, as illustrated in the bottom and middle section of Fig. (**1**).

Several chapters of this book exemplify how these top-down and bottom-up processes occur. Chapter 4 discusses the translation of the Norwegian national health promotion policy to municipality level actions. The analyses of the implementation of two nation-wide health promotion programmes aimed at integrating health promotion into the social welfare and health agendas of the municipalities, suggested a dilemma. Projects aimed at integration in local government administration were found to be more successful than projects aimed at empowering local communities. It seems that a system level approach is more effective

[1] Adapted from models by Tones and Tilford (2001, pp. 49-55) and Doyal and Gough (1991, pp. 170).

than a community setting approach with few steering points. This represents a dilemma as health promotion aims at stimulating community setting approaches and involvement of their inhabitants. Following again Fig. (**1**), this highlights the importance of capacity-building and critical consciousness-raising to stimulate efficient community empowerment. Such processes can be stimulated through educational approaches, not only through the schooling system, but also through the health services and other community services, including non-governmental organisations. The educational approach can thus be seen as a top-down prerequisite for a well-functioning bottom-up initiative, again pointing to the crucial interplay between top-down and bottom-up processes in health promotion. The challenge seems to be how we can stimulate bottom-up processes without steering or initiation from a top-down approach.

As suggested by Thuen and Mortensen in chapter 5, family welfare is considered a public responsibility in the Scandinavian countries, rather than placing emphasis upon private providers as is often the case in the US and UK. The role of the national authorities encompasses two main features: placing couple relationships on the political agenda, and funding the development and implementation of various measures to improve couples' functioning. Thus, a top-down process seems to take place. Similarly, Samdal and Torsheim (Chapter 6) describe a top-down process with the implementation of the European Network of Health Promoting Schools in Norway. As is often the case, this initiative came to the schools from the national Ministries, which in turn had been approached by international organizations. The national top-down process, however, had a clear intention of stimulating bottom-up processes at school level by encouraging schools to develop approaches to integrate health promotion in the daily life of school. As was addressed in Chapter 4, the question of whether this can be considered a school community empowerment process when the schools themselves did not initiate the process remains to be answered. In chapter 8, Wold gives another example of how schools and students are influenced by top-down processes as a result of international and national actions in tobacco control and physical activity promotion.

These examples of top-down approaches to health promotion may suggest that macro level policy seems to influence individuals more than vice versa. The mechanism by which the top-down approach may influence psychological, social and physical functioning at the individual level is probably related to the influence of social norms, as suggested by Aarø and Flisher in Chapter 3. Norms may be considered the bridge between the social context and the individual. Legislation and international conventions with relevance to public health are examples of formalized norms that may be regarded as shared expectations about what is commonly accepted and wanted in terms of psychological, social and physiological functioning of individuals, or social, economic and environmental conditions in communities and nations, as illustrated in the middle section of Fig. (**1**). Norms help to create social order in our society because they set the standards for human interaction, and norms work because they are located within the individual as well as in the social context.

Furthermore, norms are developed through processes of interaction and communication between the individual, significant others and groups of individuals. Thus, the development of norms is a two-way process; they are often initiated from individuals and/or groups of individuals at the micro system (bottom-up), and may become part of the macro system, sometimes as formal laws. Thereafter, laws and regulations influence the norms of individuals. One example of this process is the effect of bans on smoking, which have changed the public's expectations of whether smoking is acceptable, and even more so, where it is acceptable to smoke.

According to health promotion ideology, empowerment and sense of ownership at the community and individual level need to be fostered in order for positive change to happen. In this context, norms may be applicable as the perceived importance of taking responsibility and contribute to the development of societal processes of importance to the individual as well as the community will be crucial for the actual actions that take place. In addition to norms, knowledge about other social processes may stimulate critical consciousness raising, capacity building and empowerment at individual and community levels. Education,

both general and health specific, has traditionally been considered the most viable means to influence individual and public health, as also illustrated in the lower section of Fig. (**1**). Firstly, education has a large potential to raise public awareness about health issues, thus raising consciousness. Secondly, education can also stimulate empowerment by disseminating strategies and advice on how to deal with health issues, to individuals, groups of individuals, or even communities. Thirdly, education is likely to affect social norms.

One of the most complex issues in health promotion is the question about which are the "good" norms. Who is to decide which ways of living are healthier and more acceptable than others? Clearly, norms are based on the underlying cultural values. Such cultural values may differ dramatically between communities and even subgroups in communities, as can be seen in studies comparing different immigrant groups to natives in a country. The norms of the dominant population group usually take precedence over those of the minority groups. Thus, interventions aimed at improving health by targeting certain minority groups may result in unwanted and unforeseen side effects, making them more harmful than good for the people in the community. It has even been argued that interventions in developing countries applying theories and models based on Western ideology and norms, have actually hindered HIV prevention in the developing world. There is an increasing awareness that theoretical models developed in affluent societies, such as the Theory of Planned Behaviour or the Social Cognitive Theory, may not translate very well to other societies and cultures. This question also raises concerns about the underlying values of health promotion, and points to the significance individualistic versus collective values may play in establishing what the good norms are.

Although the influence of the social context and norms has long been addressed at theoretical and ideological levels in health promotion, researchers in the field are still struggling to incorporate these influences in their studies. As mentioned by Aarø and Flisher in Chapter 3, in spite of a rich literature on school-based health education programs, there has been little research on how the social and physical context of schools or communities affect individual health and development. Similarly, studies of workplace health promotion have tended to focus on personal determinants rather than the nature of the work environment. Thus, research on health promotion can be criticized for having been too narrow in its scope, not doing justice to the complexities depicted in Fig. (**1**).

During the period since the end of WWII, social and behavioural scientists, including public health and health promotion researchers, have tended to be more concerned with maximising the internal validity of studies than with maximising external validity. Internal validity is confidence in a study's findings; external validity is confidence that the study can be replicated. Frustratingly, study designs that maximise internal validity do less well with external validity (and *vice versa*). In an intervention study, attribution of an outcome to the intervention requires controlling for all other factors that might influence the outcome. Highly controllable laboratory studies can manage this well, while studies in community settings do less well. Nevertheless, much advancement in study design, such as the development of quasi-experimental designs, has made it more and more possible to 'control away' bothersome extraneous variables.

Yet, this methodological sophistication seems to have hampered scientific progress in important ways. Tightly controlled field studies suffer from external validity problems. An intervention that proves effective under carefully controlled conditions is somewhat artificial because it ignores – or at least tries to control for –context. The same intervention, implemented in other settings, might not produce the same effects, due to differences in context. In fact, public health and health promotion intervention research is plagued by this problem.

The Danish philosopher Flyvbjerg has highlighted this problem, claiming that social and behavioural sciences could make a better contribution to society by recognising that context matters and should not be controlled away, but studied in its own right. He goes so far as to claim that "context is central to understanding what social science is and can be" (Flyvbjerg, 2001, pp.9). Flyvbjerg summarises what the social and behavioural sciences need to do to advance: (1) stop emulating natural science's methods, (2) focus on issues and values that matter in communities (be practical), and (3) communicate what we learn to

the world around us. This is a recipe calling for a shift in what we think of as doing 'good science'. Traditional quantitative methods need to be augmented by qualitative methods, to enable the study of social and behavioural phenomena in context. The recent evolution of mixed-methods research strategies is a positive development, as is the emergence of a pragmatic philosophy replacing stiff stances about what is 'right' thinking and what is 'good' science.

## CONCLUSION

Only when the whole system of living is engaged can health and functioning be optimal. Individuals do have responsibilities and education and training can build individuals' capacities to make choices that maximise critical autonomy. The health care system does have a key role to play, by orienting its resources to address simultaneously treatment, prevention, and health promotion. Homes, schools, workplaces, recreation centres, churches and agencies of government such as public safety and education do have vital roles to play, in providing a supportive environment; it is in a community's settings where people live most of their waking hours. Social groups such as advocacy groups, political parties and special interest groups do have an irreplaceable role to play, as they influence the public agenda, and through it, they can influence policies that support health in all social sectors.

Developing knowledge about ways communities can promote their own health is the job of health promotion researchers. The model of health promotion in Fig. (**1**) shows clearly that the multi-level processes that shape health are beyond the interests and expertise of the health disciplines. Health promotion research is therefore intensely inter-disciplinary. Health psychologists and educators work at the level of individuals, small groups and formal settings, clinical and public health and social researchers work at various levels of the health and social welfare systems, policy analysts work at the macro levels of community organisation. All are obliged to take a systems view and respect the complexity of health processes, for everything is connected to everything else.

In this book, all these levels of research are represented. The models and research methods vary with disciplinary preferences, but a common language and framework is provided by health promotion. They are gathered in research centres all across the globe, health promotion researchers struggling to make contributions to their respective disciplines and to the collective we call health promotion. They bemoan the fact that they don't work well enough together, yet that they manage to work together at all is a miracle of determination. They make professional sacrifices along the way, for their disciplinary homes never quite forgive them for their wandering ways.

Based on experiences and findings from our long term health promotion research we have in this chapter proposed an ecological systems model of health promotion Fig. (**1**), including all five principles of health promotion action as outlined in the 1986 Ottawa Charter for Health Promotion: build healthy public policy, create supportive environments, strengthen community action, develop personal skills, and reorient health services. Further, we have argued that the social order created by norms seems to determine the extent to which the healthy choices are made the easier choices. The development of health promoting norms through bottom-up and top-down processes illustrates the interplay between micro and macro level factors, and suggests that a healthy individual life goes hand-in-hand with a good and nurturing society. The future challenge for health promotion research is to study and debate the values underlying the norms, and to examine how a robust democracy can be formed and maintained through individual and community empowerment.

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