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144

Sami Kokko

# Health Promoting Sports Club

## Youth sports clubs' health promotion profiles,guidance, and associated coaching practice, in Finland

JYVÄSKYLÄN YLIOPISTO

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UNIVERSITY OF JYVÄSKYLÄ

JYVÄSKYLÄ 2010

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To my family – Piia, Ella, Elias, Enni

# ABSTRACT

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This study was composed in two stages. The purpose of the first stage was to create the frame of reference and to determine the most relevant standards for the health promoting sports club (HPSC). The second stage was aimed at reviewing youth sports clubs health promotion profiles, and clubs' guidance and coaches' implementation activity in health promotion. Also, differences between separate informants and club-based background variables, as well as associations between the clubs health promotion profile, guidance activity and coaches' activity were examined.

Initially, a literature review was executed, followed by a Delphi Study. During three rounds of the Delphi, 27 specialists (health promotion [n = 11] and sports club activity [n = 16]) evaluated a total of 81 standard proposals. At the second stage, a questionnaire-based Sports Club Survey was conducted. A total of 97 out of 120 (81%) sports clubs from four predominant youth sports in Finland participated. The data consists of the answers of 273 sports club officials, 646 male athletes (14 to 16 years old) and 240 coaches. Basic statistical methods such as cross tabulation, Spearman correlation coefficient, and Chi-square test were used. Also, more sophisticated methods, such as factor analysis and logistic regression were used.

As a result of the Delphi Study, the 15 most relevant standards for the HPSC were identified. When comparing these 15 standards with the Ottawa Charter's five key strategic areas, some important goals of health promotion were missing. Hence, the researcher added seven more standards resulting in the presentation of a tentative typology of 22 standards.

The results from the Sports Club Survey indicated that Finnish youth sports clubs were fairly health promoting by their orientations, measured by the Health Promoting Sports Club Index (HPSC Index). They fulfilled an average of 12 standards out of 22. However, variation between clubs was wide; every fourth club was classified as "higher health promoting" and every third as "lower". Of the background variables, the clubs that held the certification by the Young Finland Association were almost two and a half times more likely to recognize health promotion at a higher level than the other clubs. Regarding guidance activity, the clubs were rather active considering sports performance, but less active, even passive, concerning non-performance time and various health topics. Some important health behaviour-related issues like nutrition, substance use and doping prevention were extraordinarily infrequently addressed. An association was evident between the club's health promotion profile and guidance activity: the clubs that were categorized as higher health promoting were about three and a half times more likely to guide their coaches in active ways on health promotion concerning sports performance, and six and a half times more likely concerning non-performance time and health topics, than other clubs. The coaches' health promotion activity was rather high when evaluated by the coaches themselves. Young athletes perceived the coaches' activity much more passive; e.g., when almost half of the coaches stated that they had been active concerning tobacco and snuff, only about 15 % of the youths agreed.

Previous research has shown that youth sports club activities have both positive and negative effects on the health of children and adolescents, but positive contributions are not automatic. This study demonstrated that clubs' health promotion orientations and guidance activity are focal elements to improve health promotion activities within youth sports clubs. Thus, it can be recommended that to reach wide-ranging, active and systematic health promotion at both policy and practice levels, club-level setting-based development is needed first.

Keywords: Guidance Activity, Health Promoting Coaching, Settings Approach, Standards, Health Promotion Profile, Youth Sports Club

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There are several parties and persons who have had an affect on the final result of this dissertation. Hopefully I remember to give my warmest compliments to all of those appropriate. Thus, I decided to briefly go through my path from a child to the present day – this is my story.

I was born in Helsinki, Finland on 5th of June 1973. In my early years' the influential persons were naturally my birth family. I wish to thank you for creating a secure and stimulating home setting to grow. As for many other boys, school was not a priority of interest for me, I was interested in sports. Still, I now realise that all the teachers did good work and something was learned, even if unconsciously, my compliments to all of them.

As mentioned, I have been interested in sports from the beginning; I have played soccer, bandy, basketball, ice hockey and jumped pole vault, just to mention the most important disciplines. Sport and especially ice hockey became a priority for me during my adolescents. It guided my life in all areas, including education. For example, I got into a sports-oriented high school, because I was a part of the junior national team. During the years in high school, I still wasn't too much interested in studying. Here, I want to thank my parents, Dad Juha and Mom Pirjo, whom were patient enough to remind me of the importance of education. I fortunately believed it and became a upper secondary school graduate in 1993. I also made many friends through sports. I would like to thank all of those, especially thanks to Jere and Timo, you are true friends.

One of the most important turning points in my life happened the same year I graduated from high school, I met my wife Piia. Together with complimenting Piia for staying together with me ever since, Piia was the one who guided me in my further studies. Thanks to her, I even became aware of Physical Education Instructor studies, which I completed at the Finnish Sports Institute, Vierumäki during the course of 1994-1997. During the studies at Vierumäki, I also started to realize the importance of education and for the first time enjoyed it. I felt that I had found my area of interest. I received good teaching and I want to thank all the teachers in Vierumäki a lot. I wish to express my special compliments to Director Matti Kauppinen, who wrote a letter of encouragement to all the graduates. In my letter he encouraged me to apply to university. That was a first time, when I even considered it myself.

After Matti's letter, it was again Piia whom I have to be grateful in realizing this goal. Piia was the one who found the discipline of health education at the University of Jyväskylä and advised me to apply. I did, and got in 1998 and graduated as a Master of Science in Health Sciences at early 2003. I wish to thank all the teachers who educated me during the master studies. The studies gave me a strong foundation in the field of health promotion and education. Together with my time at the university, I also finished my ice hockey playing career. Right after that I coached for one year in Kajaani (Hokki 1999-2000) and operated as head of coaching in Jyväskylä (JYP HT Juniors 2000-2003). I am grateful for these experiences, as I found them very helpful when conducting this thesis.

My postgraduate studies started with a funny episode. At the last meeting with my master's thesis supervisors, Professor Lasse Kannas and Ph.D. Jorma Tynjälä, Lasse raised a question and asked my interest about the doctoral studies. At that time, I was totally tired of research, because I had just finished my master's thesis, and I said "no I am not interested". Fortunately Lasse did not give up that easy, and after some time, he contacted me again and offered me a position at the university, which I gladly accepted.

By that time, my interest towards doctoral studies was also awoken. The preliminary work of this research started in 2003 and in earnest in 2004.

At the first steps of my doctoral studies and research, I explored youth sports club activities from the perspective of sports sociology. I here wish to thank Professor Hannu Itkonen, who gave me an insight into youth sports and sports club activities during his lectures and also contributed as co-author in the first article of this dissertation. As the pieces of the health promoting sports club idea started to gather, I had many productive brainstorms with my colleague M.Sc. Mika Vuori, my compliments to you Mika of all the inspiration I got from these occasions. The first empirical stage of this study was the Delphi Study. It would not have been possible without the experts, and I wish to thank all of the participated experts. As for the Sports Club Survey, I received invaluable help from the national federations of the sports disciplines that I studied, and especially their current heads of junior activities. I wish to thank the Football Association of Finland and Timo Huttunen, The Finnish Ice Hockey Association and Eero Lehti, the Finnish Ski Association and Timo Rautio, and the Finnish Athletics Association and Marko Ahtiainen. Again without participating sports clubs this study would not have been possible. I wish to thank all the 120 clubs, all the respondents, and especially clubs contact persons, you surely had a toilsome position, and I very much appreciate your efforts.

I wish also to thank BA Markku Tuomi and M.Sc. Eileen McEvoy for assisting the language of the second article of this dissertation. My warmest compliments to M.Sc. Marietta Gates and M.Sc. Michael Ormshaw for their help on the language of the third and fourth article, and this dissertation. In addition, my compliments to M.A. Pirjo Koikkalainen for finalizing the layout of the dissertation, and Professor Harri Suominen to edit it.

During this research process, I have had the possibility to co-operate with several sports, health and research communities, and this co-operation has had many contributions to this study; my compliments to all the persons involved. I wish to express my special acknowledgements here to Hannele Hiilloskorpi, Kirsi Hämäläinen, Leena Kaivola, Kari L. Keskinen, Eero Lehti, Leena Nieminen, Pekka Nikulainen, Hannele Nykänen, Pekka Oja, Jari Parkkari, Ari Piispanen, Pulmu Puonti, Jorma Savola and Tommi Vasankari. I hope the co-operation continues in the future.

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The most important and influential person behind this study has been my supervisor, Professor Lasse Kannas. I first met Lasse in Kokkola, where I was playing ice hockey and Lasse was giving a lecture for the Open University of the University of Jyväskylä, which I was attending. At that time I had a knee injury and I was walking with crutches, the mutual interest in sports and health promotion was instantly generated. Thereafter, I have had several other reasons to be grateful to Lasse. He has, for example, given me the inspiration to become a researcher and conduct this study and doctoral studies, offered me an opportunity to work at the university and given valuable feedback and various contributions concerning this dissertation. Lasse your way of acting is intellectual, sophisticated and dignified – something everyone could learn from, I have enjoyed every minute of working with you. Another important person in our study group has been M.Sc. Jari Villberg, whose statistical expertise has been most valuable, thank you Jari for fluent and pleasant co-operation.

I would also like to express my gratitude to the reviewers of this dissertation; Associate Professor Lawrence St Leger and Adjunct Professor Pasi Koski. Thank you for valuable comments and contributions which really helped me to finalise this dissertation. I would like to give my special compliments to you Pasi. It has been my pleasure to co-operate with you on many occasions, ever since we first met in Tuusula 2004 and hopefully also in the future.

Finally, I would like to dedicate this dissertation to my family. Every time this research inflicted pressure and stress on me you have given me something else to think about. I have learned that this is just a piece of research, nothing more, and nothing less. Piia, Ella, Elias and Enni, you mean everything to me.

## FIGURES



## TABLES

## LIST OF ORIGINAL PUBLICATIONS

The thesis is based on the following papers which will be referred to in the text as Articles I-IV:

I Kokko S, Kannas L, Itkonen H. 2004. Urheiluseura lasten ja nuorten terveyden edistäjänä. (Sports club as a setting for health promotion of children and adolescents). Liikunta & Tiede, 41 (6), 101-112.

II Kokko S, Kannas L, Villberg J. 2006. The health promoting sports club in Finland – a challenge for the settings-based approach. Health Promotion International, 21 (3), 219-229.

III Kokko S, Kannas L, Villberg J. 2009. Health promotion profile of youth sports clubs: club officials' and coaches' perceptions. Health Promotion International, 24 (1), 26-35.

IV Kokko S, Kannas L, Villberg J. 2009. Health promotion guidance activity of youth sports clubs. Submitted.

## ABBREVIATIONS

| | |
|---|---|
| CCHPR | Canadian Consortium for Health Promotion Research |
| FIHA | The Finnish Ice Hockey Association |
| HIPP | Health in Prison Project |
| HP Expert | Health Promotion Expert |
| HPH | Health Promoting Hospital |
| HPP | Health Promotion Profile |
| HPS | Health Promoting School |
| HPSC | Health Promoting Sports Club |
| HPSC Index | Health Promoting Sports Club Index |
| HPU | Health Promoting University |
| IUHPE | International Union for Health Promotion and Education |
| OR | Odds Ratio |
| SC Expert | Sports Club Expert |
| SLU | Suomen Liikunta ja Urheilu (Finnish Sports Federation) |
| Svoli | Suomen Voimisteluliitto (The Finnish Gymnastics Federation) |
| VOK | Valmentaja- ja ohjaajakoulutuksen kehittämishanke (The Development Program for Coaching and Instruction Education) |
| WHO | World Health Organization |

## CONTENTS

# 1 INTRODUCTION

Sports clubs are prevalent leisure-time settings for children and adolescents in many countries. In Finland, club activities reach almost half of the youth (SLU 2006a; Vuori et al. 2007). In addition, club activity, especially children and adolescents related, is the largest form of voluntary civil activity in Finnish society. Owing to the significant societal position and wide accessibility, demand for youth sports club activities is widespread. Despite the fact that the main function of youth sports clubs is organizing physical activity and the emphasis is on sports, many expectations beyond sports exist, for instance parents have their own expectations. Many authorities have also acknowledged that the sports sector at all levels should recognise its share, for example, in public health. At the same time, sports federations and clubs themselves have determined that the objectives of club activities are broader than just organizing or concentrating on sports. For example, The Finnish Ice Hockey Association (2009) points out that apart from sports-related goals, the main function of youth club activities is to develop decent citizens with healthy self-esteem, proper social skills and sporty lifestyle. Indeed, 81% of Finnish youth sports clubs declare that healthy lifestyle is one of the main goals of their activities (Koski 2009). On the other hand, when sports club activities in Finland are based on voluntary civil activity, one can ask, what is the capacity of the clubs and voluntary working coaches to meet all these demands?

In any case, these health-related goals have not, so far, reached the ultimate target group, as two Finnish nationwide surveys; Health Behaviour in School-aged Children (HBSC) and The Adolescent Health and Lifestyle Survey (AHLS) indicated at the beginning of the present millennium. The studies undermined the myth of sports clubs' automatic positive contribution to children's and adolescents' health behaviours. Still, youth who participate in sports club activities are more physically active and smoke less than their non-participating peers, but negative aspects such as, heavy drinking and oral snuff use among the youths participating in sports club activities were also found (Kannas et al. 2002; Rimpelä 2000). These research findings raised the question to what extent youth

sports club activities educate children and adolescents towards a healthy lifestyle and are therefore health promoting.

Youth sports club activities have a lot of potential in the area of health promotion as will be demonstrated in this thesis. A club is more than a place for physical activity; a youth sports club is a setting in which children and adolescents are influenced by the people within that setting and receive advice on many health issues. Still, health and especially health promotion has been studied less in this context, and when studied, the main focus has been on injury prevention or different kinds of interventions in which sports has been used externally as a vehicle to execute prevention on some specific health topic such as alcohol use (Werch et al. 2003) or eating disorders (Abood & Black 2000; Elliot et al. 2004).

Some research has been done in the sports clubs, in the health promotion context, in Australia and the UK. In Australia, the Good Sports Program was launched in 2001. The program aimed to develop and evaluate the prevalence of sports clubs' alcohol use and misuse prevention policies and practices (Duff & Munro 2007). In Australia, the prevalence of sports clubs health promotion policies has also been studied under five health topics: smoke-free facilities, sun protection, alcohol management, healthy catering, and injury prevention (Dobbinson & Hayman 2002; Dobbinson et al. 2006).

In the UK, the Healthy Stadia Concept was established at 2004, based on the idea of sporting arenas as health promoting settings. The Healthy Stadia is determined as "...one which promotes the health of visitors, fans, players, employees and the surrounding community. It is a place where people can go to have a positive healthy experience playing or watching sport" (Crabb & Ratinckx 2005). In the pilot study of the Healthy Stadia Concept the following health topics were examined: smoking, healthy eating, green transport, community liaison, alcohol advertising, mental health and physical activity.

The Health Promoting Sports Club (HPSC) concept views a sports club as a health promoting setting in which various health issues are considered with multi-level activities, and the main approach for this concept is the settings approach to health promotion. It is based on the idea that peoples' health and health behaviours can be influenced in a more effective way by targeting health promotion actions on settings, not directly on individuals (Whitelaw et al. 2001). Individuals' health is the eventual goal, but the approach primarily strives to develop organizational culture and ethos concerning health related issues. Settings are seen not only as physical environments, but also as social contexts in which environmental, organizational and individual factors interact with each other and in this way influence individual and communal health (IUHPE and CCHPR 2007). For example, the management culture in youth sports clubs has influences on how health issues are considered within its activities. In this thesis, sports clubs are seen as physical, but also as social environments in which a whole system of sports club setting, as Dooris (2006) names it, is recognized and examined.

Settings approach has been hitherto used in several settings, such as city/community (Healthy City), healthcare, hospital (Health Promoting Hospital), school (Healthy or Health Promoting School), university (Health Promoting University) and even prison (Health Promoting Prison), but only rarely in leisure time environments like sports clubs. Due to limited amount of scientific evidence in the field of this thesis, and without a clear concept of health promoting sports

club, this study was initiated by creating the frame of reference for the concept. This was simultaneously the first aim of the study, and the constructed theoretical framework guided the forthcoming stages.

The aim of the first empirical stage of this study was to determine the most relevant standards for the health promoting sports club. Using the Delphi method, the researcher, in cooperation with a panel of experts, sought to formulate a consensus statement on the most relevant standards. The purpose of the standards was to describe the key elements and activities of health promotion within youth sports clubs. In other words, if a sports club elects to emphasize health promotion or healthy lifestyle as an important factor in its activities, it should also consider the facts or at least some of the facts that are mentioned in the standards. The realization of the standards was examined in the following stage.

The second stage of the study was conducted through the Sports Club Survey. The aims of the survey were: first, to profile youth sports clubs' general health promotion orientation; second, to study to what extent youth sports clubs guide their coaches to recognize health promotion as part of the coaching practice; and third, to clarify the frequency of coaches' health promotion implementation. Health promotion orientation was studied in contrast to health promoting sports club standards previously created, and clubs' guidance and coaches' implementation activity by question-batteries derived from the standards.

As an outcome, this study establishes a new and innovative concept of the Health Promoting Sports Club. This concept consists of standards and indicators to develop and evaluate the health promotion activities of youth sports clubs. The validity and reliability of the research instruments was also tested, and using these instruments the study describes the current situation of health promotion activities within Finnish youth sports clubs.

In addition, the concept offers elements and results for the development of practical tools to be used by youth sports clubs and coaches to implement health promotion as part of their activities. The study will benefit researchers, sports federations, clubs, coaches, and the youth. The concept of the Health Promoting Sports Club can be adapted by Finnish sports clubs but also internationally with a notion of taking national and local characteristics into account.

# 2 HEALTH PROMOTION WITHIN VARIOUS SETTINGS

## 2.1 Foundations of health promotion

Health promotion is a multi-level concept and not explicitly determined. The determinants of health and activities executed under the "label" of health promotion vary from global to local and to individual level. The attributes and characteristics of different settings vary to the same degree.

MacDonald (1998) pointed out that health promotion in some form has existed even in the Hippocratic tradition from 600BC to AD200. Modern health promotion, however, is usually traced to the Lalonde report of 1974 (Glanz et al. 2002, Tones & Green 2004). Before the Lalonde report, health promotion was generally seen through biomedical and epidemiological orientations and by means of health education. This meant that diseases and people's health behaviours were at the centre of the concept. Prevention of infectious to chronic diseases that lead to e.g. decreased functional capability, higher risk of morbidity and mortality or increased healthcare costs was the mainstream (Glanz et al. 2002). The starting point for action was a particular disease and prevention started by determining its risk factors, attempts were then made to prevent these risk factors, usually through individual health behaviours which were mediated through individual factors (Potvin et al. 2005).

Although, health education was previously seen quite narrowly as means of influencing individual health behaviours, it has also been determined to relate to organizational efforts or policy-level actions (Glanz et al. 2002). However, it can be said that the way of seeing health promotion from a wider perspective was instigated in the Lalonde report, and a concept of health promotion was revisited. At that time, social and environmental determinants of health were acknowledged (Lalonde 1974, Tones & Green 2004). Simultaneously, the health education course started to broaden from individual behaviours towards social determinants of health (Glanz et al. 2002).

Globally, a trail-blazing statement for health promotion was the Ottawa Charter of 1986. The Ottawa Charter was a declaration of the first world conference for health promotion held in Ottawa, Canada. The charter determined:

> "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" (WHO 1986).

Despite some critique of health as a complete and unchanging state, the effects of the Ottawa Charter on the whole field of health promotion have been evident. Kickbush (2003) for example argues that after the Ottawa Charter, the focus in health promotion started to convert from traditional problem and risk factor oriented approach to environmental factors. Several charters or statements (Adelaide, Sundsvall, Jakarta, Mexico City and Bangkok) have followed the Ottawa one. de Leeuw et al. (2006) argue that the Ottawa Charter generated grounds and highlighted the most important principles and activities and the subsequent charters refined the details; the Bangkok Charter for example was a step for health promotion towards the global world (Porter 2006). The most recent international statement came out at the end of the Vancouver World Conference for Health Promotion (IUHPE and CCHPR 2007), and many of its statements rely on the Ottawa Charter. The strongest emphasis of the Vancouver statement is from principles and theory to practice. This statement defines health promotion as follows:

> "Health promotion aims to empower people to control their own health by gaining control over the underlying factors that influence health. The main determinants of health are people's cultural, social, economic and environmental living conditions, and the social and personal behaviours that are strongly influenced by those conditions" (IUHPE and CCHPR 2007).

Again, the main emphases of this statement are on other than individual factors and different settings-related determinants are underlined. On the other hand, it is not about confrontation between different activities, as World Health Organisation WHO) (2008) points out, "Health promotion, and the associated efforts put into education, community development, policy, legislation and regulation, are equally valid for prevention…" Still, like in science generally, a set of critique has been argued against the modern emphasis of health promotion. For example, concentration on policies, lifestyle and mass population, has been argued (Davison & Smith 1995). Also the current emphasis on a wider perspective that includes political, economic, social and cultural factors and levels creates a confusing situation and strengthens the gap between e.g. individual and society rather than clarifies and diminishes it (O'Brien 1995).

In this thesis, health promotion is seen as portrayed typically: an umbrella concept under which all the activities to improve individuals' and populations' health are executed. For example, concepts like health education, health literacy and various settings are included under health promotion. More restricted concepts relevant to this thesis, such as settings-based health promotion and health promotion capacity building, are determined in detail in the following chapters.

### 2.1.1 The Ottawa Charter – key actions

The Ottawa Charter laid the foundations for modern health promotion. This was done by determining five key strategic areas: 1) Build Healthy Public Policy 2) Create Supportive Environments 3) Strengthen Community Actions 4) Develop Personal Skills and 5) Reorient Health Services (WHO 1986).

Argument for healthy public policies arose from the fact that the determinants of health and also health promotion activities should extend beyond the health sector. The idea is to make health an important issue for all the policy makers from all the sectors. Some years ago, this goal gained more value in the European context in the form of the Health in All Policies ideology (Ståhl et al. 2006).

Healthy environment is due to the complexity of the societies and the fact that people within a society move from one environment to another many times per day. The idea is to influence the environments and make them become more health promoting; thus, environmental health factors are integrated to people's lives, even if they do not recognize it themselves. The goal is to change the environments so that healthy choices would be the easiest and most tempting (Veugelers & Fizgerald 2005). Indeed, the socio-ecological approach has been argued for long (Green et al. 2000) and this is the area that the settings approach mainly rests on.

Communities and community activity are important in health promotion. This means that health promoters' main function is to get people to activate themselves. The key elements here are empowerment, people's ownership and control over their individual and communal health (WHO 1986). Kok et al. (2008) suggest that more and more multi-level programs can be found within the past decade in health promotion.

Personal health-related skills are always necessary; even though health promoters do all kinds of activities, the final decision relies on individuals. For example, whether to take escalators or stairs or to believe an anonymous internet source on some health issue or not. A concept of health literacy connects strongly with this; health literacy is, according to Nutbeam (2000), "a composite term to describe a range of outcomes to health education and communication activities." Health education and health promotion, therefore, attempt to improve individual and communal health literacy. Health literacy consists of health related knowledge, attitudes, motivation, behavioural intentions, personal skills and self-efficacy (Nutbeam 2000). Health literacy, especially the individual as the outcome, could be a goal for health education within sports clubs.

The role of the health sector in health promotion is quite interesting. On the one hand, the main focus in healthcare is on the treatment of illnesses, but on the other hand, more wide-ranging orientation on prevention and promotion has been argued. One example to meet this challenge is the concept of health promoting hospitals (Groene & Jorgensen 2005); the idea of the concept is to integrate health promotion and education into disease prevention, rehabilitation services and curative care.

## 2.2 Settings-based health promotion

"Healthy settings" has become one of the key approaches in health promotion in recent years (Dooris 2004; Orme et al. 2007; Whitelaw et al. 2001). Several different concepts to describe the approach have been used, such as settings-based health promotion or settings approach. Either way, they all describe the same baseline.

The settings approach began to develop intensively after the Ottawa Charter in the mid 1980's. The Charter guided the settings approach by pronouncing: "Health is created and lived by people within the settings of their everyday life; where they learn, work, play and love" (WHO 1986). This definition can be applied e.g. that people learn in schools, work at workplaces, play in sports clubs, and love at home. St Leger (1997) says that the Ottawa Charter justified the settings approach as one of the means for health promotion initiatives.

Previously people's lifestyle decisions were mainly seen as depending on individual choices that were freely made without any influence of the context or living conditions (Aronson et al. 2007). The Charter converted this mindset from traditional problem and risk factor oriented approach to environmental factors i.e. settings (Kickbush 2003). Indeed, the settings approach is based on the idea that changes and development in people's health and health behaviour are easier to achieve if health promoters focus their efforts on settings instead of directly on individuals, for example by influencing the development of an organizational culture and ethos on health (Whitelaw et al. 2001). Individuals' behaviours and possible changes within it remain as the ultimate aim, but there is an orientation to act on a wider front.

One of the strengths of the settings approach is its holistic perspective and understanding of health. As Green et al. (2000) argue, the settings approach provides an ecological perspective with health promotion as the key focus. Health is seen as a resource of everyday life, i.e. salutogenetic perspective (Eriksson & Lindström 2006; Lindström & Eriksson 2006). Orme et al. (2007) have argued a similar wide-ranging perspective to multidisciplinary public health.

The settings approach has been conceptualized in various ways; one of the most illustrative definitions was established when Dooris (2004) separated three key elements of the concept "1) creating supportive and healthy working and living environments; 2) integrating health promotion into daily activities of the setting and 3) recognizing that people do not operate in just one setting and that any one settings impacts outside of itself".

When the above elements are applied to youth sports clubs in Finland, the first focuses on safe and healthy sporting environments e.g. alcohol and smoke-free venues when young athletes are present. The second indicates that health promoting activities conducted through sports should be adapted to sports, e.g. how do substances (alcohol, tobacco, snuff, doping) affect physical endurance, or how can young athletes nutrition be improved by a coach by means of health education? The third means first of all recognition of sports clubs as one key setting for adolescents, and also collaboration between different settings, like school and sports club.

The environmental factors that influence health can be defined and understood through settings. Settings are also instrumental in identifying the frame of reference by which the design and implementation of health promotion

would be maximally effective and observe the particulars of different settings (Mullen et al. 1995; Rootman et al. 2001).

According to Goodstadt (2001), the settings-based approach has two essential dimensions: 1) settings constitute the context within which, and through which health appears and 2) settings offer an effective way to study and understand the determinants of health and to attain and influence individuals and communities. In this thesis, sports club activities constitute the context for the first dimension: where and by which health is manifested. The second dimension relates to sports clubs' potential in health promotion, such as the informal educational nature.

The settings of health promotion vary greatly. There are large and multiform kinds of settings, such as cities or municipalities, large settings but structurally easier to outline, such as health services, and municipally-based smaller entities, such as schools. In addition, there can be found publically independent organizations, such as association (sports clubs), as well as settings for the frame of reference of life, such as home and family. Some settings (school and workplace) have greater significance during one's course of life, depending on the particular stage of life. On the other hand, several settings, e.g. sports clubs, influence how people spend their leisure time (Rootman et al. 2001).

### 2.2.1 Models for settings-based health promotion – application to sports clubs

Whitelaw et al. (2001) have, based on a literature review, created a five-step typology on the models for settings-based health promotion. In the original typology the following models were established: 1) passive 2) active 3) vehicle 4) organic and 5) comprehensive. These models illustrate the position of certain setting (sports club) in health promotion activities, varying from passive settings providing only access to target group, to settings, in which the development in them is the main focus. Kokko & Vuori (2004) have adapted the above models to youth sports club activities.

From the original models, the first (passive model) and the second (active model) can be adapted to sports clubs quite directly. But since sports clubs have been used and health promotion been on the agenda of most clubs to a lesser degree, the fourth and fifth models are too complex to be adapted to sports clubs at this time, but will be assimilated into the third model. Thus, Kokko & Vuori (2004) adapted the first and the second models on the bases of the originals, but reduced the third, fourth and fifth into one (Table 1).

In the first model, the passive education model, the sports club provides an existing channel and a social environment for adolescents' individual-centred health promotion. Health promotion is executed in the form of education, implemented separately from sports, concentrating on specific risk behaviour and conducted by an external expert. Improvement in adolescents' health literacy is targeted.

In the second model, the club based education model, the sports club operates more actively than in the first model. Adolescents' health behaviours remain the primary focus, but environmental factors are recognized and the sports club's task is to execute support measures on the health issues in question. As to these actions, the club can educate its officials, establish guidelines on how to act in certain situations, like in a case of snuff use, ban snuff use in all its events, and co-operate with health professionals.

The third model, the club society development model, differs from the previous ones, as its primary goal (long-term) is to modify sports clubs through changes in the setting. The secondary goal (short-term) remains the same as in the previous models, i.e. to contribute to individual health behaviours. At the first stage of this model, separate health promotion programs are executed; these programs are seen as vehicles through which more profound goals are aimed at. The primary and long-term goal can for example be to make nutrition as a natural part of the everyday coaching practice. The secondary, and at the same time short-term goal, can be the improvement in adolescents' nutrition. In the subsequent stages of this model, attempts are made to effect changes in sports clubs' structures and culture through changes in the operational principles, regulations, and/or established practices. Here, the standards for the health promoting sports club can be helpful to determine key activities to concentrate on.

These models are useful when considering what sports clubs' position in health promotion is, or vice versa, what health promotion's role could be in sports club activities. The models, simultaneously, were used as grounds for further development of the health promoting sports club concept in this thesis.

TABLE 1 Characteristics of settings-based models adapted to youth sports club activities (cf. Kokko & Vuori 2004 ; Whitelaw et al. 2001).

| | **Passive education model** | **Club based education model** | **Club society development model** |
|---|---|---|---|
| **Position of the setting** | Passive, providing access to the target group desired | Somewhat active, carries out supportive actions | Main focus on organizational change i.e. culture and ethos |
| **Characteristics of the model** | Health education oriented, specific risk behaviour, individual targeted and external expert | Individuals as primary focus, measures of support by the club | Primary goal (long-term) on changes in the club operations, secondary goal (short-term) on individual health behaviours, emphasis of activity on environmental factors |
| **Examples of activity** | Specific health education lessons, use of leaflets and other health education materials | Individual-level; support on behavioural change<br>Club-level; education of actors like coaches, guidelines for actions | From single health topic programs to changes in club policies, regulations and operational principles, both policy and practice level changes |

## 2.3 Review of health promoting settings

The construction of the concept of the health promoting sports club was the first aim in this thesis. It was, therefore, important to be acquainted with other concepts and practices in this area. This is why, in the following text, all the traditional and some newer setting-based practices are reviewed in brief. Shared characteristics and setting-specific factors of the traditional plus sports club setting are summarized in Subsection 2.3.6.

Settings-based health promotion approach has been realized in various settings in diverse scopes. The approach has been utilized, to date, in a city context (Awofeso 2003; Baum et al. 2006; de Leeuw 2001), but also within several institutional settings like healthcare/hospital (e.g. Johnson 2000; Johnson & Baum 2001; Naidoo & Wills 2000; Pelikan et al. 2001; Whitehead 2004a), school (e.g. Beattie 2001; Lynagh et al. 1997; Michaud 2003), university (e.g. Dooris 2001; Tsouros et al. 1998; Whitehead 2004b; Xiangyang et al. 2003), workplace (e.g. Chu et al. 2000; Noblet 2003; Peltomäki et al. 2003) and prison (e.g. Boyce et al. 2003; Department of Health 2002; Squires 1996; WHO 2003a).

Recently, new settings, such as sports clubs (Dobbinson et al. 2006; Kokko 2005; Kokko et al., 2006; 2009a, b), sports arenas (Ratinckx & Crabb 2005), farm (Thurston & Blundell-Gosselin 2005) and internet (Evers 2006; Korp 2006) have been presented.

### 2.3.1 Healthy Cities

The first example of setting-based practice is the Healthy Cities project. Even though de Leeuw (2001) argues that a congruent concept of Healthy City does not exist because each city is unique, the shared foundation for the concept is the role of the local government and its influence on the conditions for health (Hancock 1993). Albeit it has been noted that the roots of the healthy cities extend to the mid 19th century (Awofeso 2003; Hancock 1993), the actual concept was created in Europe in 1986. At that time, 11 European cities were elected under the project of WHO (Hancock 1993). Soon after, the concept was realized also in North America (Aronson et al. 2007) and Australia (Baum et al. 2006). In the mid 1990's, the Healthy City idea was spread to the developing countries (Harpham et al. 2001). Around the beginning of the new millennium, there were over 1 000 cities that went along with the Healthy City idea (Mittelmark 1999). Moreover, it is estimated that somewhat 4 000 cities have in some way or another joined the Healthy City network (de Leeuw 2001). Awofeso (2003) has argued that, because of continuing urbanization, the Healthy City concept has a potential to benefit more than half of the people in the world.

As the Healthy city concept was launched around the same time as the Ottawa Charter established, it followed the definitions of the Charter, and indeed, this concept was the first attempt to realize the Ottawa Charter guidelines in practice (de Leeuw 2001; Hancock 1993). The main idea of the Healthy City is to get health issues on the agenda and decision-making process of local governments, community organizations and the private sector i.e. urban actors (Awofeso 2003; de Leeuw 1999). Secondly, the aim is to create strategies that identify the social, environmental and economic determinants of health through which corporate

and community culture can be changed (Hancock 1993; Harpham et al. 2001). Community and individual empowerment and participation are important factors in this concept (Aronson et al. 2007).

In spite of over twenty years of action, there is relatively little evidence of the effectiveness of the Healthy City concept (de Leeuw & Skovgaard 2005). Hancock (1993) points out that, even without scientific evaluation, the fact that health has been raised on the social and political agendas of hundreds of cities through these projects, has value of its own. It has also been noted that the development process within Healthy Cities has broadened the view of health and gained greater consensus of the importance of health (Aronson et al. 2007). To be more exact, Baum et al. (2006) found in their review that the Healthy City concept has improved e.g. inter-domain co-operation, social support and decreased environmental risks such as injury hazards. On the other hand, Northridge et al. (2003) argue that there are no proper research instruments or empirical data to prove the value and evidence of these actions to people's health. Indeed, Baum et al. (2006) say that evaluation has been the main concern of Healthy Cities from the beginning. However, de Leeuw and Skovraard (2005) argue that there is enough evidence in favour of Healthy Cities, but they also point problems with the communication of evidence, conflict between original ideas and current operations, and challenges between the present methodological tools and the complexity of the cities as settings.

### 2.3.2 Health Promoting School and University

Health promotion in educational settings has been realized both at school and university levels. The Health Promoting School (HPS) concept started to develop in North America and Europe right after the Ottawa Charter in the mid 1980's (St Leger 2001). The concept took some time longer to develop than Healthy Cities and the European Network for Health Promoting Schools was established in 1992, by schools from four European countries. Today there are participating schools from over forty European countries (Clift et al. 2005).

One reason for the new HPS approaches' upraise was the lack of evidence of the long-term positive impacts of the previous health education programs (Lynagh et al. 1997). Another reason was the interest of the educational sector in health, and the idea of a health promoting school that started to strengthen when the links between good health and good learning outcomes arose (Jourdan et al. 2008; St Leger 2001). Indeed, the HPS concept has been seen to contribute to learning outcomes, such as lifelong learning skills, competencies and behaviours, specific cognate knowledge and skills and self-attributes (St Leger & Nutbeam 2000). Learning outcomes have also been used as justification for HPS practice (IUHPE 2006).

The pertinent difference of modern HPS thinking on earlier health education programs or health education teaching is a wider perspective and movement towards the whole school system approach. Hagquist & Starrin (1997) describe this movement from information to empowerment. Rowe et al. (2007) found in their review, that the HPS approach has two mechanisms to enhance school connectedness: through inclusive processes, such as community participation, and supportive structures, such as school policies.

Three fundamental values have been emphasized as grounds for HPS: 1) health is seen from a holistic, not only from a disease perspective; 2) health is about equity and social justice; and 3) health is about empowerment (Tones 2005). Paulus (2005) points out four dimensions which health promotion actions should be a part of: 1) teaching and learning; 2) school life and environments; 3) cooperation and services; and 4) health management in schools. When implementing HPS, teacher training has often been seen as the central factor (Jourdan et al. 2008).

There is strong evidence in favour of the HPS concept (Lee et al. 2008; Mûkoma & Flisher 2004; Sun & Stewart 2007; Warwick et al. 2005). On the basis of scientific evidence on the good practices of Health Promoting Schools, the International Union for Health Promotion and Education (IUHPE) has recently defined the most important standards for HPS. Six relevant elements, following the Ottawa Charter, for HPS are: 1) healthy school policies; 2) the school's physical environment; 3) the school's social environment; 4) individual health skills and action competences; 5) community links; and 6) health services (IUHPE 2006). In the IUHPE's document, several important actions to establish and sustain the HPS concept are also acknowledged.

The HPS concept is close to Health Promoting Sports Club because it is another health promotion setting that reaches the same target group (children and adolescents), and an application of school well-being model (Konu 2002) to youth sports clubs is demonstrated in more detail in a later chapter of this thesis.

The Health Promoting University (HPU) concept has been developed based on the more widely accepted HPS concept. Universities were recognized as health promoting settings in the mid 1990's. WHO laid out the foundations to the HPU concept in 1998, and some national determinations have followed (Whitehead 2004b; Xiangyang et al. 2003). The conceptual framework by Tsouros et al. (1998) determined that HPU should:

"a) demonstrate a clear commitment to health, sustainability and equity in its mission statement and policies;

b) offer clean, safe and health-conducive physical environments and sustainable practices;

c) provide high-quality welfare, medical and health-related support services;

d) provide opportunities for everyone…to develop healthy and useful personal and life skills;

e) make available social, leisure, sports and cultural facilities;

f) promote a high level of participation;

g) encourage interest in and incentives for promoting health in curriculum development and research across disciplines and departments;

h) create mechanisms that facilitate effective listening and communication horizontally and vertically throughout the university;

i) comprise a resource of valuable skills and expertise for the local community and be a willing partner in developing health."

Despite the above WHO initiative, and a growing interest in the HPU concept, there is no wider European or global level network. One problem created by this, is that the above qualities for HPU are not generally accepted or executed (Whitehead 2004b). A critical argument for HPU is that despite wide potential to promote health of its students, HPU simultaneously has a limitation of including and affecting only university students.

Similarly to other settings-based concepts, the evaluation of the effects of HPU work is challenging. There is some evidence that health promotion through the university setting has had positive effects on areas such as policies, and physical and social environment (Dooris 2001; Xiangyang et al. 2003).

### 2.3.3 Healthcare and Health Promoting Hospital

Health promotion could be imagined as a self-evident part of the healthcare system. An expanded view of health promotion has, however, set out critical debate on this (Bandura 2005). Is healthcare automatically health promoting or is it, there for, curative care alone? Disease prevention and health promotion are important aims of the health sector, but because of growing workload for example, the realisation has been limited (Brotons et al. 2005).

The limitations of health promotion in healthcare and the need for a wider perspective and co-operation have been acknowledged. Epping-Jordan et al. (2004) established a model in which the patient's self-management after demobilization and support not only by healthcare but also community are central. In the model, the care of chronic patients is supported through micro (patient and family), meso (healthcare and community) and macro (policy actions) levels. Similar need for a more wide-ranging approach has been argued in health psychology (Smith et al. 2004).

Apart from hospitals, there is no stated or clear settings-based work in healthcare institutions. In primary care, for instance, the work of general practitioners has been guided towards more holistic health promotion, however, mainly through occupational development. On the other hand, it has been argued that a wider view of health promotion has not been considered well enough in nursing education (Liimatainen 2002; Whitehead 2007). Elsewhere, healthcare has been examined in the light of workplace, in which case the healthy workplace ideology has been used. Indeed, healthy workers in healthcare lead to better and safer patient care (Strelioff et al. 2007; Yassi & Hancock 2005).

In the healthcare system, the Health Promoting Hospital (HPH) concept does exist. The discussion on hospitals' potential in health promotion started soon after the Ottawa Charter. The international HPH network was established in 1991, and a pilot project in Europe started in 1993 (Groene et al. 2005; Pelikan et al. 2001; Whitehead 2004a). Groene (2005) describes the international network as a network of networks, illustrating the nature of the work. The HPH framework is widespread in Europe, North America, Australia and Asia. At present, there are 33 national or regional networks with 647 Health Promoting Hospitals or Health Services (WHO 2007).

The main idea of HPH relies on what the Ottawa Charter stressed as reorienting health services, this outlines especially organizational development, policies and practices toward a health promoting emphasis. Pelikan et al. (2001) describe the same; hospital as physical and social environment, healthy

workplace, provider of health services, training, education and research, advocate and change agent.

To guide hospitals in settings work, the standards for Health Promoting Hospitals were created by WHO in 2004. Recently, the development of specific guidelines for the health promotion of children and adolescents in hospitals has been started (Aujoulat et al. 2006). The standards for HPH consist of five main standards and 24 sub-standards. The main standards are:

> "1) The organization has a written policy for health promotion. The policy is implemented as part of the overall organization quality improvement system, aiming at improving health outcomes. This policy is aimed at patients, relatives and staff.
>
> 2) The organization ensures that health professionals, in partnership with patients, systematically assess needs for health promotion activities.
>
> 3) The organization provides patients with information on significant factors concerning their disease or health condition and health promotion interventions are established in all patient pathways.
>
> 4) The management establishes conditions for the development of the hospital as a healthy workplace and
>
> 5) The organization has a planned approach to collaboration with other health service levels and other institutions and sectors on an ongoing basis" (WHO 2004).

Groene et al. (2005) piloted these standards and they were found to be applicable and relevant. The pilot study also showed low compliance by the hospitals and thus highlighted the need for the standards.

On the bases of reviewing the realised HPH projects, Johnson & Baum (2001) proposed a typology of different organizational approaches to health promotion in hospitals. The models are "1) doing a health promotion project 2) delegating it to the role of a specific division, department or staff 3) being a health promotion setting and 4) being a health promotion setting and improving the health of the community" (Johnson & Baum 2001). Similarly to the Whitelaw et al. (2001) typology presented earlier, two main dimensions can be found. If a hospital operates according to the first two models, health promoting activities are seen in a marginal role and external. However, if a hospital operates through either the third or fourth model, health promotion activities are seen as integrated to the core business of all activities and the baseline is a settings-based approach.

As to the effects of the HPH concept, it has been argued that only some progress in hospital settings is realised (Whitehead 2004a). On the other hand, Groene (2005) commented this argument by reminding of the nature of reporting the HPH results through the WHO initiative, conferences and in other languages than English. Either way, positive results of HPH work have been reported for example in the field of personnel training, better funding, understanding the concept and teamwork, improved working conditions, and collaboration with patient organizations (Groene 2005; Guo et al. 2007, Põlluste et al. 2007; Tountas et al. 2004). Also, patients have been reported to perceive the benefits (Tountas et al. 2004). On the other hand, Haynes (2008) found that hospitals rarely delivered health education to patients. The main limitations to realising HPH have been,

for example, limitations in funding and time, shortage of personnel and lack of skills (Guo et al. 2007; Tountas et al. 2004).

### 2.3.4 Health Promoting Workplace

Health promotion activity within the workplace is not new, but health promotion executed within the workplace setting has not generally been called "Health Promoting or Healthy Workplace", or approached through the settings ideology. There are several guidelines or alike to improve workplace health promotion (Department of Health 2001; WHO 2003b).

Workplace health promotion started to develop in the 1970s, with the focus on specific diseases. In the 1980s, the focus shifted towards general wellness, and in the late 1990s, the concept of Health Promoting Workplace was created (Chu et al. 2000). Nevertheless, it has been argued that workplace health promotion still has an individual-focused emphasis (Noblet 2003).

The interest of private and public sector employers in health promotion increased as the general awareness of the link between productive work and healthy, qualified and motivated workers arose. The link between health promotion and core-business of the employers gradually became clear.

On the bases of reviewed literature and exemplary project on workplace health promotion, Chu et al. (2000) emphasized the following factors as the most essential for success; the Health Promoting Workplace initiative should: 1) involve all the staff at all the stages; 2) project management should be based on the problem-solving idea; 3) health promotion actions should be integrated to the regular management practices of an organization; 4) programs and actions executed should be comprehensive and include actions from individual to environmental factors.

Since the Health Promoting Workplace concept is relatively new, there is not much evidence on its effects. With this notion, Engbers et al. (2005) argue that several worksite health promotion programs aimed at environmental factors improved workers' health behaviours, such as dietary intake. The number of environmental factors, associated with psychological stress, was found to be very high for nurses and should therefore be intervened by creating a Healthy Workplace for nurses (Lavoie-Tremblay et al. 2008). Indeed, Noblet (2003) reported that the settings approach could be effective in preventing occupational stress and enhancing work satisfaction.

### 2.3.5 Other healthy/health promoting settings (Prison, Sports Club, Stadia, Farm and Internet)

After the development of settings-based health promotion in the above traditional settings, several new ones such as Prison, Sports Club, Stadia, Farm and Internet have been introduced. The Health Promoting Prison idea is the most developed of these. It was started in England, Wales and Scotland in the early 1990s, with the main focus on prison health services (Department of Health 2002; SPS 2002; Squires 1996). This emphasis is understandable, because of the high prevalence of health problems in a prison population (Condon et al. 2007).

The Health in Prison Project (HIPP) became a WHO initiative in 1995. During the first ten years, HIPP grew from a network of eight countries to 28

countries (Gatherer et al. 2005). The HIPP network provides shared knowledge of good practices, and supports initiatives in health promotion planning and implementation. Despite of focusing on disease prevention and health service improvement today, HIPP aims at developing prisons' policies and management leadership toward a more health promoting emphasis (Møller et al. 2007). The basis of this development is the recognition that a prison should be safe, secure, reforming and health promoting, and also respecting decency and human rights (Hayton 2007). In the most recent declaration, the HIPP network emphasized the integration of prison health to public health i.e. health promotion within prisons but also in unison with the surrounding community (WHO 2003a). The evaluation of the effects of the HIPP concept is again challenging, and until now, there are no competent research results.

The potential of sports stadiums or clubs as settings for health promotion was only recently recognized. At the early stages in Australia, sports venues were utilized and examined through the effectiveness of sponsoring and advertising (Corti et al. 1995; Crisp & Swerissen 2003; Giles-Corti et al. 2001; NHMRC 1997). More recently, sports clubs' alcohol use and misuse prevention program (the Good Sports Program) was developed (Duff & Munro 2007) and sports clubs' health related policies being examined (Dobbinson & Hayman 2002; Dobbinson et al. 2006).

The concept of a healthy sports club has been introduced around the world, for example in Australia (VicHealth 2008), Slovenia (SUS 2007) and New Zealand (CCC 2003). These concepts, however, are practice-based and lack theory and research evidence grounds.

The concept of the health promoting sports club (HPSC) was introduced in 2004, when the theoretical background for the concept was compiled (Kokko et al., 2004; see also Kokko, 2005). The concept is based on five strategic key areas for health promotion by the Ottawa Charter (WHO, 1986). Around the turn of the millennium, Kannas (2000) generated the preliminary criteria for the concept. Today, under the HPSC concept, the most relevant standards for youth sports clubs have been created and a descriptive survey of Finnish youth sports clubs conducted. The ideology of HPSC has been accepted to some degree in Finland, but internationally the development is at the early stages. The HPSC concept is the core of this thesis.

The Healthy Stadia concept started to develop in 2004 in the UK (Ratinckx & Crabb 2005), but is still at the early stages of development (Doherty & Dooris 2006). A Healthy Stadium can be defined as: "...one which promotes the health of visitors, fans, players, employees and the surrounding community. It is a place where people can go to have a positive healthy experience playing or watching sport." (Crabb & Ratinckx 2005). The aim of the Healthy Stadia Initiative is: "To ensure that those people who visit, play at, work at, or live in the neighbourhood of professional sports clubs have the opportunity to be supported by the Healthy Stadia Programme to live healthier lives" (Crabb & Ratinckx 2005). A preliminary network of Healthy Stadia was recently established in Europe. The network includes 64 European sports stadiums (Tenconi 2008). The International Healthy Stadia conference in 2009 launched a call for wider network (Healthy Stadia 2009). The Healthy Stadia initiative has produced a toolkit, but only some preliminary scientific research has been realized.

Farm and internet settings are newcomers and are restricted to the ideas of an individual researcher or research group. Farm as a setting for health promotion is an idea of Thurston & Blundell-Gosselin (2005). The main focus of health promotion programs directed to farms and farmers have traditionally been epidemiological-based. The main emphasis has been safety and injury prevention. The authors adapt setting approach to farms and portray several characteristics that should be kept in mind when planning and implementing future health promotion programs through the settings ideology.

There is a growing need to recognize the possibilities provided by the Internet as a setting for health promotion. So far, the Internet has been a channel for health-related information but it is passive and expert-led (Evers 2006). Korp (2006) discusses the advantages and disadvantages of internet-based health promotion; he uses empowerment as a point of view. The main argument here is that the potential or the possible negative impacts of the Internet as a setting for health promotion have not received enough attention or been examined sufficiently. Because the Internet has such a significant impact on people's lives today, this should be done in the near future. Indeed, many interventions, like Irestig's et al. (2005) intervention to create a peer-based computer system in voluntary organizations, have been generated.

### 2.3.6 Shared and setting-specific characteristics

Several collective characteristics can be found between the traditional settings discussed above and there are also settings-specific factors. These unifying and separating factors are summarized in Table 2, the sports club is added for comparison.

The Ottawa Charter has been a starting point for all the settings practices as it laid out the grounds for the settings work. In all the cases, the settings are wide and complex entities. The emphasis is primarily on environmental factors through which people's health is affected. This means concentration on organizational change and key actions are commonly determined as standards or alike. A breakthrough in traditional settings has been, when a link between settings-based health promotion and core-business of a setting in question has been realised. The main challenge is on the evaluation of impacts and effectiveness.

There is variation between different settings in relation to the year of establishment, target groups, implementation, main activities, range of the settings work, and the quality of evidence. For example, Healthy City was developed over twenty years ago, whereas Health Promoting University has a history of about ten years. There are also clear settings-specific target groups. Implementation and quality of evidence are largely due to the duration of the development of each setting. The range of the settings relies strongly on the main activities, but also on the nature of the setting in question.

Based on the above review of various settings work, it can be stated that the shared characteristics pertain to youth sports clubs too. The development phase is in its first steps, as is the international prevalence. The target group is limited to those participating in club activities, but is fairly wide-ranging, because of broad accessibility. The main emphasis is equal to the others, but many specific factors connected with the organizational structure and nature can be found, as highlighted in Chapter 3. In any case, settings work has unifying elements,

TABLE 2 Shared and settings-specific factors within traditional healthy or health promoting settings with a sports club addition.

| | | Setting | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **City** | **School** | **University** | **Hospital** | **Workplace** | **Prison** | **Sports club** |
| **Setting-specific factors** | **Launch year of the concept** | 1986 | 1986/87 | 1998 | 1991 | Late 1990's under a label of settings work | 1995 | 2004 |
| | **Target group** | Citizens | Primary students, Secondary staff | Primary students, Secondary staff | Primary patients, Secondary personnel and visitors | Working age adults | Primary inmates, Secondary custodians | Primary participating youth, Secondary adults |
| | **Implementation** | Global | Global | No wider network | Global, but waiting for a breakthrough | Global, but settings-based work recently started | Mainly European countries | Finland and Australia |
| | **Main activities** | To get health on the agenda in the decision-making process, changes in community culture | Inclusive processes (teaching) and structural changes (management) | Similar to school | Organizational development to integrate health promotion into the curative care | To integrate health to daily management and activity | Through healthcare, changes in policies | Changes in club policies, development of daily culture i.e. coaching |
| | **Range of the settings work** | All the citizens, but distant in nature | School participating youth i.e. almost all from a single age-cohort | University students i.e. minority of young adults | Specific target group i.e. unhealthy people | Employed people | Inmates | Youth participating in sports club activities i.e. about 40% in Finland |
| | **Quality of evidence** | Relatively good on impact, weak on effectiveness because of the complexity | Strong on both impact and effectiveness | Some evidence on impact, none on effectiveness | Relatively good on impact, some on effectiveness | Strong on previous work, not much on the basis of settings work | No competent research | Tentative |
| **Shared characteristics** | | • Complex entities<br>• Grounds in the Ottawa Charter<br>• Emphasis on environmental factors<br>• Primary targeting on organizational change, secondary on individual behaviours<br>• Key actions determined as standards or alike<br>• Expansion after a link between settings-based health promotion and core-business of a setting in question recognised<br>• Impact and effectiveness evaluation challenging and so far only partly successfully developed | | | | | | |

and lessons learned in one setting can and should support the development of another.

## 2.4 Health promotion capacity building

To implement health promotion policies more effectively in practice within community-based settings, such as sports clubs, three vital stages have been acknowledged: 1) health promotion capacity building; 2) program implementation; and 3) evaluation and/or research (Robinson et al. 2006). As to the settings approach, which is the approach of this thesis, health promotion capacity building is one possible concept in developing organisations to become more health promoting. Health promotion capacity building can be seen as a means, but also as an end (Labonte & Laverack 2001a, b), although, it is mainly seen as a means, as it is in this thesis.

Capacity building emphasises many factors through which an effect on the capability of an organisation to realise health promotion activities is striven (Ebbesen et al. 2004; Robinson et al. 2006). According to Robinson et al. (2006), capacity building within non-profit, non-governmental organisations consists of adequate staff and volunteer time, financial resources, agency interest in the issue, leadership and/or champions, congruency and/or common vision and priorities, partnerships, technical support, political-economic climate, and organizational structures as they relate to coordination and communication. Casey et al. (2009) found that capacity building strategies, especially resource allocation and staff development, were the main components for a successful increase in a sporting organization's capacity to execute health promotion.

Capacity building is a multilevel concept from the individual to community and organisational level and even beyond. Mainly individual and community levels have been emphasised. When adopting this allocation to a sports club setting, individual capacity building refers mainly to the factors from personal values and knowledge to the skills of the club members, whereas community capacity building refers first of all to the development in the structures and ethos of a sports club, but also to the commitment and skills of its actors, in this case club officials and coaches. Furthermore, since the health promoting sports club concept desires development on every level with emphasis on organizational change, the process is closest to community capacity building. Organizational change has been argued as a focal part of community capacity building to ensure sustainability (Heward et al. 2007).

Crisp et al. (2000) have created four potential approaches to health promotion capacity building: 1) top-down organizational approach; 2) bottom-up organizational approach; 3) partnerships approach; and 4) community organizing approach. They also note that these domains interact, and a change within one affects the others. Joffres et al. (2004) argue that to actually improve the capacity of a community or organization, multi-level actions are needed.

In terms of health promotion, sports clubs have several elements, such as policy, practice and environmental factors. The policy level signifies publicly established determinations or guidelines for the ways of action in the club. The practice level is directed towards daily activities where club officials (mainly

coaches) operate with young athletes. Environmental factors are related to the sports club as a healthy environment or setting in which many physical, but also social environmental factors affect its activities.

Hoyle et al. (2008) argue that only if the organisational capacity (in schools) is at a high level, individual capacity can be supported. This means that a sports club should be the initiator and activities executed broadly (cf. standards for the health promoting sports club by Kokko et al. 2006). At the most practical-level, this focuses on coaching practices and on the club's activity to guide coaches to recognise and implement health promotion i.e. guidance activity. There is a positive attitude towards health promotion among coaches in Finland, but the greatest obstacle to increasing health promoting activities is the lack of skills and knowledge on health-related issues (Kokko & Kannas 2004). This further highlights the club's role.

# 3 YOUTH SPORTS CLUB AS A SETTING FOR HEALTH PROMOTION

This chapter focuses on the sports club concept. The chapter is based on the first article of this thesis (Article I). The purpose of the first article was to create a conceptual frame of reference for the health promoting sports club concept. The article focused first on describing two main concepts of the study – health promotion and sports club. Within health promotion, a settings approach was selected. The justification for this approach was due to the previous work in the field of health promotion. Similar kinds of health promoting concepts have been created for other settings as described earlier. For youth sports club activities different characteristics were portrayed. Second, the article highlighted some theoretical models applicable to the concept. The health promotion-related issues have been discussed in the previous chapters. Sports club-related issues are dealt with next.

The original article was published in Journal of Sport & Science [Liikunta & Tiede] in 2004 (Kokko et al. 2004). And almost equivalent English version of the article was published in a book by Hoikkala et al. (2005) Beyond Health Literacy (Kokko 2005). In the following, several additions and revisions have been made to the original articles.

## 3.1 Characteristics of youth sports clubs in Finland

### 3.1.1 Development of Finnish sports culture and club activities

Social organizations can be divided into three sectors: commercial or economic, public administrative and voluntary (Koski 1994). The first sector refers to the market economy sector, which is also called a profit-sector, because the main emphasis of its activities is to make financial profit. The public i.e. the second sector refers to organizations maintained by the state or municipalities, school for example. The third sector is somewhere between the first and second sectors and

is often called non-profit making, since it is based on voluntary civil activity and executed without profit-making aim (Kangas 2003; Thiel & Mayer 2009).

Sports culture has been a solid segment of the development of general civil activities i.e. the third sector in Finland. The first Finnish sports club, a sailing club – Björneborgs Segelförening, was founded in 1856 (Laine 1984), and a large-scale upswing in sports club activities took place in the 1910's and 1920's. The civil activity of the Finnish sports movement can be divided into four periods (Itkonen 1996; 2000). The first is the period of organizational culture (1900–1930): During these decades, many new sports clubs were founded and central organizations established. Overall, physical activity and sports reasserted their position within Finnish society (Siisiäinen 1990). The second period, recreation-competitional (1930–1960), started when competition orientation increased. Sports clubs concentrated on specific sports disciplines. This brought along a need for changes in the organizational structures. General, several discipline clubs started to disband and became one discipline-specific clubs (Itkonen 1996; 2000).

The transfer to the third period, competition-coaching (1960–1980), took place at the same time with a strong transition in Finnish society, as for instance, sports became a means to exert political influence. Competitive sports became the core-business of sports club activities, with other issues, such as education or health, left in a minor role. At the same time, however, Finnish people became interested in personal health, which increased interest in fitness training (Heinilä 1974; Heikkala 2000). Thus, there was a contradiction between people's interests and sports clubs' core activities. This new emphasis on the public level generated pressure for the next change.

The fourth period, diverge sports culture (1980 to today), describes the development in which the field of sports and physical activity expanded both qualitatively and quantitatively and broke into smaller units organizationally (Itkonen 1996; 2000). Koski (2009) notes that the average size of the sports clubs has diminish even though membership has grown. The qualitative changes are due to the increased popularity of team sports in ball games, versus decrease in the traditional individual sports like long-distance running. Also, the operational principles of the clubs widened; organizationally, more general clubs were divided into smaller one discipline specific clubs, and the former central organization led format has been loosening (Heikkala 2000; Itkonen 1996; 1997a).

Pekkala & Heikkala (2007) have described the position of the modern civil activity of sports as pathway to well-being. By this they continue Heinilä's (1974) typology of the development of Finnish sports culture. The main message here is that sports clubs are expected to have a stronger share of responsibility in the affluent society of Finland by recognizing their role and opportunities in e.g. health and well-being promotion. In this respect, one influential change in Finnish society has recently been the movement towards new public management, in which sports organisations and clubs are seen as an extension of the state and municipalities (Koski 2009). This may jeopardize the traditional voluntary civil activity-based nature of the clubs and breed more demands for the clubs to provide services for public needs.

### 3.1.2 Orientations, practical figures and international perspective

Almost all of the Finnish sports clubs are voluntary civil activity-based and non-profit making. Moreover, sports clubs are the ones that organize and implement physical activity and sports. The operational environment of the sports clubs has been divided into general and special environments (Heinilä 1986). General environment relates to society and to the present cultural, economic, political and organizational circumstances. Special environment pertains to the immediate surroundings and parties that the clubs are most dependent on. The main point is that a sports club is part of the surrounding society and therefore not able to act outside it, Rütten et al. (2008) have argued that voluntary organizations (in this case sports clubs), are mediating structures of a society that can act as social catalysts for health promotion.

The Finnish sports system consists of 38 national level sports and physical activity organizations and 75 sports federations (Koski 1999). It has been estimated that there are between 6 000 and 18 000 sports clubs in Finland (Anttila & Pyhälä 2005; Koski 2000a). However, a common understanding today is that there are about 9 000 sports clubs that are active (Anttila & Pyhälä 2005). The majority of them have activities for children and adolescents (Koski 2009).

Youth sports clubs are the largest organizers of leisure time activities for youth in Finland. Club activities attract the largest number of children and adolescents after school. Slightly more than 40% of children and adolescents are estimated to participate in sports club activities (SLU 2006a; Vuori et al. 2004). This means 402 000-432 000 children and adolescents[1]. The participant rate varies between the age groups and the gender; almost 60% of 11-year-old boys and slightly less than 40% of 15-year-old boys and girls participate in club activities (Vuori et al. 2007). It has also been estimated that the sports system retains, down the line, 70–80% of the children and adolescents below the age of 20 (Koski & Tähtinen 2005; Lämsä & Mäenpää 2002). In addition, youth sports club activities involve many adults. Of the 532 000 adults aged 19 to 65 years old who act in sports clubs as civil activity every third focuses on children and adolescents (SLU 2006b).

Sports systems vary worldwide between countries. Regardless of the heterogeneity of the systems, two models of sports systems can be found in Europe: 1) laissez-faire and 2) interventionist (Porro et al. 1999). The distinction between these models is the role of sports as a free choice versus a public service. The same can be described by observing the differences in the relationship of organized sports and the state (Heinemann 1999). It can vary from relatively high autonomy (e.g. Germany, Norway, Finland and Denmark), to strong dependency on the state (e.g. Italy and Spain), to major control and provision of sports by the state (e.g. France).

Similar variation can be observed when investigating sports clubs. While sports may be organized in all European countries in clubs, understanding what the terms "sports club" and "sports club participation" mean across countries and cultures requires examining the history and traditions of clubs and the organizational framework of sports (the structure of the system and clubs)

1 Population of Finland is 5.3 million (Statistics Finland 2008)

(Heinemann 1999). Regardless of these differences, it can be generalized that sports clubs represent the implementation component of a sports system. In other words, clubs are settings where children and adolescents actually engage in sports with coaches and other adults contributing to the youth's benefit.

### 3.1.3 Sports clubs as informal educational settings

The youth sports club is a complex and dynamic social phenomenon which, from the educational point of view, is informal by nature (Robertson 2001). There has been a lively debate on what is the proper way to categorize education within different settings, situations and by whom. Smith (2006) points out that the categorization of education should be viewed by the processes not only through the context it occurs in. Categorization is, however, always artificial. Perhaps the most prevalent way used is to separate formal, non-formal and informal education. Formal is linked to formal educational institutions, such as day care centres or schools. The difference between non-formal and informal is in the way the educational situations are considered. Non-formal education occurs in non-governmental organizations like associations for example, but it has a stronger emphasis on intended educational matters like in ideological communities (Livingstone 2006). Informal education refers to daily activities e.g. coaching activities executed in an informal setting like a sports club (Jeffs & Smith 1999). Thus, in informal education, the educational focus of the coaches is on sports-related issues and health-related issues are taught in daily situations either consciously or unconsciously, but many times as co-products.

Sports clubs operate outside the formal education systems. Therefore the clubs represent educationally, the non-formal or informal type. Moreover, children's, adolescents' and adults' involvement is based on voluntary participation. They can basically join sports club activities and resign from them at any time. Also, in principle, participation in training and competition events is optional. Sports club activities are the best known form of civil activity of adults in Finland (Yeung 2002), and even though clubs have more and more paid full-time or part-time employees, almost all of the youth sports club coaches or instructors operate on a voluntary basis (Koski 2000b). Paid personnel work in club-level assignments like managers or heads of coaching (Koski 2009). This voluntary-based participation of children and adolescents but also adults emphasizes the informal educational nature of sports club activities further (Graham 2000; Robertson 2001).

Informal education consists of, for example, working with others, sharing of ideas, development of skills and assessing values. It is a process in which education occurs through daily life and situations. On the other hand, informal education may include systematic learning objectives, time used in learning and support to learning (Harju 2003). In health promotion, the healthcare system is often too formal a setting for the youth and its health messages are ignored. Health promoters have reached adolescents better through informal settings, such as streets and youth clubs (Graham 2000). Maro et al. (2009) found that education on HIV/AIDS was more effective through organized sports than school. Moreover, in this way youth are more willing to participate in health promotion planning (Robertson 2001).

Like schools have written and unwritten curriculums, youth sports clubs can be seen to have official (written) and unofficial (unwritten) agendas or action plans. In schools, curricula can be divided into written, realised and unwritten ones (Ahola & Olin 2000). A written curriculum means written contents and aims of education and educational methods. It also determines the regulations and activities through which the educational institute strives to reach its educational objectives. A realised or actual curriculum describes the matters that really are taught and learned in schools. An unwritten curriculum covers all the other things that are learnt at school. The unwritten curriculum has been also described as unofficial or unplanned (Blumberg & Blumberg 1994). The main point is that even though the unwritten curriculum contains no written or planned things, learning still takes place.

In youth sports clubs, the official agenda has sports-related objectives, such as skill development, whereas the unofficial agenda can have health related issues (Kirk & MacPhail 2003). The unofficial action plan of health promotion for a sports club could mean unconscious health promotion activities by the club and coaches, through which adolescents involved in sports acquire health related knowledge and skills. This might happen also through unofficial ways if a club or a coach concentrates strongly on matters related to sports. In other words, the club, coaches and other officials influence adolescents' health conception with their own perceptions and behaviour whether noticed or not. In both cases, this may affect adolescents' health behaviours and for example, the pattern of acceptable intoxicant use. Thus, the unofficial action plan comprises sports club activities in their entirety, their practical execution, the needs of sportsmen and coaches, and the expectations on sports club activities by society. In sports club activities, the sub-domains of such an unofficial action plan may vary greatly in practice. The orientation of a sports club towards competition versus recreation has influences on the recognition of educational goals for example.

An unofficial action plan has a significant effect on the sports club activities, because tradition and ethos have a strong guidance effect at the practical level in voluntary-based organizations like sports clubs (Heikkala & Koski 2000). The characteristics and emphases of different settings need to be recognised, especially when sports clubs are expected to notice issues (health) often interpreted as outside of its core-business (sports).

## 3.2 Sports club activities and social capital

When a link between physical activity (sports) and health is reviewed, it is often done from the perspectives of physical activity and physical dimension of health. For example, high level of physical activity (sports) decreases the risk of developing type II diabetes, heart illnesses, obesity, etc. (Cavill et al. 2006). However, health has at least three dimensions – physical, social and mental – that are equally valid (Greenberg et al. 2004). The social dimension of health is to a large degree dependent on social networks and interaction in those. Social interaction furthermore encompasses the quantity (participation) and the quality (weak/strong bonds) of social networks within club activities (Hyyppä 2006).

The sports club, besides arranging sporting activities for the youth, manifests a social context (Kirk & MacPhail 2003). It has been stated that sports club participation generates social capital explicitly through social interaction and engagement (Daly 2005; McGee et al. 2006). Siisiäinen (2001) argues that sports club activities influence the development of the collective identity of adolescents and young adults on a more long-term basis. Many children and adolescents have, for example, created lifelong friendships through sports club activities. They have also learned social-related skills such as self-confidence, how to act with other peers i.e. teamwork skills, respect for rules, but also how to work with different kinds of adults (Yeung 2002). At societal level, the prominent role of sports clubs in Finnish society is a positive factor from the viewpoint of developing social capital. Sport at community level, for example, has had a significant effect on societal integration (Allardt 2001). These have been used as supporting arguments for sports club activities in terms of sports clubs' role as manufacturers of social capital.

Social capital has often been examined through the theories of Bourdieu, Coleman and Putnam. Bourdieu (1977, 1986, 1998) was the first to acknowledge the modern way of determining social capital. Social capital is seen from society through various social domains. Central aspects of Bourdieu's theory are means of exercising power and the interactive relationships between economic and cultural structures and their participants. Social capital is one of four forms of capital; it means actual potential resources that an individual has because of a network of relationships based on friendship and appreciation. Fundamental elements here are participation in a group and trust. In a sports club context, participation in its activities and trust perceived creates resources for an individual.

Coleman's (1988; 1990) work shifted the focus of social capital from Bourdieu's individual-oriented point of view towards group, organization and society. Access to the resources emerged as the main emphasis (Daly 2005). Coleman sees social capital as the relationship between families and communities. The main factors of social capital are the structures and function attributes of these factors. As an example, in educational settings, in this case sports clubs, social capital is a set of resources within and between family relations and the community's social organizations (sports clubs). These resources are valuable for the cognitive and social development of children and adolescents.

Putnam (1993; 1995; 2000) sees social capital in relation to social and societal levels. It represents the shared strength or resources of the whole community and is produced by the moral responsibilities of individuals, collective trust and social networks. Sports clubs have been found to generate mutual trust and feelings of safety (Rowland 2006). It should be noted here what Lock et al. (2008) argue, that social capital available in certain social context has an effect on individual possibilities to generate personal social capital. In the sports club context, this relates for example to the size of a club and to the level of know-how.

Putnam (1995; 2000) demonstrated his idea of social capital through the fact that in the US social interaction between individuals has decreased. While continuing to have many leisure activities, people increasingly pursue them alone. There are less and less social networks for people to be involved in reciprocity activities. Sports club participation, in the form of voluntary civil activity, in contrast with several social contacts, increases social communication and networking and generates possibilities for reciprocity activities. This supports

the idea of Putnam (2000) "I'll do this for you without expecting anything specific back from you".

Although Bourdieu's way of seeing social capital as individual-oriented is almost opposite to that of Putnam's, sports clubs can be generalised as potential settings to produce social capital in both theories. The main question is how this is recognized and supported in youth sports club activities. For example, sports clubs may have positive, but also negative effects on social capital (Koski 2005; Lock et al. 2008). It has been argued that if sports clubs adhere to constricted traditionalism and introversion, they reduce social capital by, for example, exclusion of some people (Hautamäki 2001; Robertson 2003; Tonts 2005).

One important issue regarding social capital is the development trend that social cohesion in Finnish sports club activities has been diminishing and weakening (Allardt 2001). Only less than half of the Finnish 15 to 29 years old felt that they were closely a part of some organized recreational activity (Myllyniemi 2004). Also the volunteer dependent nature of sports club activities is fading all the time (Koski 2000b). This, for example, raises the challenge for club management to engage members in club orientations and policies especially regarding health promotion. Yeung (2002) raises the question, from the point of view of social capital, whether voluntary sports club activities provide rewarding social networks for individuals or whether people pursue voluntary activity in order to gain new social contacts at the moment. Either way, in the health promoting sports clubs concept, the influence of the social environment should be take into account.

Finally, many studies have shown that individuals with higher level of social capital self-rate their health more positively (Hyyppä 2001; Hyyppä &Mäki 2001; Kim et al. 2006; Schultz et al. 2008). This justifies connections between social capital, health and sports club activities, especially when important providers of social capital are participation in associational activities, organized interactions and voluntariness i.e. characteristics of sports club activities (Hyyppä & Mäki 2003; Schultz et al. 2008; Tonts 2005).

## 3.3 Sports clubs' internal organizational communication i.e. guidance activity

One of the main concepts of the empirical part of this thesis is sports clubs health promotion guidance activity. Since this concept of health promotion guidance activity has not been previously determined, it has been adopted from the somewhat similar concept of internal organizational communication, in which internal organizational communication (guidance) is the means, and health-related messages are the content.

In organizational communication, two main domains can be separated: internal and external. External communication refers to public, media and inter-organizational communication, including risk and crisis communication (Johansson 2007). Internal organizational communication is divided into personal, interpersonal, group and organizational levels. Of these, interpersonal communication has been the key focus in organizational communication research,

but recently more emphasis has been on organizational and inter-organizational levels (Jones et al. 2004).

Heinilä (1986) stated that a sports club's functioning depends on internal organizational communication, external communication, environmental relations, traditions, present needs, tasks, and future development aims. Since the health promoting sports club concept is about internal development, and another important element of this process is the club's guidance activity towards coaches, the sports club's internal operational system and organizational communication are in focus. Sports clubs as organizations have similar communicational fundamentals than any other organization, but also special characteristics. Guidance activity can be determined in this thesis as being near internal organizational communication.

A sports club's internal operational system, in fact, incorporates internal organizational communication, which is determined by several system elements, such as ideology, membership, program, resources and management (Heinilä 1986). Ideology determines the purpose of sports club activities; membership relates on one hand to the members as subjects but on the other as objects of the activities: subjects when holding an official role in a club, like membership in the Executive Committee or a coach, and objects when being normal club members affected by the club; the program determines the ideology, but also points out the means for practice; the resources consist of all the human and material resources; and management secures the fundamentals for the activities. This is shown in practice so that the reality is as ideology and ethos determine. The meaning of these elements to internal organizational communication is two-fold; the elements first of all, regulate and affect organisational communication, and on the other hand, communication is a part of every element and a unifying element in all the others.

Internal organizational communication has been seen through various dimensions of communication, such as levels, direction, function, content and form (formal versus informal) (Postmes, 2003). Internal organizational communication includes both message sending and receiving behaviours from directing persons to others, but also the other way round (Mahmood 2006). Internal communication can be seen as a vehicle for achieving and maintaining co-operation among organizational members, as well as an important generator in organization culture. Communication plays a mediator role between individual and social meanings i.e. social identities, and this can relate to, for example, the ethos of a sports club. Social identities and communication jointly are essential for internal organizational communication, because in this way, common understanding, language and identity can be reached (Postmes 2003).

In sports clubs, communication channels are often difficult to define (Thiel & Mayer 2009). In this respect, internal organizational communication can be seen as a means for management, and indeed, managers are influential persons to this communication (Mastrangelo et al. 2004, van Vuuren et al. 2007). Vertical communication i.e. between management level and actors has been found as stronger predictor for organizational commitment than communication among actors (Postmes et al. 2001). Managers in sports clubs are club officials and in the light of this thesis, they try to ensure that health promotion policies are recognised by the practitioners i.e. coaches (guidance activity).

## 3.4 Underlying models for the health promoting sports club concept

There are four underlying models behind the health promoting sports club concept. The first is the model for settings-based health promotion by Whitelaw et al. (2001), which was introduced in the previous chapter. The three other models are: the model of well-being by Allardt (1976) and its application to school by Konu (2002), typology of sports clubs by Itkonen (2000), and preliminary criteria for a health promoting sports clubs by Kannas (2000).

### 3.4.1 Model of well-being applied to sports clubs

According to Allardt (1976), well-being has three fundamental dimensions; living conditions (having), social relationships (loving) and means for self-fulfilment (being). Konu (2002) applied these elements to the school setting. Her well-being measures are divided into: 1) school conditions; 2) social relations; 3) means for self-fulfilment; and 4) health status. In Allardt's original model, health is an important element of living conditions. Konu & Rimpelä (2002) instead separated health as an independent moderator of resources for well-being, through which other areas of well-being can be attained. The focus of the model is on individual needs, and the satisfaction of these human needs generate individual resources. For example, adequate social interaction may increase social resources. Kokko (2005) applied Konu's model further to junior ice-hockey clubs in Finland, which is described here.

Living conditions in junior ice-hockey mainly relies on the place in which the activities are realized, these being, either indoor or outdoor rinks and their immediate surroundings. The actual sport is played in a rink and on ice. During practices or games, several factors are influential: the condition of the ice, air quality, temperature, auxiliary training equipment and discipline specific factors, such as other players and physical contact. Off-ice activities happen either in the locker room or in the corridor (communal) areas of a rink. Safety, hygiene as well as convenience issues need to be recognized. According to Konu (2002), environmental factors also include schedule-related issues. In junior ice-hockey, game and practice schedules, such as the number of events per week and the time when these events take place, have an effect on the overall life rhythm of the adolescents. Many late night practices, for example, may increase the risk of many sleep problems (Tynjälä & Kannas 2004), such as sleep loss (Wolfson & Carskadon 1998).

In a team sport like ice-hockey, social relationships are crucial. This applies to both player-to-player and player-to-coach interaction. As here the focus is on health-related matters, one important element is how the coach converses with the youth. Honkonen & Suoranta (1999) have found four different modes of speech in junior sports: intensive training, socialization, amusement and health speech. The modes reflect the prevailing culture and values of the sport in question. In the case of using health speech, the coach emphasizes well-being, and has an educational orientation, like enhancing the healthy lifestyle. Another important issue here is that of peer-relationships, given that peer pressure may influence individual health choices and behaviours. Negative influences may encourage

individuals to experiment or use alcohol or drugs in order to be accepted within the sub-culture of the group, with positive peer influence, on the other hand, possibly forcing individuals to behave in a healthy fashion, shunning the use of alcohol or drugs (Thorlinsson 2005). The third important group to have positive and active social interaction in junior sports is parents. According to Murphy & Kanost (2002), parents did not know nor had been involved in sports clubs health policy-making processes. It is argued that this should be improved.

Self-fulfilment is important and challenging in junior ice-hockey. Each player (youth) is unique with his/her own needs, and behaviour to fulfil these individual needs are also different. Perhaps the most essential point here is that a coach should recognize this variation and try to offer elements for different learners. In training, this also implies taking the individual growth, development and skill levels of the players into account, where development refers to all the dimensions of human, physical, social and mental maturity.

In Konu's model (2002), health is mainly seen through the health status, and in sports this strongly relates to injuries. Prevalent ice-hockey injuries include sprained joints, strained muscles, bruises, groin injuries, injuries to the head like dental injuries, and concussions. It has been found that the range of injuries is 4.6–74.1 per one thousand playing hours, depending on the type of the injury (Dryden et al. 2000; Emery & Meeuwisse 2001; Ferrara & Schurr 1999; Goodman et al. 2001; Honey 1998; Mölsä 2004; Pinto et al. 1999; Stuart & Smith 1995; Stuart et al. 2002). Because of the relatively high prevalence of injuries, junior ice-hockey clubs have a strong obligation to prevent and treat injuries.

The models of Allardt and Konu can be partially exploited for the health promoting sports club concept. Since their point of view is well-being and oriented toward the individual; the following models were needed.

### 3.4.2 Typology of sports clubs

Itkonen (1996; 2000) has compiled a typology which portrays the variation of sports clubs concerning their competition versus recreational/educational orientation. Sports clubs are divided into sports-performance and socio-cultural subtypes: the fundamental difference being that sports-performance clubs are competition-focused, whereas socio-cultural clubs focus on recreation. This distinction between the clubs' orientations may contribute to their interest in health promotion (Kokko et al. 2004).

Sports-performance clubs are involved in formal sports competition systems, and publicity-market oriented clubs portray contemporary top-sport clubs. In this case, traditional civil activity based activities are replaced by a business mindset where media and market are the primary factors. The club personnel are paid workers and different kinds of written agreements guide the activities. Competition-educational clubs emphasize the discipline, accurate preparation and competitive goals. The club organization has its own people for specific areas, such as coaching and finances. Sporting-recreational clubs are less oriented towards competition, and even though these clubs are part of the competition systems, their aims emphasise recreation/education.

Socio-cultural clubs aim at providing physical activity within a social atmosphere, where competitive success plays an insignificant role. For example, the main function of communal-experimental clubs is to provide experiences

through physical activity and the development of the community itself. Regional-sporting oriented clubs are based on certain social or physical surroundings, such as place of residence. In education-social clubs, physical activity or sport is used as a vehicle to realize other than sports-related goals.

Itkonen (2000) has stated that sports-performance and socio-cultural clubs are diverged more and more, especially regarding top-sport versus recreation, market-based versus civil-activity, and how new clubs are founded. It can be presupposed that these differences also influence the club's attitudes towards health promotion. Even tough, youth sports club activities are strongly influenced by competitive adult sport, more and more of youth clubs also recognise recreational sports (Koski 2009). Hereby, one could argue, that socio-cultural sub-type clubs are closer to the sports club activities of children and adolescents today. Hence, their potential, as stated earlier, to realize health promotion as part of their activities, are better than the potential of sport-performance oriented clubs. Health promotion can even be the main aim and function of the education-social clubs.

### 3.4.3 Preliminary criteria for a health promoting sports club

On the grounds of the Ottawa Charter and health promoting school concept, Kannas (2000) generated preliminary criteria for a health promoting sports club. These criteria consist of: 1) club management culture, 2) interaction between the club and parents, 3) networking, 4) goals of action, 5) intoxicant policy, 6) health education, 7) health education training of coaches and officials, 8) physical environmental factors, 9) health promoting coaching/instruction, 10) club health services, 11) health viewpoint in sponsorship, and 12) health barometer.

Kokko's (2005) interpretation of these criteria is, for example, that the club management culture has a substantial influence on the motivation of the entire sports club to pursue health issues. Homes and parents are important stakeholders in youth sports clubs, and they should be kept informed and interacted with, at least, on educational principles. Networking relates here to the health issues on which sports clubs could exploit the expert knowledge of health organizations. Also, collaboration with other sports clubs could serve common interests e.g. on issues regarding sporting facilities. The goals of action (the club's policies) determine the matters that are important for a certain club. Club policy, at the same time, guides the practice level. If a sports club wishes to be health promoting, this should be written into the club agenda, and a club's health promotion policy should include intoxicant guidelines not only for adolescents but for adults too.

Health education in sports clubs mainly involves coaches, but also other adults that interact with children and adolescents during club activities. The club's role is to ensure that health education is actively executed, and with this in mind, to be able to provide the aforementioned, the club should provide health-related training for the coaches and officials. This can be done by health-specific training or inclusion in the existing training systems. Physical environmental factors refer to sporting facilities in which sports club activities take place; the environment should be healthy and safe for all the users. Health promoting coaching/instruction imply a wider perspective than health education alone. This means for example, taking care of suitable nutrition during a tournament

or acknowledging the stages of adolescent development regarding strength training.

Club health services consist of both injury prevention and proper treatment. Injury prevention relates to the coaching practice once again. The coach's skills to recognize injury prevention activities are crucial, for example, injuries can be avoided or at least reduced through correct training, teaching of muscle care and proper safety guards, and the club's role here is to provide the above mentioned training, or co-operation with experts. Proper treatment starts right after an injury is suffered by the correct implementation of first aid, and obviously, together with the coaching skills, first aid equipment is needed. A club should assure that every coach and official has first aid skills and necessary equipment. In the case of a serious injury, a club should clarify and inform the coaches, officials and parents in advance on the care procedures, including insurance policies and local sports physicians. A club can make a contract with a local sports-specialized medical clinic to facilitate care. The aspect of health should be taken into account in sponsorship agreements, and a health barometer, in this context, means that a sports club evaluates its health promotion activities regularly.

# 4 HEALTH PROMOTION IN YOUTH SPORTS – EARLIER STUDIES

## 4.1 Sports clubs' health promotion policies and practices

Health promotion has typically been divided into two levels of activity, policy and practice. Youth sports clubs can be argued to have similar twofold dimensions concerning health promotion; from the administrative point of view, the policy level, and from the functional point of view, the practice level.

A health promotion policy signifies, as the Ottawa Charter (WHO 1986) stated "It is coordinated action that leads to health, income and social policies that foster greater equity. Joint action contributes to ensuring safer and healthier goods and services, healthier public services, and cleaner, more enjoyable environments." In sports clubs, the policy level signifies publicly established determinants or guidelines for the ways of action in the club. Or as VicSport (2008) has determined a sports club policy "A policy is a guide to action and decision-making under a given set of circumstances that assures consistency and fairness within the framework of your (sports clubs[2]) objectives and philosophy."

Health promotion practice refers to daily activities conducted by various practitioners. In a club, the practice level is directed towards the daily activities in which club officials like coaches operate with young athletes.

Policies have a guiding effect on the practice (Haug 2008), especially by written policies, a club states its sentiment to an issue in question and/or provides "how to act" type of guidelines for its officials and other participants. For example, Dobbinson et al. (2006) argued that sports clubs that had written policies concerning smoking, sun protection and nutrition were more likely to provide support to their members. The clubs with a smoke-free policy offered its members support to help them quit smoking, but they also had preventative actions in order to adopt non-smoking behaviour as an example. Health promotion policies are often too general by nature and therefore not effective in practice,

2 Author's remark

thus, more practical orientation for policies has been argued (de Leeuw 2007; IUHPE & CCHPR 2007).

In sports clubs, which are generally based on voluntary work, practice often has a dominant role. Casey et al. (2004) discovered that Australian youth football and netball clubs had executed several injury prevention actions in practice, but did not have formal safety policies. Parallel results concerning safety policies were arrived at by Finch & Hennessy (2000). A study by Donaldson et al. (2004) showed that the safety policies adopted and implemented by sports clubs varied between competitions and training, with safety issues better noticed during competitions.

Eime et al. (2008) found that health policies had not been conducted widely by sports clubs because of the limited capacity of the clubs, and lack of support by parent organizations. By contrast, Dobbinson et al. (2006) argue that several health promoting policies have been generated through sports clubs in the Victoria region, Australia. Although, variation within these policies was broad; one third of the clubs had executed policies related to smoke-free facilities, sun protection and sports injury prevention, almost half of the policies related to responsible serving of alcohol, and approximately one tenth of the policies related to healthy catering. Only two per cent of the clubs had policies covering all five areas. One prevalent factor here was that there were notably more often policies in a club in which the policy development was assigned to a certain individual. According to Hemphill et al. (2002) about two-thirds to three-quarters of the cricket, bowls and golf clubs had a written alcohol policy. Other alcohol-related policies were less common and varied between sports. For example, few respondents reported that their club was alcohol-free. Abbott et al. (2008) found that community sports clubs increased their level of safety activities through a risk management based safety-training program.

In general, regarding policy-level research, Priest et al. (2008a) found no controlled studies that would have evaluated the effectiveness of health-related policy interventions within sports organizations. With this notion, it can be generalized, similarly to Murphy & Kanost (2002), that sports clubs have paid attention to health promotion policies in various ways, depending on health topic, sports and the club in question. Furthermore, Hemphill et al. (2002) pointed out that Australian sports clubs had some policy-level activity, but concrete strategies and practices for implementation were missing.

In sports clubs, youths mainly operate with coaches. It can be said that health promotion practice mostly relates to the coaching practice. Generally, coaches are considered to be educators or instructors of the sports in question. On the other hand, a sports club as a setting, besides arranging sporting activity for youth, creates a social environment in which different kinds of positions of participation for youth, coaches and parents occur (Kirk & MacPhail 2003).

The coach's effect is substantial (Fraser-Thomas et al. 2005). For example, Dunn et al. (2001) argued that sports coaches had more influence on adolescents' attitudes towards supplement use than their teachers or their parents. Also, the coaches' behaviours had a clear effect on youths' intrinsic motivation to sports (Hollembeak & Amorose 2005). According to some studies, participation in sports and/or coaches actions (even though this learning sometimes occurs as a by-product of sport development coaching) affect the values, psychological skills and coping strategies (Libman 1998), sports-related rules, norm and pro-social

behaviour (Rütten et al. 2007), sportsmanship development (Ryska 2003) and social cohesion (Turman 2003). It also generates social capital i.e. feeling valued and feelings of trust and safety (Rowland 2006). Even though Brettschneider (2001) and Wigger (2001) argue that sports club-based activity does not only have positive impacts on the development of children and adolescents, a sports club should be considered, not only a place for sport, but a place in which youths are developing other features beyond sports (Priest et al. 2008b). Indeed, the idea of coaching life skills through sports has been widely acknowledged (Fraser-Thomas et al. 2005; Gould et al. 2007).

At the same time, a contradiction has been found between coaches' orientation to comprehensive athlete development, including non sport-specific skills (e.g. health), and emphasis on winning. Although coaches emphasized life-skills (social and moral development) in practice, winning a game was raised as a goal that guided coaching behaviours (Gilbert & Trudel 2004). Furthermore, Bengoechea et al. (2004) discovered that youth sports coaches saw fun and sports skills development as opposite objectives to each other, and coaches were often unaware of this incongruity between their values and behaviours. The competition emphasis has its effects on the health behaviours of adolescents. For example, one of the main reasons for sporting youth to use supplements like energy drinks or creatine was to improve sports performance (O'Dea 2003). The health behaviours of sports club participating youths are described in more detail in the subsequent chapter. In general, it should be noted, that competition and/or winning are not the primary reasons for the youth to participate in sports club activities (Allender et al. 2006; Coulon et al. 2001). Indeed, health and health-related matters have been stated to be more important factors for participation by the youths themselves (Koski 2005; MacPhail et al. 2003).

Similarly to above, sports clubs and coaches often emphasize health and health promotion as important principles of action, but still, only few clubs have health-related policies (Eime et al. 2008). In addition, despite the fact that the majority of the junior ice-hockey coaches considered health promotion to have a role in their coaching practice, they hardly carried out any kind of health education; only in four percent of the team events during one season. Moreover, this education was inconsistent and informal by nature (Kokko & Kannas 2004). According to Cunningham (2002), most of the youth soccer officials did not have any kind of first aid qualification, consequently, the officials did not have enough confidence to act on serious health issues, such as, asthmatic or diabetic problems. Koski (2007) on the other hand points out that almost all of youth coaches told that they had provided some information about substance-free or healthy lifestyle. However, there was a significant difference on how adolescents perceived the same. For example, a third of adolescents felt that substance-free lifestyle had not been discussed at all. In general, it can be argued that there is a clear contradiction between club-based and coach-related aims and practices realized.

Since the youths who participate in sports spend hundreds of hours during a season practicing sports under the supervision of a coach, the coaches should assume a more active role in health education and injury prevention (Koester 2000). Indeed, Bergeron (2007) argues that in youth sports, there are many factors that influence possible health benefits of the youths, many of these are due to coaches' actions, e.g. how the quality of exercise and also nutrition and rest related issues are

recognised. It has also been shown that health information increases knowledge but rarely influences behaviour (Elliot et al. 2004; Rolandsson & Hugoson 2000). On the other hand, in a study by Goldberg et al. (2000) a sex-specific and sports team-centred prevention program had several positive influences on adolescent male athletes' knowledge, attitudes and use of various substances.

It should be noted that peer influence is recognized in this thesis especially in the case of team sports. For example, Hansen et al. (2003) showed that athletes were more likely pressured by peers to do something they didn't want to do than non-sporting youths. Nevertheless, peer influence is not the focus in this thesis.

With a notion of policy having a guiding effect on practice, it can be argued that if a coaching practice is desired to have more health promoting orientation, the club's policies and practices should be examined and developed in that direction first.

## 4.2 Youth sports club participation and health behaviours

Health, physical activity and/or sports have a multifaceted interrelationship. An adequate amount of physical activity forms the basis for good health, but also vice versa, good physical, mental and social health is fundamental for sports performance and development in it. Most of the Finnish youth sports clubs have emphasized healthy lifestyle as an important ideal in their activities, and about two-thirds aim to invest more in health-enhancing physical activity in the near future (Koski 2009). At the same time, research results indicate that there are clear differences between sports club participating and non-participating adolescents in their health related attitudes, knowledge, behaviour and literacy. For some of the aspects, the difference is for favour to sports club participating youth, but there are also negative differences. These differences vary between genders.

A positive matter for sports club participants has been found in the level of physical activity (Vuori et al. 2004), although, Eiosdottir et al. (2008) argue that only one third of sports club participating youths meet weekly physical activity recommendations through sports clubs. Still, sports club participants have a higher level of overall physical activity than other adolescents (Sallis et al. 2000). Participation in organized sports club activities during childhood and adolescence has been found to predict physically active lifestyle in young adulthood (Kjønniksen et al. 2009) and in adult life, too (Tammelin 2003). In other words, physical activity performed outside school, participation in sports club activity and good grades in school physical activity education, and also discipline-specific factors like participation in ball games, intensive endurance sports, track and field, and combat sports were strongly associated with being physically active in adulthood (Tammelin 2003; Tammelin et al. 2003). Moreover, sports and physical activity was one motivating factor for boys to pursue a healthy lifestyle (McKinley et al. 2005). Sports club participants also smoke less (Haukkala et al. 2006; Melnick et al. 2001).

A sufficient level of physical activity is important for health, and there is a growing amount of evidence on the positive physical health benefits of physical activity (Biddle et al. 2004). Physical activity has also mental (psychological) (Penedo & Dahn 2005; Strauss et al. 2001) and social benefits (Rowland 2006). The

same is true in reverse; a low level of physical activity or participation in sports is associated with other negative health behaviours in adolescents (Iannotti et al. 2009; Nelson & Gordon-Larsen 2006; Pate et al. 1996).

On the other hand, sports club participants have a considerably higher risk of starting snuff use (Haukkala et al. 2006; Kannas et al. 2002; Rolandsson & Hugoson 2001) or using smokeless (chewed or dipped) tobacco (Melnick et al. 2001). Sports club participating youth have also been found to manifest heavy drinking behaviour more often (Kannas et al. 2002) and use more supplements and/or performance-enhancing drugs (e.g. Bents et al. 2004; Calfee & Fadale 2006; Dickinson et al. 2005). In general, adolescents, including athletes, had poor knowledge on doping issues (Wanjek et al. 2007). It has also been found that sports club participating youths experience a higher level of stress (Larson et al. 2006), and this stress is often related to the coaches' behaviour and emphasis on winning as stated in the previous chapter (Fraser-Thomas et al. 2005).

There are some inconsistencies in these findings. Many studies have discovered that adolescents who engage in sports club activities are less likely to use alcohol and drugs (Leaver-Dunn et al. 2007; Piko & Fitzpatrick 2004; Pitkänen 2006; Thorlinsson & Bernburg 2006). Thorlinsson and Bernburg (2006) also found that the effect of alcohol and drug-using peers weakens when involvement in sports clubs strengthen. Wanjek et al. (2007) found that, concerning the substances prohibited by WADA (World AntiDoping Agency), non-athlete adolescents used these substances five per cent more than recreational athletes, and almost three times more than competing young athletes.

There are several factors that possibly explain the above inconsistencies. First of all, the sports system varies between countries, even at the European level. This has an explicit influence on what is considered as sports club activities i.e. school or college sports clubs in the US versus voluntary-based sports clubs in Europe and especially in Finland. Second, gender differences have been found: Girls tend to act in more positive ways regarding many health behaviours (Kannas et al. 2002; Koski 2005). The third possible explanation partly relates to the previous one. First of all the relationship between substance use and sports depends on the sport in question (Moore & Werch 2005; Paretti-Watel et al. 2002), for example, between team and individual sports. In team sports, the closeness of peer groups or team mates often results in peer pressure, which may influence, either positively or negatively, the individual choices and behaviours of adolescents concerning substance issues (Thorlindsson 2005). At the same time, some team sports disciplines, like ice hockey and soccer, have characteristics that strongly relate to the dominance of males through features of masculinity. Masculine features in sports are often found to have negative affects on health behaviours, like alcohol use (Robertson 2003), but sometimes also positive (De Visser & Smith 2007). Fourth, the frequency of participation has its effects. For example, Rodriguez and Audrain-McGovern (2004) found that adolescents with limited team sport participation had three times higher risk of adopting regular smoking behaviour than adolescents who regularly participated in team sports. Also, in the results by Koski (2007) those adolescents who participated actively in sports club activities had received more health-related messages by the coaches, than those participating every now and then or not anymore. Fifth, Gilbert & Trudel (2004) argue that according to the coaches themselves, youth sport coaches and their coaching behaviours vary between the age-groups and

levels of competition, or between competition and recreational sports, and maybe between genders.

In summary, the above research results demonstrate that from the health promotion point of view, participation in youth sports alone is not enough (cf. Bergeron 2007), and positive health outcomes are not automatic (Fraser-Thomas et al. 2005). There are both positive and negative characteristics in the health behaviour of sports and sports club participating youth in contrast to their non-participating peers. The paradox between health being an important value and principle of clubs and these negative health behaviours of the participants prove the scarcity of investment in health promotion by the clubs and coaches.

# 5 SPORTS CLUBS' OBLIGATIONS AND OPPORTUNITIES IN HEALTH PROMOTION

Youth sports clubs have many characteristics that make them potential settings for health promotion, as demonstrated in the previous chapters. Derived from the preceding literature review and within the context of youth sports clubs, the clubs can be seen to have both obligations and opportunities concerning health promotion (cf. Kokko 2005). It should be noted that since almost all of the Finnish sports clubs are based on non-profit voluntary associations, obligations are more moral and ethical by nature than based on strict obligations, such as laws and regulations.

## 5.1 Obligations

The first obligation is due to the financial support provided by the government to sports federations and by the municipalities to clubs. In this respect, sports federations and sports clubs have a semi-official status (Heikkala 1998). Voluntary organizations also serve as mediators between individuals and the state (Koski 1994; Rütten et al. 2008). As compensation for this financial support, the public administration can expect sports federations and clubs to recognize health promotion within their activities. The semi-official status of the sports federations and clubs can be understood to have an obligation to recognise their role in health promotion and execute some activities to prove this. The informal educational nature of the sports clubs offers the clubs good opportunities to implement effective health promotion for children and adolescents, as mentioned earlier, and will be referred to later.

The second obligation arises from the fundamentals of voluntary activities and from the history of the Finnish sports clubs. Voluntary activities should contribute to the needs of its participants (Thiel & Mayer 2009). In sports clubs, this does not always happen, and within the same club, there might even be inconsistent aims. Success in competitions may direct the club's activities away

from the wider recreational emphasis (Gilbert &Trudel 2004; Heikkala & Koski 2000; Itkonen 1996; 2000; Koski 2000a). This may, at the same time, influence attitudes towards health promotion and make it feel as if it is an outside demand. Health promotion within sports club activities most likely has a supportive effect on sports performance at all levels (see fourth opportunity below). On the other hand, several Finnish sports clubs were founded for some other reason than purely for sports. Sports clubs were diverged from labour associations, temperance societies etc., in which sport was a vehicle through which other ideological values were pursued. These ideologies, especially temperance, still remain (Ilmanen et al. 2004; Itkonen 1996; 1997b). A non-drinking, honest and vigorous person has been, and continues to be, the paragon of a sportsman, especially in junior sport.

The third obligation is derived from the previous. There is a paradox between the operational principles of youth sports clubs and the health behaviours of the participating youth. Youth sports club activities have justified their existence through benefits for individual and communal growth and the education of adolescents, including health issues (Heikkala & Koski 2000). Moreover, the majority (81% in 2006) of the Finnish junior sports clubs have stated that healthy lifestyle is an important goal of their activities (Koski 2009). However, there is some evidence that these terms of reference have not been converted to practical actions in coaching (Kokko & Kannas 2004). Research results also indicate that sports club participating youth manifest more prevalent substance misuse of snuff or smokeless tobacco, heavy drinking, high use of supplements and misuse of performance-enhancing drugs (Bents et al. 2004; Calfee & Fadale 2006; Dickinson et al. 2005; Haukkala et al. 2006; Kannas et al. 2002; Melnick et al. 2001; Rolandsson & Hugoson 2001).

The fourth obligation is due to the relatively high risk of sports injuries as demonstrated under junior ice-hockey earlier. Despite the fact that every discipline has its own specific risk determinants, it can be concluded that when the level of physical activity increases, the risk of different kinds of injuries, e.g. musculoskeletal injuries, also increases (Parkkari et al. 2004; 2008). Injuries, moreover, are a major matter, even a crisis for a developing youth, with both physical and mental effects. Thus, sports clubs have at least a moral obligation to invest in both injury prevention and proper and comprehensive treatment of injuries.

## 5.2 Opportunities

Four opportunities for youth sports clubs as a setting for health promotion can be found. First, sports club activities attain a large number of children and adolescents in Finland. Second, the educational nature of sports clubs is informal, when youths participate in activities voluntarily. This allows more freedom to carry out health promotion than in the school setting. Health issues can be linked to a specific discipline and this could interest children and adolescents more. Third, youth sports coaches are important authority figures for adolescents. Thus, they have a great potential to promote health issues if so desired. Coaches' influence can be either conscious or unconscious; this unavoidable effect should be recognized, or

else the coaches' and other officials' example is not acknowledged and may have a negative influence on adolescents' health choices and behaviour.

The fourth opportunity is twofold: together with creating grounds for general health literacy development, health promotion activities also support the main goal of sports. It is evident that health and healthy lifestyle (balanced diet, enough sleep, balance on exertion and rest, non-use of substances etc.) have a positive impact on the development of sports performance. This could be imagined to be of interest to all the coaches. Indeed, 90% of Finnish junior ice hockey coaches stated that health education belongs to junior ice hockey and they would like to include more health education in coaching activities (Kokko & Kannas 2004). This indicates that, at least in junior ice hockey, the soil is fertile for health education and health promotion.

These obligations and opportunities were derived from literature and theory review. The current situation of health promotion activity of youth sports clubs in Finland will be described subsequently through research results of this thesis.

# 6 AIMS OF THE STUDY

The purpose of this study was two-fold. First, the study explored the frame of reference for the health promoting sports club and aspired to determine the most relevant standards for the concept. Second, in the Sports Club Survey, the study aimed to describe the general health promotion orientation and guidance activity of youth sports clubs. Also, coaches' health promotion activity was examined. As an outcome, the study illustrates the theoretical framework and presents a typology of standards for the health promoting sports club concept. It also offers a descriptive overview on the health promotion activities of youth sports clubs and coaches in Finland. The specific research questions for the study were:

1) What kinds of theoretical elements are relevant for defining the frame of reference for the concept of health promoting sports club? (I)
2) Which standards the experts from health promotion and sports clubs evaluate as the most vital for the health promoting sports club? (II)
3) How health promoting is the general orientation of Finnish youth sports clubs, what portion of the clubs is higher health promoting by orientation, and are there differences between clubs? (III)
4) To what extent do youth sport clubs guide their coaches to recognise health promotion as a part of coaching practice, what proportion of the clubs is active in contrast to domains of guidance, and are there differences between clubs? (IV)
5) How frequently have the coaches implemented health promotion as a part of coaching practice by their own account, and how do young male athletes perceive the same?
6) Is there an association between clubs' health promotion profile and guidance activity and further between clubs' guidance activity (club officials) and coaches' health promotion activity (coaches themselves and young male athletes)?

The Roman numerals within brackets apply to the original articles listed on page 9. Research results concerning the last two research questions have not been previously published.

# 7 METHODS

## 7.1 Delphi Study

### 7.1.1 The Delphi method

The Delphi method is a data collection method that targets group consensus on the specific issue in question (Hasson et al. 2000; Linstone & Turoff 2002). The method operates through a panel or panels of experts and has three principal advantages (Adler & Ziglio, 1996; de Villiers et al. 2005; Kuusi et al., 2000; van Teijlingen et al. 2006; Williams & Webb 1994). First, anonymity, which refers to the experts giving their opinion without knowing the other panellists. Therefore, it can be assumed that the experts portray their true opinions on and perceptions of the issues under examination. Second, iteration, which means that in the Delphi studies, several rounds (generally two to four) of questions is used. Third, feedback, which indicates the feedback given to the experts on the results of the previous rounds (group opinion). The Delphi method has been proved an effective method in various fields of health-related studies (de Villiers et al. 2005; Graham et al. 2003; Katcher et al. 2006; van Teijlingen et al. 2006), especially in nursing (Bäck-Pettersson et al. 2008; Duffield 1993; Keeney et al. 2006; McKenna 1994; Williams & Webb 1994).

The Delphi method has been applied in various ways, such as interviews, questionnaires, Internet-based discussion forums, or a mixture of such means. When a questionnaire method, like in this thesis, has been adopted, the implementation has been quite diverse. For example, questionnaires have varied between a completely open-ended to completely structured type, or a mixture of the two types has been used (Jones & Hunter, 1995; Neutens & Rubinson, 2002; Scheibe et al., 2002). Furthermore, the data gathered by the method has been analyzed by both quantitative and qualitative methods (de Villiers et al. 2005).

### 7.1.2 Study design

The purpose of the first empirical stage of the study was to specify the vital standards for the health promoting sports club concept. This was done by the Delphi method in which the aim was to generate a consensus of the most relevant standards among two expert groups. Expert selection was done by the researcher. The aim was to find balanced groups of experts in both health promotion and youth sports club activities with special expertise in the field in question. Health promotion experts (n = 11) were mainly researchers and state or association officials who worked within health promotion. Similarly, sports club experts (n = 16) were agents for the sports sector from national federation level to local sports club level. The main focus of all sports club experts' work was on youth sports club activities. The sports club experts represented six of the predominant youth sports in Finland (soccer, ice-hockey, floor ball, track and field, cross-country skiing and swimming). Predominant position of the sports in question is based on the quantity of young participants in sports clubs, excluding woman gymnastics (Svoli) (SLU 2006a). In its entirety, a total of 27 experts (varying from 24 to 27, depending on the round) participated in the study.

Over half of the experts were male, most of the experts had an academic degree; six held a doctorate and ten a master's degree. The others had a college or comparable degree. Two-thirds had a job description of a nationwide perspective, and the same number had more than six years of working experience in their present positions. According to self evaluation, the experts had high-grade expertise on health promotion and sports club activities (Table 3).

TABLE 3 Background information of the participants of the Delphi Study (n=27) (HP=Health Promotion experts; SC=Sports Club experts) (Kokko et al. 2006).

| **Gender** | **HP (f)** | **SC (f)** | **Total (f)** |
|---|---|---|---|
| Male | 6 | 10 | 16 |
| Female | 5 | 6 | 11 |
| **Children's sports club participation** | | | |
| Yes | 5 | 13 | 18 |
| No | 1 | 1 | 2 |
| No children | 5 | 2 | 7 |
| **Experience in health promotion** | | | |
| Very much or Much | 10 | 9 | 19 |
| Some | 1 | 6 | 7 |
| Little or None | 0 | 1 | 1 |
| **Experience in sports club activities** | | | |
| Very much or Much | 7 | 16 | 23 |
| Some | 2 | 0 | 2 |
| Little or None | 2 | 0 | 2 |

The Delphi process (Figure 1) began with a preliminary stage in which the researcher created 64 standard proposals based on existing theory and literature, like the Ottawa Charter (WHO, 1986) and criteria of Kannas (2000). Thereafter, the data was gathered through electronic questionnaires which were sent to experts and returned through email. In the first and second rounds, mainly structured questions and a 4-point Likert scale were used. In addition, in the first round, the experts had the possibility to insert new standard proposals. During the first two rounds, the experts evaluated a total of 81 standard proposals. As the outcome of the first two rounds, very important standards were ascertained. The aim of the third round was to bring out the most important standards among the very important ones, as well as to evaluate the feasibility of the third round standards.

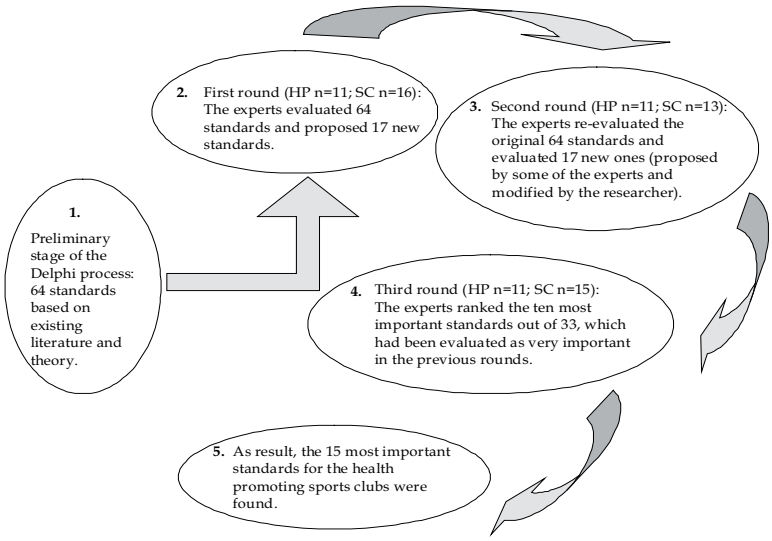


FIGURE 1 Study design and progress (HP=Health Promotion experts; SC=Sports Club experts) (Kokko et al. 2006).

### 7.1.3 Statistical analysis

Since no standards were eliminated after the first round, the second round answers were the main focus in the analysis. The first round results were used to give feedback to the respondents before the second round and to verify the results of the second round. Similar statistical procedures were used for the first two rounds.

The second round data was reviewed by frequency distribution. Expert responses were graded as follows: 'very important' = 3, 'important' = 2, 'less important' = 1 and 'not important' = 0. The two expert group answers were combined into one data set, and the mean value of all the respondents calculated under each standard proposal. The order of importance of the standard proposals was dissected by the per cent distribution of the combined answers. For example, 'very important' standards had to represent more than 50% of all the answers. However, seven standards were added to the list of 'very important' standards on

the basis of a strong expert opinion i.e. high mean values and per cent distribution (a proportion in excess of 50%) in one expert group.

In the third round, the experts only evaluated the standards proposals that had emerged as very important in the first two rounds. The experts first selected the ten most important standard proposals which they preferred out of the very important ones. They then ranked these ten in order of importance on a scale of 1 to 10. The points for each standard were allocated as follows: 10 points for each number 1 ranking, 9 points for each number 2 ranking, continuing to 1 point for each number 10 ranking. If a standard proposal did not occur in the top ten, a value of 0 was given.

After individual expert ranking, a mean value of all the experts was calculated from the sum of the points for each standard proposal. Thereafter, standard proposals were laid in order of importance. The intersection was drawn to the value of 2.0. This meant that the standard whose sum mean value was or exceeded 2.0 was among the most important ones. At the same time, the standard whose sum mean value was below 2.0 was eliminated.

The feasibility of standard proposals was analyzed from the answers of round three, and the mean value was used as the measure of central tendency for these analyses. The data were entered and analyzed with SPSS 12.0 software.

## 7.2 Sports Club Survey

### 7.2.1 Sampling procedures

One hundred and twenty youth sports clubs from four sports disciplines (soccer, ice-hockey, track and field and cross-country skiing) were pursued in the survey, thirty from each discipline. Sampling was done in co-operation with the heads of youth sports of each national federation for these disciplines. The sample was defined in a two-stage process, first the clubs, second the respondents.

The club sampling procedure was started by dividing the clubs in clusters (cluster sampling): 1) larger and smaller, 2) certified and non-certified[3], and 3) geographical location (South, North, East and West). This was done for each discipline separately. Thereafter, to ensure objective sampling of the clubs, discretionary, not randomised, sampling was performed. Thirty clubs were selected from each sport and the total sample consisted of 120 youth sports clubs.

Following the club sampling, the respondents were determined, this was done in co-operation with a contact person from each club. Five club officials, five coaches and at least five young male athletes from every club were aimed at. Eventually, the number of officials and coaches was adjusted to at least two respondents from each group. The number of the athletes was adjusted club-specifically, varying between team and individual sports. Because of more 14 to

3 Certification (Seal) relates to the Young Finland Association, the national organisation for children and adolescents sports in Finland. To be certified, a club must fulfil nine criteria of which some have relation to general educational orientation of the clubs e.g. how comprehensively educational matters are recognised with relation to physical activity (Nuori Suomi, 2006).

16 years old boys in team sports generally, athletes from only twenty team sports clubs were taken along. Of the young athletes, only male athletes were included. This was done to reduce moderating factors, which already existed through club-based variables, and because of the fact that more boys participate in sports club activities than girls, especially in the team sports concentrated on in this study.

The identity of the respondents was based on the titles, not on the names. The criterion for being a club official was that the person held an official status, such as chairman of the club, member of executive committee or head of coaching or junior activities, in the club. The criterion for coaches was that the person in question was currently coaching 14-16 years old youths, mainly boys. Athletes had to be male and aged between 14 to 16 years old. No other limitations, such as what the discipline in track and field or level of competition should be, were drawn. But in a case of several teams for fifteen years old boys in the same club, only the highest level team was included. In this way heterogeneity within team sports was assured.

### 7.2.2 Data collection

The data collection was carried out through a survey and entailed a questionnaire study. To ensure as identical circumstances as possible for winter and summer sports clubs, the data was collected in two parts. Winter sports clubs data was gathered in March-April 2007 and summer sports clubs in August-October 2007. The clubs were contacted first by phone to find out if the club in question would participate and who would be an appropriate contact person.

Together with the contact person, specific details, such as who would participate from each target group, how the questionnaires would be delivered and where they would be filled in were settled. Anonymity was ensured by the protocol; the questionnaires were distributed to the respondents through the contact person, and the respondents answered the questionnaires anonymously. The club officials and coaches mainly answered the questionnaires at home, whereas young athletes filled in the questionnaires before or after a training session in joint and supervised situation. When a sufficient number of questionnaires (was agreed club specifically) were returned to the contact person, he/she returned them to the researchers. The club's background information questionnaire was returned at the same time.

### 7.2.3 Measurement

The questionnaires, used in the survey, were unique for each respondent group, but consisted of some of the same questions. The first part of the questionnaires concentrated on the background information of the respondents, such as gender, year of birth, educational level, position and experience within the sports club (Appendix 1).

The second part of club officials' and coaches' questionnaire contained a question battery that focused on the sports club's general health promotion orientation i.e. the club's health promotion profile and was used in Article III. The question battery was composed of twenty two items that were in exactly the same format as the standards for the health promoting sports club and similar for both the respondent groups. The sports club officials and coaches were asked to

evaluate "To what extent, in your opinion, do the following alternatives describe your club's activities during the ongoing season?" under each of the items. A 5-point Likert Scale in which 1=does not describe the club at all, 2=describes the club very little, 3=describes the club to some extent, 4=describes the club well, and 5=describes the club very well, was used for the answers.

The third part of the club officials' and coaches' questionnaire dealt with health promotion as part of the coaching practice. The orientation of the questions that followed depended on whether the respondent was a club official or a coach (Appendix 1). The sports club officials mainly evaluated the extent to which the sports club had guided coaches to recognize and execute health promotion. The coaches evaluated the extent to which they had recognized and executed these activities. The youth questionnaire, was focused on the coaches' health promotion activity, this immediately followed the background questions. The emphasis in the youth questions was on their perceptions concerning the coaches' activity in health-related issues. The club officials' answers in part three were used in this thesis to evaluate the clubs' guidance activity. The coaches' and youths' evaluations were used together with club officials in order to answer the latter two research questions.

In article IV, the club officials' answers under three question batteries were used. The question batteries related to the extent to which the club had guided coaches to recognize health promotion as a part of the coaching practice: 1) concerning sports performance (practices/competition), and 2) non-performance time. The third question battery related on how much the clubs had encouraged the coaches to discuss various health topics with young athletes.

The first question battery concentrated on health promotion during practices/competition and the question used was "To what extent has your club guided coaches to recognise the following matters during the sports performance, i.e. practice/competition and/or while planning it?"

The second question battery was directed on health promotion during non-performance time spent in club activities with the question "To what extent has your club guided coaches to recognise the following matters during non-performance time within club activities, i.e. other time than practice/competition, such as locker room or excursion activities?"

The third question battery focused on several health topics. The question was: "To what extent has your club guided coaches to recognise at least the fundamentals of the following health topics?" Under the first battery, there were twelve, and under the second fourteen claims for the club officials to evaluate. Thirteen health topics were covered. A 5-point Likert scale, where 1=not at all, 2=to some extent, 3=moderately, 4=much and 5=very much, was used under all the question batteries.

Concerning the two latter research questions of this thesis, the coaches' and young male athletes' evaluation on the coaches' health promotion activity was also included. The same three question batteries were used as in the questions on clubs guidance activity. The difference between the respondent groups was on different emphasis of the questions as stated earlier, in addition in the youth questionnaire, answer alternatives were different concerning the first and second question batteries. There were fewer claims in the youth questionnaire concerning the first and second batteries. Thus, only ten claims under the sports

performance and twelve claims under non-performance batteries were used here. Health topics were covered to the same degree for every respondent group.

In order to verify the background information of the clubs, another questionnaire was used (Appendix 1). This questionnaire consisted of nine questions regarding the club in question e.g. whether the club was a general club or specialised in one sport, what the discipline of the club was, if the club was certified or not, and what the membership was. This questionnaire was sent to the contact persons only.

### 7.2.4 Description of the data

From the sample of 120 clubs, 97 (81%) clubs participated in the survey, and 74 (74%[4]) clubs had respondents from every respondent group. Participating clubs represented the population equally (Table 4). Half of the clubs were "general clubs" with several disciplines, the other half specialised in one sport. Different disciplines were represented quite evenly with approximately a quarter proportions, of which about half were team and the other half individual sports clubs. Small, average and large clubs were represented rather equally. Slightly fewer of the clubs were certified than non-certified.

A total of 273 sports club officials, 240 coaches and 646 young male athletes acted as respondents. The response rate was almost impossible to calculate, due to the fact that many contact persons simply did not know, for example, how many coaches of 14 to 16 years old youths there were in the club. Hence, extra questionnaires were sent, of which some were not needed. Therefore, it was impossible to estimate how many of the questionnaires were for real persons. As to the analysis, the clubs' participating rate was found to be more fundamental.

Almost three fourths of the officials, and the majority of coaches, were male. Most of the club officials and coaches were married or lived in a common-law marriage, and two-thirds were 30-49 years old. Four fifths of the adult respondents had children, and most of them stated that at least one of their children participated in the sports club activities of some club. The educational background of half of the coaches was upper secondary school, the rest held either 2-year post secondary or university degree. The club officials' educational background was distributed rather equally between upper secondary, 2-year post secondary & Bachelor's level education, and Master's level education.

The sports club officials were chairmen of the club or of the executive committee (10%), members of the executive committee (34%), head of coaching or junior activities (20%), or they held other positions, e.g. executive managers (36%). Nearly two thirds of the coaches were head coaches for their athletes, the others were assistant coaches or alike. The coaches had a long experience in coaching: 71% of them had coached for four years and over, and half at least seven years. Two thirds had coached their current athletes for at least three years.

Young athletes were all male. Most (58%) of them were born in 1992, and the rest in either 1991 or 1993. Two thirds had joined sports club activities before the age of eight. The athletes represented different sports as follows: 33% participated in ice-hockey, 36% in soccer, 17% in cross-country skiing and 14% in

4 The youths' answers were desired from 100 clubs, 30 individual and 20 team sport clubs per discipline. Thus, it was possible to get questionnaires back from every respondent group only from these 100 clubs.

track and field. Most (87%) of the youths had at least three training or competition events per week. Over two thirds competed on local or regional levels and every fourth on the national level. Less than one per cent did not participate in any competitions. The majority (70%) had either two or three coaches.

All the participating clubs returned the club background questionnaire (Table 4). In all cases, it was filled in by the contact person for the club.

| | Officials | | Coaches | | | Clubs |
|---|---|---|---|---|---|---|
| | % | f | % | f | | % |
| **Gender** | | | | | **Scope of disciplines pursued** | |
| Male | 71 | 189 | 87 | 198 | Clubs specialised in one sport | 50 |
| Female | 29 | 78 | 13 | 29 | General club (several sports) | 50 |
| **Age** | | | | | **Size of the clubs** | |
| Under 30 | 7 | 20 | 11 | 26 | Small | 33 |
| 30 to 49 | 64 | 174 | 67 | 161 | Average | 33 |
| 50 and over | 29 | 79 | 22 | 53 | Large | 34 |
| **Marital status** | | | | | **Team versus individual sports** | |
| Marriage/Common-law marriage | 84 | 229 | 80 | 187 | Team sports clubs | 48 |
| Single/Divorced | 16 | 44 | 20 | 48 | Individual sport clubs | 52 |
| **Children's sports club participation** | | | | | **Young Finland's Certification** | |
| Yes | 81 | 210 | 79 | 175 | Certified | 43 |
| No or No children | 19 | 51 | 21 | 48 | Non-certified | 57 |
| **Education** | | | | | **Disciplines of the clubs** | |
| Upper secondary education | 38 | 102 | 51 | 121 | Soccer | 26 |
| 2-year post secondary & Bachelor's level education | 36 | 99 | 23 | 54 | Ice-hockey | 22 |
| Master's level education | 26 | 72 | 26 | 61 | Track and field | 27 |
| | | | | | Cross-country skiing | 25 |

TABLE 4 Background information of the respondents (sports club officials n=248-273 and coaches n=223-240) and sports clubs (n=97) (Kokko et al. 2009a).

### 7.2.5 Statistical analysis

For Articles III and IV, different portions of data were used; article III consisted of both club officials' and coaches' answers, but Article IV only included the club officials. Concerning the last two research questions all three respondent groups' data were included. Hence, specific data analyses were executed.

Article III, the sports clubs' general health promotion orientation i.e. profile analysis, was started by reviewing the frequency and percentage distributions. Associations between variables were examined by basic methods, such as cross-

tabulation and a Chi-square test. Within further analysis, a Health Promoting Sports Club Index (HPSC Index) was created. This was done by calculating first a mean value of the answers of all the respondents from the same club. The HPSC Index represents an average situation of a club instead of a single respondent opinion. This procedure was done also because the reliability i.e. Intraclass Correlation Coefficient (ICC) values between several respondents from the same club was noticed to be rather low. Thereafter, another mean value was calculated from club-based HPSC Index values to describe general health promotion orientation of all the clubs. During the creation of the HPSC Index, the original five-point scale was reduced to a two-point scale, in which a value of zero was given to the answers from "Does not describe the club at all" up to "Describes the club to some extent" and a value one to answers "Describes the club well" and "Describes the club very well". Hence, the range of the HPSC Index is between zero and twenty-two. The internal consistency of the HPSC Index was dissected by Cronbach's alpha-coefficient and it was .89.

In the subsequent stages, the clubs were split into three categories depending on their health promotion profiles. The clubs that scored ≥ 15.00 were named as higher health promoting. Similarly, the clubs that got a HPSC Index value of 11.00-14.99 were named as moderately health promoting, and the clubs that scored <11.00 as lower health promoting.

The HPSC Index was also formulated on Sub-indices by exploratory factor analysis. A four-factor model was the optimal (Table 6), when communalities, eigen values and total variance explained (58%) supported this option (Appendix 2). A .3 cut-point was used for factor loadings (Metsämuuronen 2003; Nummenmaa et al. 1997). One claim got a loading below this limit, but it was still included to the factor in question because of the content value. This solution was supported by relatively high communality of the claim (.407) and high Cronbach's alpha-coefficient value for the factor (.82). The factors were transformed to Sub-indices and named as 1) Policy Index (range 0-8.00); 2) Ideology Index (range 0-2.00); 3) Practice Index (range 0-7.00) and 4) Environment Index (range 0-5.00). The Cronbach's alpha-coefficient values for these Sub-indices were .76 (Policy Index), .85 (Ideology Index), .82 (Practice Index) and .62 (Environment Index). The Sub-indices were also divided into three categories. See the cut-point for higher, moderately and lower health promoting under each Sub-indices in Table 7.

In Article IV, the analyses of sports clubs health promotion guidance activity, was started by compiling the club officials' answers under their clubs. Concerning the percentage distribution, the five-point Likert Scale was reduced to three categories by combining the two middle categories into one category "Some", and the two active-end categories into category "A lot". For further analyses, the answers were re-coded from a five-point original scale to a two-point scale. A value of zero was given to the answers from "not at all" up to "moderately" and a value one to answers "much" and "very much". Again, the results represent a club's point of view and the mean value of all the respondents from the same club is used.

Under all three question batteries, single claims were formulated to sum variables by exploratory factor analysis. A single-factor model was the optimal in all cases. The Cronbach's alpha-coefficient values for these factors were .94, .95 and .96. The factors were converted to sum variables and named as 1) health promotion during practice/competition, 2) health promotion during non-

performance time, and 3) health topics. These sum variables represent different domains of guidance activity within sports club activities. At the later stages of the analysis, the clubs were divided into three categories: passive, fairly active and active on guidance under each domain. This was done by 33% splitting. The cut-off points, for the "health promotion during practice/competition", were <6.33 for passive, 6.34 up to 8.75 for fairly active, and ≥ 8.76 for active clubs. For the second domain "health promotion during non-performance sports club time", the cut-off points were <3.33 for passive, from 3.34 up to 5.00 for fairly active, and ≥ 5.01 for active clubs. And concerning the third domain, "health topics", the cut-off points were <2.67 for passive, 2.68-6.00 for fairly active, and ≥ 6.01 for active clubs.

The same club-based background variables were used to examine associations under HPSC Index and guidance activity. The club-based background variables used were 1) general and one discipline, 2) certified and non-certified, 3) team and individual; and 4) different size (larger, average and smaller) sports clubs. For the fourth background variable, the clubs' distribution into three categories (large, average and small) was done by different cut-off points for team and individual sports. The cut-off points for team sports clubs were 80-350 participants for small, 351-565 for average, and ≥ 566 for large. The equivalent cut-off points for individual sports clubs were 30-140 participants for small, 141-430 for average, and ≥ 431 for large.

In Article III, the associations between HPSC Index and background variables and differences between the club officials' and the coaches' perceptions were examined by an adjusted model of logistic regression. In analysing associations between guidance activity and background variables in article IV, first the Chi-square test and thereafter the logistic regression with and without adjusted model was used.

Concerning the associations between clubs' health promotion profile and guidance activity, both cross-tabulation with the Chi-square test and adjusted model of logistic regression was used. On the HPSC Index, two low-ranging categories were fused into one. The guidance activity categories remained the same three-categories as at the earlier stages, except under health topics. There two low-ranging categories needed to be united as one because unacceptably high confidence intervals with three-categories.

Concerning other association examinations within fifth and sixth research questions, there were 74 clubs that had respondents from all three groups, only these clubs were concentrated on. Again single respondent evaluations were transformed into a club-based mean value. The analyses were started by percent distributions and Chi-square test. Thereafter, sum variables were created under three domains of guidance/coaches' activity for each respondent group separately by factor analyses. In order to be able to compare various domains of guidance/coaches' activity between all three respondent groups, single factor models were pursued. The Cronbach's alpha-coefficient values for these factors varied between .76 and .95, except for the club officials' third domain – Health Topics (.52). It was still included in the analyses because of the content relevance. The differences between the respondent groups were explored by logistic regression. A 33% splitting was done under all sum variables and for every respondent group. All the data analyses were done with SPSS version 15.0 and a 95% confidence level employed.

# 8 OVERVIEW OF THE RESULTS

## 8.1 Standards for the health promoting sports club (Article II)

The Delphi Study consisted of three rounds. At the preliminary stage, the researcher had created 64 standard proposals for experts to evaluate in round one. The panellists evaluated 23 of these proposals as very important, 36 as important, and 5 as less important. At the same time, the experts proposed 17 new standards to be evaluated in the following round. Majority of the new standard proposals related to clubs substance policies (5), health services (4) and social and mental factors within club activities (4).

During the second round, the experts evaluated all 81 standard proposals. Of these, 26 were ranked as very important by both expert groups. Furthermore, two standard proposals were evaluated as very important only by the sports club experts, and five only by the health promotion experts. Sports club experts pointed out the importance of individual growth and development and coaches' interaction skills, whereas health promotion experts highlighted the importance for alcohol advertisement prohibition, equality and evaluation. Despite this disagreement, these standard proposals were included in the very important classification. Compiled, 33 standard proposals were evaluated as very important, 41 as important, and 7 as less important after two rounds. Very important evaluated proposals at round two included all the same proposals that were evaluated as very important at round one.

The very important evaluated standard proposals at the first two rounds had many health promotion contents. The experts underlined seven separate standard proposals pertaining to both clubs substance policies and social and mental factors. Substance-related proposals for example stressed that a club should have regulations for both adults and adolescents and that these regulations should be in a written form. There were also six proposals relating to health promotion within coaching practice. Main emphasis was on proposals that simply pointed out that health promotion should be a part of sports performance-related coaching practice, but also a part of non-performance related time spent in club activities.

Other very important extended proposals included clubs management system, health service, interaction between a club and parents, physical environment, health promotion evaluation and sponsorship relating standards.

There were also many standard proposals that were excluded from the very important list. For example, according to expert opinions at round two the following standard proposals were less important in youth sports club setting: "It is discussed about the male or female ideal in the club", "The club collect information about the health status of participating children and adolescents", "The club collect information about the health status of coaches and officials", "The club string banners with health topics across the walls of its facilities" and "The club collect and maintain health-based data bank for its actors".

For the third round, only the 33 previously identified very important standards proposals were included. The experts then selected ten out of these 33 as the most important ones and ranked the ten in order of importance on a scale of 1 to 10. Eleven out of 33 was evaluated as the most important ones by both the expert groups. Four other most important ones were included because of strong emphasis by one or other of the expert groups (Table 5). In total, fifteen standard proposals were evaluated as the most important ones by the experts (see the content of these standards from Table 5).

The experts also evaluated the feasibility of the most relevant standards (Table 5). In general, the experts reflected that the standards would be quite difficult to implement, and only four standards were seen as somewhat easy to implement in youth sports clubs.

TABLE 5 Classification of the most important standards for health promoting sports clubs and the feasibility of the standards (range 1-4 from very difficult to very easy) by the experts on Delphi (HP=Health Promotion experts; SC=Sports Club experts) (Kokko et al. 2006)

| **Standards for a health promoting sports club** | **Total** | **HP** | **SC** | **Feasibility** ($\bar{x}$) |
|---|---|---|---|---|
| Health promotion is part of coaching practice. | 1. | 1. | 2. | 1.76 |
| Coaches and other officials give a good example through their own behaviour. | 2. | 4. | 1. | 1.92 |
| The sports club's regulations have a written section on well-being and/or health promotion and/or health education and/or healthy lifestyle. | 3. | 3. | 5. | 2.56 |
| The sports club promotes the "fair play" ideology. | 4. | 5. | 3. | 1.96 |
| Health and well-being viewpoints are observed in the sports club's decision-making process. | 5. | 2. | 16. | 1.88 |
| The sports club pays particularly attention to coaches'/ instructors' interaction skills. | 6. | 18. | 4. | 1.41 |
| The sports club promotes individual growth and development. | 7. | 8. | 7. | 1.32 |
| In coaching, there is a health promoting element also beyond sports performance (within the sports club's activities). | 8. | 9. | 8. | 1.76 |
| The sports club promotes the "everyone plays" ideology. | 9. | 7. | 11. | 2.00 |
| The sports club discusses its regulations with the executive committee, coaches and parents at regular intervals. | 10. | 19. | 6. | 2.12 |
| The sports club's health promotion activities and/or state of well-being are evaluated in the annual report. | 11. | 6. | 27. | 1.84 |
| The sports club's regulations have a written section on substance abuse. | 12. | 12. | 9. | 2.48 |
| The sports club supervises the implementation and functionality of its regulations. | 13. | 10. | 13. | 1.84 |
| Possible conflicts (e.g., bullying) are dealt with, solved and monitored. | 14. | 15. | 10. | 1.80 |
| The sports club assures that its sub-groups have agreed regulations and practices. | 15. | 14. | 14. | 2.12 |

## 8.2 Health promotion profiles of the clubs (Article III)

The main indicator in Article III was the health promoting sports club index (HPSC Index). The HPSC Index describes the health promotion profiles of all the participating clubs on a general level. A HPSC Index can also be calculated club-specifically.

The HPSC Index indicates that Finnish youth sports clubs fulfil an average of twelve standards out of twenty two for the health promoting sports club ($\bar{x}$ 12.25 ± 4.04; range 0-22.00) (Table 6). None of the clubs reached the maximum value of 22.00. The variation between clubs was wide. As an example, the lowest scoring club fulfilled three (2.75), whilst the highest scored nineteen (18.75) standards. Every fourth club was categorised as higher health promoting (≥15) and every third as lower health promoting (<11.00) (Table 7).

Under the Sub-indices, youth sports clubs had recognised ideologies (fair play and everyone plays) best. The average Ideology index value was 1.61 ± 0.54; range 0-2.00. Almost three quarters of the clubs reached the higher health promoting level (Table 7). Also the environmental dimension was generally fairly well recognized by the clubs ($\bar{x}$ 3.19 ± 0.89; range 0-5.00). Still, the majority of the clubs ended up on a moderate health promoting level. Health promotion policies ($\bar{x}$ 4.49 ± 1.46; range 0-8.00) and practices ($\bar{x}$ 2.96 ± 1.82; range 0-7.00) were rather seldom recognized. Every fifth club reached the higher health promoting status on policies and every third on practices. Even so, the majority recognized these less, especially practices.

The sports club officials evaluated their clubs two times more likely as being higher-level on health promotion under the HPSC Index than the coaches (OR=2.04, p=.041). Every third club was evaluated as higher health promoting by the officials, and every fifth by the coaches.

The only background variable associated with the HPSC Index was the certification by the Young Finland Association. Certified clubs were almost two and a half times more likely to score on a higher level of the HPSC Index than non-certified clubs (OR=2.36, p=.016). More than every third of the certified clubs reached the higher health promoting level, whereas every fifth of the non-certified clubs did the same.

TABLE 6 Factor distribution and mean values (all clubs) of Health Promoting Sports Club Index (HPSC Index) and Sub-indices and standard-specific scores of sports club officials' (n=273) and coaches' (n=240) (Kokko et al. 2009a)

| TOTAL, SECTOR- AND STANDARD-SPECIFIC | | | | | Index mean value of all the clubs | | | p-value |
|---|---|---|---|---|---|---|---|---|
| | | | | | Total | Officials | Coaches | |
| **Health Promoting Sports Club Index (HPSC Index) (range 0-22.00)** | | | | | **12.25** | **12.80** | **11.69** | **.033** |
| | **Factor*** | | | | | | | |
| **Policy Index (range 0-8.00)** | **1** | **2** | **3** | **4** | **4.49** | **4.57** | **4.40** | **.311** |
| The sports club assures that its sub-groups have agreed regulations and practices. | .313 | | | | .71 | .72 | .71 | .788 |
| Health promotion is part of the coaching practice. | .326 | | | .278 | .71 | .70 | .72 | .232 |
| The sports club's regulations include a written section on well-being and/or health promotion and/or health education and/or healthy lifestyle. | .876 | | | | .68 | .71 | .65 | .162 |
| Health and well-being viewpoints are observed in the sports club's decision-making process. | .672 | | | | .66 | .68 | .63 | .268 |
| The sports club's regulations include a written section on substance abuse. | .625 | | | | .63 | .63 | .63 | .934 |
| The sports club supervises the implementation and functionality of its regulations. | .371 | | | .275 | .54 | .55 | .53 | .636 |
| The sports club collaborates with other sports clubs and/or health professionals on health issues. | .349 | | -.280 | | .32 | .30 | .33 | .498 |
| The sports club's health promotion activities and/or state of well-being are evaluated in the annual report. | .422 | | | | .24 | .28 | .20 | .040 |
| **Ideology Index (range 0-2.00)** | | | | | **1.61** | **1.68** | **1.55** | **.067** |
| The sports club promotes the "fair play" ideology. | | -.867 | | | .84 | .87 | .82 | .882 |
| The sports club promotes the "everyone plays" ideology. | | -.880 | | | .77 | .81 | .73 | .044 |

continues

| | | | | | | |
|---|---|---|---|---|---|---|
| **Practice Index (range 0-7.00)** | | | **2.96** | **3.21** | **2.69** | **.024** |
| The sports club promotes individual growth and development. | -.311 | | .62 | .66 | .57 | .070 |
| The sports club discusses its regulations with the Executive Committee, coaches and parents at regular intervals. | -.268 | | .49 | .56 | .42 | .007 |
| The sports club reviews and communicates treatment policies in case of a sports injury. | -.522 | | .46 | .47 | .46 | .505 |
| Sports injuries are comprehensively prevented and dealt with (including, e.g., the psychological effect of an injury on an adolescent). | -.503 | | .40 | .42 | .37 | .048 |
| The sports club pays particular attention to coaches'/instructors' interaction skills. | -.522 | | .34 | .38 | .29 | .025 |
| The sports club provides education on health issues or makes provisions for its members to receive such education. | -.894 | | .33 | .38 | .28 | .595 |
| The sports club assures that health education is carried out. | -.745 | | .32 | .34 | .30 | .895 |
| **Environment Index (range 0-5.00)** | | | **3.19** | **3.34** | **3.05** | **.279** |
| Coaches and other officials give a good example through their own behaviour. | | .582 | .81 | .86 | .77 | .156 |
| The sports club provides a sports environment that is free of intoxicants during junior activities. | | .655 | .73 | .76 | .70 | .060 |
| Possible conflicts (e.g., bullying) are monitored, solved and dealt with. | -.261 | .321 | .69 | .74 | .63 | .320 |
| In coaching, there is a health promoting element also beyond sports performance (within the sports club's activities). | -.271 | .314 | .58 | .59 | .58 | .858 |
| The sports club assumes its share of responsibility for a safe sports environment, e.g., reviews the sports environment yearly (in co-operation with the proprietor). | | .581 | .38 | .39 | .37 | .058 |

* A limiting value of .250 was used in SPSS for factor loadings.

TABLE 7 Distribution of youth sports clubs (n=97) as lower, moderately or higher health promoting, categorized by HPSC Index and Sub-indices (%) (Kokko et al. 2009a).

| | Lower health promoting | Moderately health promoting | Higher health promoting |
|---|---|---|---|
| Sport club's health promotion orientation **(HPSC Index)** | 33 (<11.00) | 44 (11.00– 14.99) | 23 (≥15.00) |
| Sports club's health promotion policies **(Policy Index)** | 39 (<4.00) | 43 (4.00–5.49) | 18 (≥5.50) |
| Ideologies within the sports club's activities **(Ideology Index)** | 8 (<1.00) | 20 (1.00–1.49) | 72 (≥1.50) |
| Sports club's health promotion practices **(Practice Index)** | 46 (<3.50) | 22 (3.50–4.49) | 32 (≥4.50) |
| Sports club as a healthy environment **(Environment Index)** | 43 (<2.50) | 45 (2.50–3.49) | 12 (≥3.50) |

## 8.3 Health promotion guidance activity of the clubs (Article IV)

In Article IV, the health promotion guidance activity of the clubs was examined under three domains of activity; during training or competition i.e. sports performance time, non-performance time and health topics. The clubs were fairly active on guiding their coaches during training or competition time ($\bar{x}$ 7.50 ± 2.34; range 0-12.00). The clubs categorised as active on training or competition reached a very high-level ($\bar{x}$ 9.98 ± .82) on guidance activity, with two clubs attaining the maximum score. The clubs had guided their coaches actively on respecting other competitors, referees and regulations, on fun and sensible training, and on equal treatment of the youths.

On the other hand, the clubs were fairly passive on non-performance time ($\bar{x}$ 4.33 ± 2.28; range 0-14.00). Even the clubs categorised as active ended up on quite a low level of activity ($\bar{x}$ 6.87 ± 1.25). However, there was clear variation on different matters. Most clubs had actively guided on nutrition issues during sports excursions, on coaches' own behaviour, and to intervene possible snuff use. At the opposite end, health education-related activities were almost completely ignored.

Guidance on different health topics was provided by the clubs both actively and passively, but varyingly ($\bar{x}$ 4.80 ± 3.13; range 0-13.00). The lowest third had been very passive (<2.00), whereas the most active end had been rather active ($\bar{x}$ 8.45 ± 1.57). The topics recognised best were the risks of being physically active when ill, injury prevention and sleep/rest. On the other hand, topics like nutrition, various substances (including doping), hygiene and violence were guided rarely. Guidance was given on sex-related issues to some extent but only by few of the clubs.

The associations between club-based background variables and the different domains of guidance activity were only shown by the Chi-square test, not by logistic regression. Concerning the training or competition time, the clubs

specialising in one discipline were more active in their health promotion guidance than general clubs (p=.033), and concerning the health topics, certified clubs were more active than non-certified (p=.009). Larger clubs were more active on every domain of guidance than smaller clubs (p=.006, p=.014 and p=.009) (Table 8).

TABLE 8 Percent distribution of the clubs categorized as active within the three guidance domains in association to club-based background variables (Kokko et al. 2009b).

| | Active clubs on guidance % | | |
|---|---|---|---|
| | **Training/ competition** | **Non-performance time** | **Health topics** |
| **Scope of disciplines pursued** | **ns** | * | **ns** |
| Clubs specialising in one sport | 32 | 36 | 40 |
| General clubs (several sports) | 34 | 31 | 28 |
| **Size of the clubs** | * | * | * |
| Small | 17 | 26 | 28 |
| Average | 41 | 37 | 37 |
| Large | 40 | 38 | 36 |
| **Team versus individual sports** | **ns** | **ns** | **ns** |
| Team sports clubs | 27 | 31 | 39 |
| Individual sport clubs | 37 | 36 | 28 |
| **Young Finland's Certification** | **ns** | **ns** | ** |
| Certified | 39 | 37 | 41 |
| Non-certified | 29 | 31 | 28 |

ns=non-significant; * p<.05; ** p<.01; Training/competition= Club's health promotion guidance activity on training/competition; Non-performance time = Club's health promotion guidance activity concerning the time outside training/competition; Health topics= Club's guidance activity on health topics in question.

## 8.4 Associations between profiles and guidance activities

Under the guidance activity during sports performance i.e. training or competition, slightly more than half of the clubs categorised as higher health promoting by the HPSC Index were also placed on the highest category of guidance activity during sports performance; they were both higher health promoting and active on guidance during sports performance (Table 9). The clubs categorised as higher health promoting by the HPSC Index were almost three and a half (OR=3.34, p=.010) times more likely to also guide their coaches on active ways of health promotion during sports performance than lower categorized clubs.

Similarly, concerning health promotion during non-performance time, over half; and under health topics, nearly two-thirds of the clubs categorised as higher health promoting by the HPSC Index reached the highest category of guidance. Therefore, the sports clubs categorised as higher health promoting by the HPSC Index were six and a half (OR=6.60, p<.001) times more likely to guide their

coaches actively on both health promotion during non-performance time and on health topics than other clubs.

TABLE 9 Associations between the clubs' Health Promoting Sports Club Index (HPSC Index) and domains of guidance activity with newly established categories (%).

| **Health promotion during sports performance** | **Passive** | **Fairly active** | **Active** | **Total** |
|---|---|---|---|---|
| Lower or moderately health promoting by the HPSC Index | 43 | 31 | 26 | 100 |
| Higher health promoting by the HPSC Index | 16 | 32 | 52 | 100 |
| **Total** | 34 | 31 | 35 | 100 |
| | | | | **p=.014** |
| **Health promotion during non-performance time** | **Passive** | **Fairly active** | **Active** | **Total** |
| Lower or moderately health promoting by the HPSC Index | 43 | 34 | 23 | 100 |
| Higher health promoting by the HPSC Index | 6 | 39 | 55 | 100 |
| **Total** | 31 | 36 | 33 | 100 |
| | | | | **p<.001** |
| **Health topics** | **Passive or Fairly active** | | **Active** | **Total** |
| Lower or moderately health promoting by the HPSC Index | 79 | | 21 | 100 |
| Higher health promoting by the HPSC Index | 39 | | 61 | 100 |
| **Total** | 66 | | 34 | 100 |
| | | | | **p<.001** |

## 8.5 Coaches' health promotion activity and clubs' guidance

In this chapter, coaches' health promotion activity was dissected by coaches and young male athlete perceptions. Also, association between the guidance activity of the clubs and implementation of the coaches was examined. Claims from the same three question batteries as the ones concerning the clubs' guidance activity were selected to find out the coaches' health promotion activity. It should be reminded here that the orientation of the questions was different for each respondent group (see Appendix 1). The club officials considered the clubs guidance activity, while the coaches evaluated their own activity, and the athletes concentrated on the degree to which their coach had recognized the issues questioned. The differences between separate respondents were explored also through sum variables of each domain.

The first question battery was directed to activity concerning sports performance related issues. There were differences between the respondent groups under eight claims out of ten (Table 10). The coaches were clearly the

most positive on their activity, whereas the youths evaluated the coaches' activity generally as more passive. Most of the coaches evaluated themselves as being active in recognizing the youth equally (78%) and that sports regulations are respected (87%). Also most of the coaches stated that they were active on safety issues (73%) and that training is fun/sensible (80%) and other competitors and referees are respected (82%). The majority of the youth agreed with the coaches on safety issues (75%), but only about half of the athletes stated that their coach had been active concerning the other claims. On the basis of the coaches' evaluations on their activity concerning four of the claims, the clubs' guidance activity was on a fairly equal level.

The differences between the respondent groups appeared evident. Less than a third of the club officials stated that their club had actively guided coaches to recognize health promotion concerning sports performance (Table 13). At the same time, more than half of the coaches evaluated themselves as active, but only less than every tenth of the youths agreed. The difference between the clubs' guidance activity and the coaches' self-evaluation was clear (OR = 2.52, p = .003). In contrast to the youths' perceptions of the coaches activity, the club officials evaluated the club's guidance activity as being five times more likely on the active level than the youths in their evaluation of the coaches' activity (OR = 5.19, p = .001). The difference between the coaches' and the youths' perceptions was even more significant. The coaches evaluated their health promotion implementation thirteen times more likely as being on the active level than the youths did (OR = 13.07, p <.001).

TABLE 10 Difference between the clubs' guidance activity (club officials) and health promoting coaching (coaches and youths), in contrast to sports performance-related health promotion (%).

| Statement | Clubs guidance activity | | | Coaches implementation | | | Youth perceptions of coaching* | | | p-value |
|---|---|---|---|---|---|---|---|---|---|---|
| | No | Some | **A lot** | No | Some | **A lot** | No | Some | **A lot** | |
| In training and competition, sports regulations are respected | 1 | 12 | **87** | 0 | 8 | **92** | 4 | 40 | **56** | <.001 |
| In training and competition, other parties (competitors, referees) are respected | 1 | 17 | **82** | 0 | 15 | **85** | 2 | 46 | **52** | <.001 |
| Training is sensible/fun | 1 | 19 | **80** | 0 | 20 | **80** | 4 | 48 | **48** | <.001 |
| The youths are treated fairly in training situations e.g. equitable participation | 2 | 20 | **78** | 0 | 8 | **92** | 3 | 36 | **61** | <.001 |
| Safety issues are recognises during training | 2 | 25 | **73** | 0 | 16 | **84** | 1 | 24 | **75** | .024 |
| Differences in the bodily size and skill levels of the youths are recognized with relation to the sport in question when training | 2 | 41 | **57** | 1 | 31 | **68** | 23 | 66 | **11** | <.001 |
| Physical exertion is in balance with relation to the individual phase of development | 3 | 51 | **46** | 0 | 23 | **77** | 2 | 31 | **67** | <.001 |
| Interaction between the youths is possible during training/competition | 6 | 48 | **46** | 1 | 46 | **53** | 2 | 34 | **64** | <.001 |

* Instructions to the youths were slightly different from those to the coaches and club officials (see Appendix 1).

The second question battery was directed to the coaches' activity concerning non-performance related health promotion. There were differences under every one of the twelve questioned claims (Table 11). The coaches were again the most positive on their activity level, but there were explicit differences between several issues. In general, active guidance was provided and implemented by the coaches on possible substance use intervention, advice to the adolescents in daily situations like eating, and balance in weekly physical exertion (both coaches and youth perceptions). Other non-performance related health promotion was less actively recognised. Health education-related activities were very seldom both guided and implemented.

The clubs were quite passive on guidance on non-performance time in general (Table 13). The coaches' activity was on a higher level compared to the clubs guidance. Both coaches (44%) and the youths (37%) evaluated the coaches' activity on a higher level than the club's guidance had been (OR = 1.35, p = .340). The youths for example evaluated the coaches' non-performance related activity almost two and a half times more likely as active than the clubs had guided (OR = 2.43, p = .012). The difference between the club's guidance activity and the coaches' evaluations was quite similar. The coaches evaluated their activity almost three and a half times more likely on a higher level than the guidance activity level evaluated by the club officials (OR = 3.30, p <.001).

The third question battery was aimed towards various health topics. The coaches' own evaluations on implementation activity followed the clubs' guidance activity (Table 12). At a general level, the clubs' guidance activity (42%) and the coaches' evaluations (52%) on their implementation activity were at a fairly equal level (Table 13). Substantial differences were found when the coaches claimed that they had noticed nutrition and hygiene issues more often than the club had provided guidance on the issue. Also, use of various substances was more often noticed by the coaches than they would have based on the club's guidance only. The youths' perceptions differed clearly from the perceptions of the coaches. Only about fifteen per cent of the youths thought that a coach had been active on substance-related health promotion. The youths' perceptions were in line with the club's guidance activity, except for substances. To conclude, the club officials (OR = 8.96, p <.001) and coaches (OR = 13.37, p <.001) were notably more likely to state higher level of activity on health topics than the youths did (Table 13). There were no significant differences between the coaches' own estimations and the club's guidance activity (OR = 1.50, p = .183).

TABLE 11 Difference between the clubs' guidance activity (club officials) and health promoting coaching (coaches and the youths), in contrast to non-performance-related health promotion (%).

| Statement | Club guidance activity | | | Coaches implementation | | | Youth perceptions of coaching* | | | p-value |
|---|---|---|---|---|---|---|---|---|---|---|
| | No | Some | **A lot** | No | Some | **A lot** | No | Some | **A lot** | |
| Possible substance use, including the use of snuff, is intervened in | 7 | 36 | **57** | 9 | 14 | **77** | 4 | 19 | **77** | <.001 |
| Adolescent's choices are directed e.g. while eating | 5 | 46 | **49** | 2 | 35 | **63** | 7 | 49 | **44** | .001 |
| Weekly physical exertion is in balance | 2 | 52 | **46** | 1 | 28 | **71** | 2 | 31 | **67** | <.001 |
| Exertion caused by school work is in balance with relation to training i.e. individual's total weekly exertion is in balance | 5 | 59 | **36** | 2 | 50 | **48** | 7 | 61 | **32** | <.001 |
| Social interaction is motivated between the team/group members outside practice/ competition | 6 | 60 | **34** | 1 | 52 | **47** | 4 | 49 | **47** | <.001 |
| Matters outside sports are recognized with relation to coaching | 9 | 61 | **30** | 2 | 57 | **41** | 7 | 56 | **37** | .004 |
| Health issues are discussed with the young athletes in connection with training or during sports excursions | 9 | 62 | **29** | 2 | 58 | **40** | 6 | 61 | **33** | .004 |
| Education is provided on substances | 14 | 63 | **23** | 12 | 47 | **41** | 22 | 52 | **26** | <.001 |
| Health issues are discussed also with parents | 12 | 66 | **22** | 3 | 67 | **30** | 13 | 62 | **25** | .001 |
| Lectures and information are given on health issues | 16 | 68 | **16** | 16 | 68 | **16** | 21 | 50 | **29** | <.001 |
| Outside experts are used to tell about health issues | 23 | 62 | **15** | 31 | 57 | **12** | 29 | 48 | **23** | <.001 |
| Health-related information is distributed to young athletes | 35 | 57 | **8** | 30 | 61 | **9** | 39 | 47 | **14** | <.001 |

* Instructions to the youths were slightly different from those to the coaches and club officials (see Appendix 1).

TABLE 12 Differences between the clubs' guidance activity (club officials) and health promoting coaching (coaches and youths), in relation to health topics (%).

| Statement | Clubs' guidance activity | | | Coaches' implementation | | | Youths' perceptions of coaching* | | | p-value |
|---|---|---|---|---|---|---|---|---|---|---|
| | No | Some | **A lot** | No | Some | **A lot** | No | Some | **A lot** | |
| Risks of being physically active while ill | 4 | 41 | **55** | 1 | 25 | **74** | 7 | 40 | **53** | <.001 |
| Injury prevention | 5 | 45 | **50** | 1 | 35 | **64** | 6 | 37 | **57** | .002 |
| Sleep/rest | 5 | 45 | **50** | 1 | 25 | **74** | 5 | 36 | **59** | <.001 |
| Physical activity | 7 | 50 | **43** | 0 | 47 | **53** | 13 | 60 | **27** | <.001 |
| Doping | 15 | 47 | **38** | 19 | 47 | **34** | 48 | 36 | **16** | <.001 |
| Hygiene | 8 | 55 | **37** | 6 | 36 | **58** | 19 | 50 | **31** | <.001 |
| Nutrition | 7 | 57 | **36** | 1 | 47 | **52** | 11 | 53 | **36** | <.001 |
| Drugs | 15 | 49 | **36** | 22 | 39 | **39** | 51 | 35 | **14** | <.001 |
| Alcohol | 11 | 54 | **35** | 13 | 44 | **43** | 38 | 45 | **17** | <.001 |
| Tobacco | 12 | 54 | **34** | 11 | 44 | **45** | 37 | 47 | **16** | <.001 |
| Violence | 16 | 53 | **31** | 17 | 50 | **33** | 33 | 50 | **17** | <.001 |
| Snuff | 17 | 52 | **31** | 20 | 38 | **42** | 45 | 41 | **14** | <.001 |
| Sexual issues | 49 | 46 | **5** | 53 | 43 | **4** | 66 | 28 | **6** | <.001 |

* Instructions to the youths were slightly different from those to the coaches and club officials (see Appendix 1).

TABLE 13 Differences between various respondents on three domains of clubs guidance and coaches' implementation, active third.

| Domains of activity | Clubs' guidance activity | Coaches' implementation | Youths' perceptions of coaching* | p-value |
|---|---|---|---|---|
| Sports performance related matters | 29 | 51 | 7 | <.001 |
| Non-performance related matters | 20 | 44 | 37 | .001 |
| Health topics | 42 | 52 | 7 | <.001 |

* Instructions to the youths were slightly different from those to the coaches and club officials (see Appendix 1).

## 8.6 From clubs' orientations and guidance to coaches' activity

The results of this thesis consist of the standards for the health promoting sports club, the health promotion profiles of Finnish youth sports clubs, the clubs' guidance activity towards their coaches and the coaches' health promotion activity evaluated by the coaches themselves and by young male athletes. Several associations between preceding components were found. These associations have been described in earlier chapters in detail. Figure 2 sums up and illustrates the logic of found associations.

The most important associations between study components are, first, that the clubs' general health promotion orientation was associated positively with every domain of the clubs' guidance activity. That is, if a club's health promotion profile was at higher level, the club was more likely to also guide their coaches in health promotion actively. Second, different respondent group opinions about the coaches' health promotion activity varied widely. The coaches were the most positive on their activity level, especially when compared to youths' perception. The coaches' own evaluations regarding their health promotion activities were also more positive than those of the clubs'. Thus, the association between clubs' guidance activity and coaches' implementation is not clear, and further research is needed.

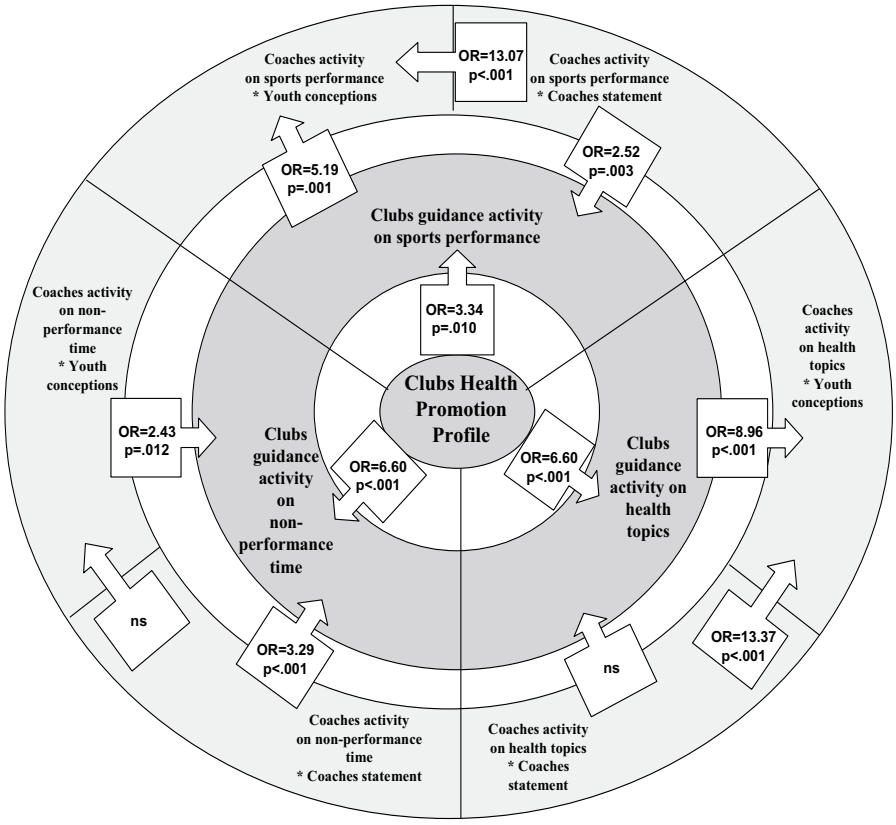


FIGURE 2 Associations between clubs' health promotion profiles, guidance activity and coaches' implementation (ns = non-significant).

# 9 DISCUSSION

## 9.1 Research findings

The purpose of this study was to first, create a frame of reference and determine the most important standards for the health promoting sports club concept. Secondly, the study aimed to describe the current health promotion activities and activity within youth sports clubs in Finland. This was done through dissecting clubs health promotion orientations and guidance activity towards coaches. Also, coaches' health promotion implementation activity was evaluated.

The settings-based health promotion approach was an important basis for this study. Settings approach has a relatively long history and is widely accepted in health promotion, in the school setting for example. So far, there has been little adaptation to leisure time settings. Sports clubs have many special characteristics that need to be recognised and pay attention to (see chapter 3.1). This is the first study, which has examined youth sports clubs as a setting for health promotion and therefore lay out basis for further development work.

Because of limited amount of scientific evidence in the field of this study and without a clear concept of the health promoting sports club, all the measurements needed to be created. Thus, they are preliminary by nature; further development and testing is needed. Next the results and methodological issues are considered and conclusions made. Some practical implications and recommendations for youth sports clubs, and also for sports federations are represented.

### 9.1.1 The most relevant standards

The aim of the Delphi Study was to establish the most relevant health promotion actions that are suited to youth sports club activities. As the amount of standard proposals (81) show, there are several activities on various levels that are important in health promotion. Therefore, twofold perspectives were considered on the baseline. First, from the health promotion point of view, it was important that forthcoming standards would cover all the strategic areas of the Ottawa

Charter. On the other hand, the capacity and capability of youth sports clubs to recognize and execute health promotion, which is not their core-business, was acknowledged. That is why experts from both sides were taken into the Delphi Panel, and the aim was to find the most relevant standards. Effects of two different expert groups are discussed on methodological evaluation section.

Through a three-step Delphi process, fifteen the most relevant standards for the health promoting sports club were revealed. There was a clear consensus by both the expert groups on eleven standards, whereas four standards were included in the most relevant list because of strong emphasis by one of the expert groups. Health promotion experts emphasized the importance of the following standards: "Health and well-being viewpoints are observed in the sports club's decision-making process" and "The sports club's health promotion activities and/or state of well-being are evaluated in the annual report". These two standards highlight the need for evaluation. The evaluation of the activities planned and/or executed is strongly pointed out in health promotion literature (Corcoran 2007; Glanz et al. 2002; McQueen & Jones 2007; Tones & Green 2004). Sports club experts stressed the importance of the standards: "The sports club pays particularly attention to coaches'/instructors' interaction skills" and "The sports club discusses its regulations with the executive committee, coaches and parents at regular intervals". These two standards relate to interaction between several parties participating in the sports club activity. Voluntary work is often dominated by practice (Casey et al. 2004). This divergence of evaluations among the expert groups, on the other hand, prove that the inclusion of the two expert groups was a correct decision and the above mentioned twofold perspectives were therefore successfully realized.

After the experts had given their evaluations, and fifteen most relevant standards were defined, the standards were dissected in the light of the strategic areas of the Ottawa Charter. Two of the key areas, creating supportive environments and reorienting health services, and some fundamental contents like health education were missing. Therefore, the researcher added seven more standards and categorized them. A preliminary typology of standards for the health promoting sports club consists of five main standards and 22 sub-standards (Kokko et al. 2006).

Under the first category, there are six standards that are related to the health promotion policies of a sports club. For example, the sports club's regulation should have references on well-being or health promotion and also on substance use prevention as principles of its activities. Policies have a guiding effect on practice (Dobbinson et al. 2006). Therefore, it is important that a sports club clearly states the principles and values of its activities on the policy level. In the most favourable case, this is done in writing, and the club makes sure that all the officials and, if possible, also the parents are aware of them.

The second category (two standards) concentrates on issues in the sporting environment in question. This refers to safety, alcohol and smoking policies and practices. The main function of the standards here is that the exposure of the sports club participating youths to any environmental risk factors, such as unclean or broken facilities or passive smoking, is minimized.

In the third category (four standards) the sports club is seen as a whole i.e. community, in which all the officials (coaches, managers etc.) pay attention to their own behaviours and different actors have a similar way to operate. It is

important, for example, to evoke a substance-free image in sports club activities, and at some age, the effect of a coach is even more powerful than that of teachers and parents (Dunn et al. 2001). Community actions have been recognized as one of the most effective ways to influence the health and health behaviours of its members (Kok et al. 2008). Here, the sports club specific characteristics needs once again take into account; for example, their internal operational system (Heinilä 1986).

The fourth category (eight standards) is mainly focused on coaching practice. Coaches should take health issues into account throughout the time the youths are involved in sports club's activities. This relates to both coaching during the sports performance and to the non-performance time, e.g. travelling to events in other cities. At this time, the main emphasis in coaching is on winning a game or competition (Gilbert & Trudel 2004; Bengoechea et al. 2004), even though informal educational nature creates unique opportunities for health promotion (Graham 2000; Robertson 2001). The main emphasis in this category is on individual knowledge and skills i.e. health literacy of children and adolescents. It has been shown that prevention programs within team sports have positive effects on young male athletes' knowledge, attitudes and use of various substances (Goldberg et al. 2000).

The fifth category (two standards) pertains to healthcare and injury prevention in sports clubs. The main idea is that a club should have comprehensive policies and practices for the prevention and treatment of sports injuries. Timpka et al. (2008) have argued that at present, sports organizations including sports clubs have not paid enough attention to sports safety policies. It has been proposed that future injury prevention would need more comprehensive approach than traditional epidemiology and injury causation basis (Timpka et al. 2006).

In summary, it can be argued that the evaluations of both the expert groups were fairly congruent. It is likely, that the Delphi Study successfully identified the most relevant standards for the health promoting sports club. These standards could reliable be used as a foundation for the subsequent Sports Club Survey.

### 9.1.2 Moderate health promotion orientations

In the Sports Club Survey, the health promotion orientations of studied youth clubs were successfully portrayed. Even though the experts on the Delphi Study thought that the standards for the health promoting sports club would be fairly difficult to implement, the results of the sports club survey proved otherwise. The clubs were fairly health promoting in general by fulfilling twelve standards out of twenty-two. On the other hand, there was a clear polarisation between clubs.

The average health promotion situation of all the clubs can be considered in two ways. When looking from the health promotion point of view, it can be said that the clubs display a moderate level of health promotion. The concept of the health promoting sports club is comprehensive and covers ideally all the perspectives of health promotion. Therefore, only less than a fourth of the clubs, reached the extensive level. For most of the clubs there are many areas to be improved, if the clubs wish to realize the health promoting sports club status. On the other hand, it should be reminded here that this study was a baseline mapping. It describes the health promotion orientation in a situation in which no

systematic interventions or programs have been executed. After these research results have revealed the strengths and weaknesses in current activities, it is possible to start the systematic development work.

Another perspective to interpret the result of an average situation of health promotion is through existing research on the health effects of youth sports participation. Youth sports participation and its health effects are most often dissected in the light of physical activity (Biddle et al. 2004). Arranging physical activity is obviously the main function of sports clubs, but club activities consist of more than physical activity as stated in this thesis. People's health has at least three dimensions – physical, social and mental. If only the physical dimension is considered, much of health promotion potential is lost. The concept of health promoting sports club and the standards for it, covers many health promotion activities on many levels, but has also all the dimensions of health built into it. The dimensions of health were also recognised in the Sports Club Survey, for example, the question batteries to describe clubs guidance and coaches' implementation activity were conceptualized to cover physical, social and mental dimensions. Consequently, it can be argued that the clubs already make a wider impact on the health of children and adolescents than only through the physical dimension. This is an important and many times forgotten positive contribution that club activities generate. The research results represented here prove that youth sports club activities are of good quality in general and already meet some demands set by society and public health authorities.

About every fourth club was categorized as higher health promoting and every third as lower. It can be said that the clubs that scored higher had realised health promotion with a comprehensive perspective. But at the opposite end, the club that scored lowest had only done some actions and fulfilled only three standards out of twenty-two. The variation between clubs was predictable. Murphy & Kanost (2002) have portrayed that sports clubs have paid attention to health promotion policies in various ways depending on the health topic, sports and club in question. Finnish sports clubs have similar variation than sports clubs and systems between countries (Heinemann 1999), and the clubs have diverged more and more (Heikkala 2000; Itkonen 1996; Pekkala & Heikkala 2007). The changes within a sports sector are continuous (Koski 2009).

Above heterogeneity between clubs emerged also when club-based background variables were dissected. The fact that there were no other associations between health promotion profiles and club-based background variables, except under certified and non-certified clubs, indicates that the health promotion orientation is not consistent by sports discipline, size of the club, operational form (team versus individual) or location. Thus, the development need is congruent within the whole field of youth sports. On the other hand, when there were also smaller clubs in the highest category of health promotion profile, it seems that the investment in health promotion is not limited by, for example, personnel capacity, but is a question of the will and choice of the club and its management.

The only association in the light of background variables was certification by the Young Finland Association. This supports the certification system and at the same time offers one possible explanation for the result. The certification system relies on nine criteria which the applying club needs to fulfil (Nuori Suomi 2006). These criteria consist of some educational standards. This is why it can be assumed that certified clubs already have considered issues close to

health promotion at the application stage more than non-certified clubs. Besides, the certification system provides possibilities for the certified clubs to develop further. It, for example, offers free education for a certain number of coaches from these clubs.

The clubs had recognized best the standards concerning the "fair play" and "everyone plays" ideologies. Also environmental issues were recognized to some degree. Health promotion policies and practices, on the contrary, were less recognized. The ideologies mentioned above are already part of sports systems in many sports and countries (Vamplew 2007). Environmental issues, such as the condition of the sports arenas and smoke-free ideology within it, are also already common today. Attitudes against smoking have also been affected through national resolutions in Finland. After the ban on smoking by law inside and nearby public buildings in 1995 (Finlex 2009), the attitudes of Finnish adult population towards risks of smoking, have developed in a positive way (Hakkarainen & Metso 2007). Sports arenas are often owned by municipalities, and therefore, smoke-free regulations pertain to them too. Moreover, attitude change also affects outdoor sports areas like track and field stadiums; it is less socially acceptable to smoke there.

Standards with relation to health promotion policies and practices consisted of many new and demanding issues and activities. For example, the lowest recognized standard under the policy index was "The sports club's health promotion activities and/or state of well-being are evaluated in an annual report". Evaluation is a fundamental part of health promotion programs and activities. Annual evaluation is probably quite rare in the clubs, even when considering sporting activities, not to mention health promotion activities. Policy and practice areas are also more demanding because there are more underlying standards. When the ideology index had two quite well known ideologies and the environment index five relatively well known and mainly existing items, the policy index had eight and the practice index seven less known activities. Furthermore, when examining standard-specific values, only a few single standards under the policy and practice indices were recognized on a good level. It can be stated that there is a pronounced need to develop health promotion policies and practices.

The variation between different sub-areas of health promotion profiles, might relate also to the voluntary nature of Finnish sports clubs. As Koski (2000b) note almost all of the coaches of children and adolescents operate on voluntary basis. Thus, it is understandable, that coaches are focusing on core-business (sports), but as more and more club officials, especially in club management, are paid workers (Koski 2009), more expectations can be set on policy and practice levels development in the light of health promotion too.

Overall, the findings concerning health promotion policies and practices were fairly parallel to what Dobbinson et al. (2006) found. Some health promotion policies had been realized by sports clubs in Australia but with similar kinds of variation within policies and between clubs. Previous research also indicates that health promotion policies have been conducted to some degree, but practices have received a lot less attention (Casey at al. 2004; Donaldson et al. 2004; Priest et al. 2008a).

The sub-indices created by factor analysis reconstitute the typology of standards for the HPSC. A four-factor model was found optimal. Consequently,

preliminary typology based on the Delphi Study, was reconstituted under four main categories. Finally, the proposed typology of the standards for the HPSC consists of four main categories named as: 1) health promotion policies, 2) ideologies, 3) health promotion practices, and 4) environmental health and safety areas. The standard distribution under these four main areas can be found in Table 14.

TABLE 14 Proposed typology of the standards for the health promoting sports club.

| |
|---|
| **(I) Health promotion policies** |
| The sports club's regulations include a written section on well-being and/or health promotion and/or health education and/or healthy lifestyle. |
| The sports club's regulations include a written section on substance abuse. |
| Health and well-being viewpoints are observed in the sports club's decision-making process. |
| The sports club supervises the implementation and functionality of its regulations. |
| The sports club's health promotion activities and/or state of well-being are evaluated in the annual report. |
| The sports club collaborates with other sports clubs and/or health professionals on health issues. |
| The sports club assures that its sub-groups have agreed regulations and practices. |
| Health promotion is part of the coaching practice. |
| **(II) Ideologies** |
| The sports club promotes the "everyone plays" ideology. |
| The sports club promotes the "fair play" ideology. |
| **(III) Health promotion practices** |
| The sports club discusses its regulations with the Executive Committee, coaches and parents at regular intervals. |
| The sports club pays particular attention to coaches'/instructors' interaction skills. |
| The sports club provides education on health issues or makes provisions for its members to receive such education. |
| The sports club assures that health education is carried out. |
| The sports club promotes individual growth and development. |
| Sports injuries are comprehensively prevented and dealt with (including, e.g., the psychological effect of an injury on an adolescent). |
| The sports club reviews and communicates treatment policies in case of a sports injury. |
| **(IV) Environmental health and safety** |
| The sports club assumes its share of responsibility for a safe sports environment, e.g., reviews the sports environment yearly (in co-operation with the proprietor). |
| The sports club provides a sports environment that is free of intoxicants during junior activities. |
| Coaches and other officials give a good example through their own behaviour. |
| Possible conflicts (e.g., bullying) are monitored, solved and dealt with. |
| In coaching, there is a health promoting element also beyond sports performance (within the sports club's activities). |

### 9.1.3 Sports performance-focused guidance by the clubs

Hemphill et al. (2002) pointed out the essential matter following the health-related policies "…it is important for clubs not only to develop an alcohol policy but also to implement the practices outlined in the policy". The first step from general health promotion orientation to practice in this thesis was examined under the clubs guidance activity towards coaches. The clubs were fairly passive in guidance in general. A similar result was arrived at Australian sports clubs, where a substantial number of respondents in alcohol-related policy survey were unsure whether their club had any alcohol prevention policies or had used any practices like training for officials (Hemphill et al. 2002).

Youth sports clubs had been notably more active concerning sports performance-related issues than non-performance-related. On the one hand, this is understandable, since sports, training and competitions form the core of the sports club activities. On the other hand, this raises the questions of when and where the health-related knowledge and skills are learned. Many times these issues arose in normal daily situations outside sports performance but during sports club activities. Koester (2000) argues that since youths who participate in sports spend hundreds of hours during a season to practice sports under the supervision of a coach, coaches should adopt a more active role in health education and injury prevention. Indeed, Bergeron (2007) argues that in youth sports there are many factors that influence possible health benefits of youths and many of these are due to coaches' actions, such as how they consider the quality of exercise, but also nutrition and rest related issues. These issues emerge mainly during non-performance time.

Health topics received rather superficial guidance. Topics like risks of being physically active when ill, injury prevention and sleep/rest received the most attention by the clubs. These again, especially the first two, are closest to the core of club activities, i.e. sports performance. On the other hand, many other topics that have a major effect on the functional capacity and general well-being of adolescents, and through these on the sports performance, like nutrition and several substances were missing. This is important to note when previous research results have addressed similar or even more negative substance-related behaviours among sports club participating youth (Calfee & Fadale 2006; Haukkala et al. 2006; Kannas et al. 2002; Melnick et al. 2001). This limited recognition of non-performance time and health topics may be a result from the discipline and competition orientation of existing coaching and club activities (Gilbert & Trudel 2004; Bengoechea et al 2004).

The variation between clubs and between domains of guidance was quite wide, which is understandable, as the clubs differ across many factors. The clubs examined within this study, for instance, were from four different sports disciplines, and also both large and small in size. Larger clubs have usually more personnel and resources to invest in activities which are not exactly within their core-business i.e. sports performance (Koski 2009). On the other hand, associations between clubs guidance activity and club-based background variables were not found with logistic regression. This indicates that associations were not consistent and favourable for any particular clubs, and the requirement for more investment in guidance pertain to the majority of the Finnish youth sports clubs.

To increase sustainability in health promotion, it is important to adopt health promotion into the existing systems of sports clubs (Casey et al. 2009). Guidance activity, i.e. internal organizational communication, is an existing system in sports clubs, but health-issues are rather new. Management and managerial communication form a crucial part of the health promotion capacity building of non-profit, non-governmental organisations (Robinson et al. 2006). Management-level communication has been acknowledged to be effective in committing the personnel to the desired goals (Postmes et al. 2001). In sports clubs, one danger is so-called information oligarchies (Thiel & Mayer 2009). This term refers to strong persons in sports clubs, who have access to information, but are not willing to share it to others. This situation should be avoided by flexible and explicit communication. In any case, the existing communication systems in sports club activities and between a club and its coaches are the way in which club policies can be extended to coaching practice. There is a clear need for improvement in guidance activity within Finnish youth sports clubs.

### 9.1.4 Health promotion orientation effects the guidance

The clubs were categorized, in this thesis, into three levels concerning both health promotion profiles and guidance activity. Thereafter, it was examined whether there were associations between these two. The results were clear: The clubs categorized as higher health promoting were significantly more likely to also be active on every domain of guidance. This result is congruent with the result of Balduck and Buelens (2005), who found that a higher level of decision making and more written procedures were positively associated with a higher degree of communication and information flow within Belgian soccer clubs. Furthermore, this association between the policy and practice level activities is parallel to what Dobbinson et al. (2006) discovered, i.e. higher level of policy recognition lead to activity in practice like supportive actions to smoking cessation and prevention.

The association between health promotion orientation (profile) and guidance activity can also be considered by discussing what these concepts consist of. In this thesis, youth sports clubs' general health promotion orientation was assembled of the standards for the health promoting sports club. Profiles to illustrate the orientations were created. These profiles can be seen to portray the level of awareness of health promotion within sports club activities. This awareness also determines to what extent a club has recognized health-related issues and activities examined in this thesis. Guidance activity is the first step from the policy level towards practice. It can be seen that guidance activity is very much the same operation as internal organizational communication and more specific sports clubs management-level communication with coaches (Mastrangelo et al. 2004, van Vuuren et al. 2007). It was not specified, how this guidance should have been executed. It could have been oral guidance during conversation with coaches, written in coaching contracts, or through education. This was, however, described in the instructions of the questionnaires for club officials. Either way, it was an activity of a club towards coaches.

In the light of the health promotion capacity building of communities, it can be argued that health promotion orientations and guidance activity represented two essential perspectives - agency interest in the issue and leadership and/or champions and their coordination and communication on health-related issues

(Robinson et al. 2006). It seems clear that both elements are needed in order to improve the health promotion capacity of an organization. At the same time, it seems that to activate club-level communication on health-issues, grounds for it need to be created by determining the club's general awareness on health promotion. Still, this is not enough. As Joffres et al. (2004) have argued, to actually improve the capacity of a community or organization, multi-level actions are needed. The standards for health promoting sports club consist of multi-level actions, thus they offer guidelines for club-level health promotion development. The question following this research finding is to what extent the activity level of a club transforms into the activity of the coaches.

### 9.1.5 Active or passive coaches?

The coaches' health promotion activity was evaluated by the coaches themselves, and also by sports club participating young male athletes. Also the link between the clubs' guidance activity and the coaches' health promotion activity was examined. The coaches were clearly the most positive regarding their own health promotion activity, and they also stated that they were active during non-performance time. Non-performance time was clearly a less recognised domain of guidance by the clubs. Here, the youths somewhat agreed with the coaches. When considering the coaches' evaluations, the same claims, as under clubs guidance activity, emerged. These claims are again closest to daily sports-related activities. This highlights the coaches' and clubs' discipline and competition orientation further, as stated earlier.

In general, the youths' perceptions differed from both the coaches' evaluations on their activity and from the club officials' statements of clubs guidance activity. There was a clear contradiction in the light of practice-level activity. This indicates, that even if, clubs' guidance and especially coaches' activity on daily coaching is frequent, youths do not perceive it similarly. Koski (2007) got parallel findings concerning coaches' messages on substance-free and healthy lifestyles evaluated by coaches and young sports club participants.

There are a few possibilities how this difference could be explained. First, if youths' perceptions illustrate the reality, coaches overestimate their activity, and actual activity is less frequent than stated. For example, concerning substance-related health promotion the youths' perceptions of the level of the coaches' activity were very low. But then, it is also possible that adolescents do not recall all the activities the coach has executed, when asked at the latter part of the season like in this thesis. If the coaches' evaluations of their implementation prevalence represent the reality, the situation could be considered good, but the contradiction with the youths' perceptions still impugn coaches' self-evaluation. It indicates that, even if the coaches were active, their messages did not reach the youths, and the coaches' health promotion means have been ineffective.

Another possible explanation is the contradiction between coaches' intention to comprehensive athlete development that often includes health-related skills and emphasis on winning as stated in the literature review. It has been found that winning a game is predominantly the ultimate factor that guides coaching behaviours (Gilbert & Trudel 2004). The other fact, that coaches are often unaware of this incongruity between their values and behaviours, may also explain such a positive estimation of one's own health promotion activity (Bengoechea et al.

2004). Also, socially desirable biases may have an effect here. Health has become an important factor with relation to physical activity and in this way a justification to the existence of sports club activities (Ministry of Education 2008).

One important detail that might have effected on low activity-level evaluations of the coaches here is that all the young athletes were male. Also coaches for the most part were boys' coaches. This stresses male perspective in this thesis. It has been found that there are differences between boys and girls sports. This is many times due to masculine and feminine characteristics that may also affect on adolescents health behaviours (Ricciardelli et al. 2006; Robertson 2003). In addition, Koski (2005) found that sports club participating girls had a higher level of health literacy than their male peers. Thus, girls might have more likely recognised coaches' health promotion activities than boys did in this study.

The clubs' guidance was on a lower level in every activity domain than the coaches' evaluation on their activity. This is interesting since club-level policies usually lead to more activity in practice. Now practice (coaches) was more active than the policy (clubs guidance). This is in favour of the coaches and indicates that the clubs' guidance is not as active as it should be. In any case, it can be concluded that there is a need for improvement in health promotion within a coaching practice, either in frequency or in the quality, and the clubs should lead the improvement process by more active guidance.

## 9.2 Methodological considerations

Even though the settings approach has been developed for over 20 years now, the approach has not been able to justify its potential by means of effectiveness or evidence based thinking. Settings have been realised as complex and dynamic systems with many specific characteristics. Consequently, evaluation in different settings is also complex. On the other hand, Green & Ottoson (2004) have argued that, when studying such community-wide real-world circumstances as youth sports clubs, the focus should be on external validity to strengthen the effectiveness of interventions, or as here the external validity of the research. The main question is the degree of generalization within similar settings. Many settings initiatives, like hospitals and schools, have created standards or guidelines to describe "the best practices". Likewise, the standards for the health promoting sports club were created and tested in this thesis.

Still, it was the first time, in this thesis, when the concept of health promoting sports club was determined and the indicators to measure health promotion orientation and activity tested. Therefore, all the measurement and statistics were done for the first time without the support of previous research. On the other hand, the study process constitutes an entity from theoretical frames, via standards to practical indicators. Previous stages guided the next ones. For example, a need, based on theory to determine the most relevant health promotion activities within youth sports clubs, lead to the Delphi Study. The methodologies of the Delphi Study and Sports Club Survey are discussed next.

### 9.2.1 Evaluating the Delphi

The first critical phase of the Delphi Study was the selection of the panellists. The emphasis of health promotion panellists was on their either scientific or practical expertise on health promotion. It was also hoped that they would have experience in youth sports. Most of the health promotion experts evaluated that they had much or very much experience in both health promotion and sports club activities. The sports club experts represented the whole field of sports from national sports management to local sports club levels. There were experts from national sports federations, regional organizations and sports clubs. An overriding factor for the sports club experts was that their current position was directed on youth sports club activities. As an additional value, most of the sports club experts evaluated that they had much or very much experience in health promotion.

It was interesting that experts from both groups stated to have also a lot of expertise on the field of other expert group, especially sports club experts on health promotion. This may represent a strong link between these two issues. On the other hand, one might question the reliability of this self-evaluation. In any case, this margin strengthens the need for two different expert groups and it can be argued that the participating experts constituted a solid combination.

The Delphi process consisted of three rounds during a six week period. It was important to make sure that all the experts could participate in all the rounds. All the experts were contacted personally and the timetable was settled, but still, some experts could not participate in every round. On the other hand, most of the experts participated, and there were enough respondents for all the rounds.

At the preliminary stage of the Delphi Study, sixty-four standard proposals were created on the basis of previous research and literature. This was done to orientate the panellists to the topic. It might have directed the participants' conceptions when compared to an open first round as used in some Delphi studies. On the other hand, in this way, the Delphi process was started efficiently. The experts also had a possibility to add their own standard proposals in the first round. New proposals were included in the second round.

The reliability and correctness of the Delphi process and procedure was ensured by following the three principal properties - anonymity, iteration and feedback. Anonymity, was secured all the way through the process, the panellists did not know the identity of each other. As mentioned earlier, the process lasted three rounds, during which, the use of the same kinds of questions and answer alternatives in the first two rounds increased the reliability. The third round was described as a challenging experience by some of the experts. This flatters the Delphi method as a group consensus method. Single expert opinion assimilates as group opinion (Linstone & Turoff 2002). Feedback from the previous round's results was given to the panellists at the same time with the new round of questions. Feedback was in intelligible form to all i.e. also to non-statistical experts. Minor debilitating factors were caused by the use of electronic software, the length of the process, and the overlaps of the standards, but it is unlikely that these would have affected the final results (Kokko et al. 2006).

Statistical analyses were used in the Delphi Study for the second round to eliminate less important standard proposals and for the third round to draw cut-off points. Criteria for the limits used were extrapolated from statistical estimates

but finally decided upon by the researcher. Thus, it was ultimately a subjective decision as to which standards were the last to be left out. However, statistical estimates were in a focal role.

### 9.2.2 Survey methodology

Articles III and IV and an additional two research questions were based on the Sports Club Survey. In Article III both the club officials' and the coaches' data were used. In Article IV only the club officials' answers were used. For the final two research questions, all three respondent group data were used. Next, methodological evaluations about sampling, data collection, measurement and statistical analyses are discussed, first at the general level and thereafter more specifically under each article or research question.

The sampling of the Sports Club Survey was done in two stages to ensure a heterogeneous sample of the clubs and respondents. A discretionary, not randomised sampling was used. This was perhaps the only way to obtain a heterogeneous sample, since there were many influential club-based background variables like sport disciplines, size of the clubs, geographical location etc. It was also important to get wide perspectives of a single club, and this is why several respondents were included. The effects of this matter are discussed later. Randomised sampling would have been more reliable, and although the club sampling was done together with the head of youth activities of national sports federations and respondent sampling with the contact person of each club, this limitation of the data should be kept in mind.

The measurement of the Sports Club Survey was based on the standards created in the Delphi Study. Twenty-two claims under the HPSC Index were in exactly the same form as the standards. The claims under the three question batteries on the clubs' guidance and the coaches' implementation activity were conceptualized on the basis of specific standards. The construction of the measurements was a continuous process on the basis of the Delphi Study. This, along with the fact that all the questionnaires were pre-tested, increases the validity of the survey data.

Proper contact information data of the respondents did not exist. Therefore, the data collection needed to be done through contact persons. This might have had certain effects on the data, when the contact persons were in a salient role. They were all contacted personally and asked whether they and the club in question would participate. Still, there were twenty-three clubs that did not return the questionnaires. Those who did not finish the survey were asked why not. The most common reason was the lack of time or frustration to urge respondents to fill in and return the questionnaires. This mainly reflects the reality within voluntary-based activities. The passivity of a contact person might have caused some deficits in the returned questionnaires. There were some signs of passivity, when a few of the contact persons had to be reminded about the deadlines several times, although this delay may have also been due to respondents. In any case, this affected mainly the timetable of the study, not the reliability of the data.

Another matter relating to data collection was that it was done in two stages: winter sports clubs (ice-hockey and cross-country skiing) in March-April 2007 and summer sports clubs (soccer and track and field) in August-October 2007. This was because the seasons of these different sports are not simultaneous. By

this procedure the situation during a season was similar for all the sports. At the same time, this procedure opened up the possibility to review the answers between winter and summer sports clubs. The answers did not vary owing to season variables. Thus, all the respondents could be included in the same data. The returned questionnaires were managed through mechanic optical perusal. This decreased the possibility for human errors.

One issue that may weaken the reliability of self-reported data is the possibility of socially desirable biases. This might have also happened in this study, and in this case, the reliability would be decreased. In Finland, a debate around health promotion and health-enhancing physical activity has been strong over the past few years (Ministry of Education 2008). Sports clubs, like the whole third sector have been drawn into this debate as sought-after settings to execute health promotion and especially health-enhancing physical activity. Thus, it would have been socially desirable that sports clubs and their coaches recognized health promotion broadly and actively. As the results show, this did not happen under the clubs. At the same time, the coaches' very positive evaluations may refer to social biases. An attempt was made to prevent the effect of social pressure also by data collection procedures. For example, the privacy of the respondents was secured all the time, and only researchers handled the fulfilled questionnaires.

Relating to the above; to increase reliability when studying community-wide real-world settings, it would be important to consider possible objective measurement. In this case, it would have been possible to, for example, review whether the clubs really had a written regulation about health promotion or alike, or considering substance abuse. However, it was decided to concentrate on subjective evaluations.

In Article III, the analyses considering the HPSC index were started by reviewing the respondents under their clubs. The intraclass Correlation Coefficient (ICC) values between many respondents from the same club were fairly low. Therefore, single respondent answers were diverted into a mean value of all the respondents from a single club, and club-specific values into a mean value of all the clubs. The internal consistency of the HPSC Index was dissected by Cronbach's alpha-coefficient and it was .89. Also the Cronbach alpha values for sub-indices were high. This strengthens the consistency of the HPSC index and sub-indices used. When the clubs were divided into three categories under the HPSC index, it was done by the researchers. This is because there was no existing model. Thus, the limiting values are suggestive. This limitation needs to be kept in mind when extrapolating these results.

The results according to which the evaluations concerning the HPSC index varied between the officials and coaches, but also the differences between the coaches' and adolescents' perceptions of the coaches' activity, raise the question about reliability. Why did different club actors perceive the club activities differently, or why did the youths perceive the coaches' activities much more passive? One possible explanation, and at the same time a limitation of this study, is due to the self-reported data as considered earlier. On the other hand, by including different actors and their perspectives in the club-level examination, the reliability was increased. The members of the executive committee do not usually have the same awareness of the club's daily activities as a coach, but also vice versa, the coaches are not usually as familiar with the club-level policies and operational principles as the club officials. Thus, the variation between the

respondents also validated the resolution to try to reach several informants from each club. The validity and reliability were improved compared with studies with one informant from a single club when more reliable information on the average situation of health promotion within these clubs was reached. This variation within the same club and even between e.g. different coaches may also express that health promotion is unclear for many sports club actors. This may decrease the validity of respondent answers. It should also be noted here that the concept of policy and the claims underneath might have been misunderstood by some of the respondents. The same thing happened to Hemphill et al. (2002), when most of their sports club respondents misunderstood the concept of alcohol policy.

Article IV concentrated on the health promotion guidance activity of the clubs towards coaches. The main concept was guidance activity within a sports club setting, which has not been determined before. It is seen in this thesis as similar to internal organizational communication. To avoid confusion among the respondents, it was described in the instructions of the questionnaires as "guidance can be either written or oral. The most important matter is that you (respondent) evaluate the activity level of your club considering the issue in question. Especially, regarding guidance, that has been done during the ongoing season". Nonetheless, some respondents could have misinterpreted this, and in this way the reliability of their answers decreased.

The answers of a single respondent were diverted into club-based values also under Article IV. Thus, the same limitations and strengths are valid. The distribution of the clubs under all the question batteries as active, fairly active or passive was done with 33% splitting. Here again, the limiting values are suggestive, and relative to the data in question.

The research questions considering the coaches' health promotion activity have a few methodological considerations. As mentioned in the statistical analysis, the emphases of the questions were different for each respondent group. The club officials evaluated club-level guidance activity, whereas the coaches and the youths evaluated the coaches' activity. This also means that the questions and claims underneath were in different form for each group. This had the strongest influence on the comparability of the coaches' and adolescents' third question battery, in which the question used, could be interpreted differently. The coaches' question had more emphasis on the general-level health promotion, whereas the adolescents' question may have guided them to evaluate more personal means. The other question batteries did not have this problem. Nonetheless, this margin should be kept in mind when interpreting these results. About two-thirds of the young male athletes represented team sports. This may have given more emphasis to the team sports. On the other hand, the statistical analyses were mainly executed by club-based mean values, which reduced this effect. All the young athletes were males, which have its effects as stated earlier.

The variation between the respondent group evaluations, especially between the coaches and the youths can also indicate distinctions in the reliability of different respondents. The only difficulty is to determine who are the most reliable? The coaches might overestimate and the youths might not remember. More research with different methods may be argued for.

# 10 CONCLUSIONS AND IMPLICATIONS

## 10.1 Conclusions

This study was the first, even internationally, to create the concept, standards and measurements of health promoting sports club for the youth and test these empirically. The most central conclusions from this study are:

- The Delphi study successfully identified the most relevant standards of the health promoting sports club. The standards were reliable and could be used in the subsequent stages of the study.
- The general health promotion orientation of the Finnish youth sports clubs was moderate, but variation between the clubs was wide.
- Ideologies and environmental health were quite well recognized dimensions of health promotion. Policy and practice levels need much more emphasis.
- The clubs health promotion guidance was passive in general. Clubs' guidance was fairly active concerning sports performance, but non-performance time and various health topics were less emphasized.
- The higher health promoting status by profile was strongly associated with activity on guiding the coaches. Thus, the development work should be started on club-level general health promotion orientation.
- The coaches' activity was fairly active with regard to coaches' own evaluations. Young male athletes perceived the coaches' implementation much less active. The clubs' guidance activity was also lower than the coaches' statements of their health promotion activity.

### 10.1.1 Practical implications and recommendations

Despite the fact that this study was conducted with an academic orientation and through scientific methods, it has several contributions to the practice of sports federations and youth sports clubs. First, the Delphi Study determined the most relevant standards for the health promoting sports club (HPSC). The standards represent such health promotion activities through which youth sports club activities are determined to be comprehensively health promoting. At the same time, the standards delimit the health promotion activities required of youth sports clubs. To improve or evaluate health promotion within youth sports clubs, these standards, or some of them are the ones to concentrate on. The issues, or some of those contained within the standards, could be useful additions to the contents of the coaching training at all levels.

Second, although, these standards can be used internationally, it should be pointed out that the standards are of a general nature and created under the Finnish sports system. We believe that the standards are adaptable globally, but one needs to take into account the unique attributes of the sports systems and clubs in question (Heinemann 1999; Thiel & Mayer 2009). Also to successfully implement these standards on the local sports club level, setting-specific characteristics, such as the organizational culture, the attitudes and beliefs of key stakeholders, the nature of the practice environment, the development history, the internal politics and broader social, economic and political context, need to be recognized (Poland et al. 2000).

Third, the Sports Club Survey described the current health promotion situation and activity level within Finnish youth sports clubs. Every fourth club was higher health promoting. This indicates that there is a need for development for the majority of the clubs. Thus, activities and development are needed in the whole field of youth sports.

Fourth, the HPSC Index described the current orientation of health promotion in youth sports clubs. The sub-indices more specifically pointed out the advanced and undeveloped areas. Ideologies were well recognized in general, but there is a need to invest more in environmental health and safety, and especially in health promotion policies and practices at the club-level.

Fifth, the result that Young Finland Association certified clubs were more likely to recognize health promotion on a higher level than other clubs supports the certification system. A similar system or integration with the Seal System could be one way to improve health promotion in the sports club activities.

Sixth, guidance activity of the clubs towards coaches was on a good level concerning sports performance. At the same time, the clubs were quite passive on guidance concerning non-performance time. It is important for the clubs to recognize non-performance time and its potential in the light of health promotion. The time within sports club activities other than sports performance is essential because many situations in which health-issues arise take place during these times. For example, when a junior team or group of athletes has a meal together, it is a natural situation for the coach to educate the youths on nutritional issues. The guidance activity of the clubs was fairly passive also on many health topics. The clubs need to give more emphasis on single health topics, especially on topics relating to nutrition and various substances, including doping. The clubs'

guidance was less active than the coaches' activity[5]. This highlights the clubs' internal organizational communication (guidance activity) more e.g. in applying health promotion policies to practice by every coach.

Seventh, a strong association between the health promotion profile and guidance activity strengthen the assumption of the policy guiding the practice. Indeed, it can be recommended that the health promotion development work starts at club-level policies i.e. general health promotion orientation following the standards for HPSC.

Eighth, there was a clear difference between the coaches' and the young athletes' evaluations concerning the coaches' health promotion activity. If the youths' perceptions illustrate the reality, the coaches' activity needs to be improved. If the coaches' evaluations are correct, the message does not reach the youths, and the coaches' health promotion means need to be analysed and improved. Either way, health promotion should be part of sports coaching education and coaches should be provided with tools for more effective health promotion.

Ninth, the instruments used to evaluate health promotion profiles and guidance activity proved valid and reliable. The instruments can therefore be recommended to, first, sports clubs to evaluate their own activities, second, financial parties to evaluate the quality of sports federations and youth sports club activities in terms of health promotion, and third, international actors. Standards, for example, could be inserted into the financial criteria of a) Ministry of Education Grants to Sports Federation and Associations, b) Sector Sports Federations Grants to Clubs, and c) Ministry of Education Direct Grants to Clubs; and HPSC index used as an evaluation tool.

### 10.1.2 Future research challenges

The standards and indicators to describe the youth health promoting sports club were tested in this study for the first time. It would be important to execute attendant studies that evaluate the repeatability of the measurements that were created and tested. Allied to this, even though the measurement used in this thesis proved valid and reliable, they were based on subjective evaluations. Also objective measurement would be important to consider and create. Consequently, it would be interesting to conduct a study in which objective measurements or a mixture of subjective and objective ones, are used.

There were several predefined decisions that needed to be made to limit disturbing factors in the sample. Thus, it would be interesting to study sports disciplines other than the ones studied here, or a wider portion of different sports, and consider athlete genders fairly. The latter one is especially important, because of the masculine and feminine characteristics considered in this thesis.

In this thesis the clubs' guidance activity was based on the evaluations of the club officials. To get more reliable picture of the clubs' activity, it could be also asked by the coaches, to what extent their club have realised this guidance, i.e. coaches' perceptions of clubs' guidance. Additionally, the guidance can be

5 See eighth implication – differences in coaches' and young male athletes' perceptions

examined more closely, for example who gave the guidance, how it was done and what did it consist of.

Since there was a clear difference between the coaches' and the youths' evaluations concerning the coaches' health promotion activity, it would be interesting to study coaches' health promotion means in daily coaching more closely. What is the real activity level? And why did the young athletes perceive the coaches' activity so differently? Here, also qualitative research methods like observation could be used.

The standards and measurements were created and tested in the Finnish context. Even though the sports systems in different countries differ from the Finnish system, the instruments (HPSC Index, sub-indices, clubs guidance and coaches' implementation activity tools) could be adapted worldwide. It would be interesting to compare health promotion orientation, clubs' guidance and coaches' implementation activity in youth sports clubs between countries.

This thesis described the current situation and strengths and weaknesses of health promotion within youth sports clubs. It would be interesting to execute health promotion intervention studies for the clubs; for example, to examine, through a longitudinal research frame, whether improvement in clubs guidance activity, leads to activity in coaches' implementation, and further to the individual level of adolescents on their behaviours, habits, and health status.

## 10.2 Guidelines for health promotion policy and practice development in Finnish youth sports clubs

The following guidelines are created on the basis of the results of this research, implications derived from those, other evidence in the field and general principles of health promotion planning. The guidelines aim to advise youth sports clubs to practically improve their health promotion activities. The role of the national bodies is also considered.

The basis of the guidelines is first of all to recognise that the development is a process, not a project, which will and should take time. Secondly, the guidelines emphasise that health promotion can and should be integrated into existing sports-related policies and practices. Many times it is "only" a question of a slight change of a point of view. Finally, it should be recognised that improved health promotion activity, not only benefits public health goals, but will most likely have positive effects on the health behaviours, health and overall well-being of sporting children and adolescents, and throughout these on sports performance itself. Added investment on health promotion could also be one response to health problems of contemporary society like obesity. Youth sports clubs are facing these same problems e.g. more and more children commencing activities are obese. This can not be ignored, but should be taken as a challenge to do something about.

The guidelines are divided under policy and practice levels. In this case policy-level refers to club-level activities and practice by both the club as a whole and individuals within it. Many times, club-level activities are in the form of policies, and therefore, these two concepts slightly overlap. Guidelines have a three-level structure. First, the actual guideline is presented; second,

the importance of a guideline is reasoned and justification for the guideline in question stated; and finally, a practical example is illustrated. Considerations are also made concerning key priorities and resources.

### 10.2.1 Policy development

Policy in sports clubs refers, as stated earlier, to publicly established determinants or guidelines of the objectives and philosophy and activities of the club. Policy is often seen to determine and guide practice. In youth sports club frame, policy refers also to activities a club can and should do before moving towards practical implementation. The question is what is needed before implementation? For example, it might seem self-evident, but to be successful here, all the key actors need to be engaged and motivated. This is why the first guideline pertains to the state of will to practice health promotion within various stakeholder groups, which needs to be clarified. The following guidelines can be given for policy development:

***Guideline 1: Determine the current state of will to practice health promotion in your club.***

*Reasoning:* If there is enough endorsement and positive attitude towards health promotion, it is more likely that people are ready for change and will engage to the related aims.

*Practical example*: A club could arrange a workshop in which participants from various stakeholder groups (club officials, coaches, athletes and parents) have an opportunity to express their opinions about fundamental aims of the club activities and/or of the importance of health promotion as one of the aims. A consensus statement is the goal. It should be reminded that a consensus should not need to be unanimous, but should be good enough for all i.e. compromise. Or if this seems to be too ambitious a way, a club can debate on health promotion position during an executive committee meeting.

***Guideline 2: Determine the health promotion aims, turn these into a written form, and convert the aims into the "language of sports"***

*Reasoning:* If the above mentioned consensus is reached and health promotion determined, as one of the fundamental aims, more detailed aims should be generated. These aims should thereafter be transformed into a written form. When the health promotion aims are in a written form, it is then transparent and publicly stated, and, written text remains even though people may change. It is also important that the aims are written in understandable form. Thus, it would be helpful to use sports-related terminology.

*Practical example:* Often, the prior aims of Finnish sports clubs are written into the association regulations. Sometimes the clubs also have written operational principles. Health promotion should be included to both of these. An example of sports-related terminology here is that instead of using a concept of healthy lifestyle, use a concept of sporty lifestyle. Even if there might be some difference between these two concepts, sporty lifestyle is somewhat closer for those participating club activities. It can thereafter also be determined more specifically

what is meant by sporty lifestyle, such as if it includes nutrition, substance-free habits etc.

***Guideline 3: Prioritise the most relevant health promotion aims.***

*Reasoning:* There are several health-topics in health promotion that can be targeted, such as, physical activity, nutrition, sleep, substance-use prevention and mental health. Also, policy and practice level activities differ from each other. Therefore, it is important to consider which health promotion aims are relevant, suitable and feasible for each club, relative to other sports-related aims and resources. Because of the importance, always include some substance-related aims for both young athletes and participating adults.

*Practical example:* One possible starting point could be to choose three or four health-topics that are the most important. A three or four year plan can then be formulated, during which one topic will be concentrated on each season. For example: in the first year, substance-use prevention; second year, nutrition; third year, sleep-issues; and so on. Thereafter, prior activities should be selected. This varies depending on the club in question. A club that has not done much yet needs first to create substance-related policies, for example, it should make a stand on alcohol use of involved adults; is it allowed or not, and if it is, where and how much? Similarly, for smoking; is it allowed or not? If it is, where could it be done? A club that has already made these definitions of policy may develop its policy further. It may, for example, consider how smoking by an athlete should be intervened in; does a coach in this kind of situation always need to inform the parents or not? If not, when not, such as after the first time? And how should a coach react to and broach this situation, e.g. advice the athlete on the disadvantages and health issues related to smoking?

***Guideline 4: Consider both financial and human resources that can be invested in the health promotion development work.***

*Reasoning:* It is important to realize that any development process needs resources, at least human and time resources. This development work might be started in the form of a project. In this case there might be financial possibilities available. Consider for example your clubs capabilities to apply money.

*Practical example:* Create a realistic timeline for the development. Five years can be considered as short-term in this subject matter. Consider who needs to do what; what is a reasonable input i.e. time resource that a head of coaching or coaches invest in this, annually and for the five year period? Examine possible and available finance sources, and the requirements for applications and projects. You can also try to discover if someone could be available to consult your club – possibly a parent of an athlete?

***Guideline 5: Designate a certain person to lead the development process.***

*Reasoning:* It has been found in previous research that there were notably more health promotion policies in a club in which the policy development was assigned to a certain person (Dobbinson et al. 2006).

*Practical example:* This designated person can be a member of executive committee or some other club official. The person can also be drawn from the parent body;

there might be someone among the parents who has a profession related to healthcare or a common interest to health promotion. Map out the situation. Development can also be directed to a working group, but it is important that it is official and has a leader.

***Guideline 6: Engage all the participating club officials.***

*Reasoning*: It is important to realise that there will also be resistance for change. Still, it is important to get all the club officials to act towards the same goals. Early adaptors may be used as facilitators in convincing the less enthusiastic individuals.

*Practical example:* Here, internal organisational communication is crucial. A club should inform all stakeholders of these health-related aims and policies. Existing channels of communication and forums such as parents' meetings may be used. It is important to continue this communication throughout the season, in which case, good practices like successful nutrition education by early adaptors should be used as examples and to boost the motivation of others.

***Guideline 7: Collaborate with other clubs.***

*Reasoning:* Sharing ideas on policies and best practice is a way to improve health promotion without always needing to create everything by yourself.

*Practical example*: Collaboration can be used also in many practical actions such as in organising coaching education. Collaboration can be done with other clubs from the same discipline, but also with clubs from other disciplines. Existing contacts are the way to start.

***Guideline 8: Evaluate the feasibility of health promotion aims regularly.***

*Reasoning:* It is important to realise that evaluation is usually a complex task. This kind of expertise often needs to be brought in from outside sports clubs. It is also important to notice that the planning of evaluation should be started right at the beginning of the development process. However, evaluation methods should be adequate and suitable for this kind of use. It should be remembered that the purpose of evaluation is first of all the development of activities, through finding out whether the existing activities are effective with relation to the policies. Proper evaluation plans, methods and indicators for both the short and long term should be created.

*Practical example:* The main point in evaluation is the same for sports and health related aims; are policies executed effectively in practice, and are the aims reached? It is a question of having a clear chain between aims, policies, activities and final outcomes. How can we prove that our tobacco policy leads to activities? And that activities lead to expected outcome? A policy-level example could be the situation in which a club has created a new policy on how the coaches should act in a case of snuff use by an athlete. It should be monitored whether these occasions have occurred and have the coaches followed the policy (practice evaluation). Thereafter, it can be evaluated whether the policy is feasible and relevant. This evaluation can be reported as part of the general annual report of the club activities.

### 10.2.2 Practice development

Practice in youth sports clubs applies to daily activities conducted by different practitioners, mainly coaches, when operating with young athletes. So here it is mainly a question of coaching practice and coaches activities within. Still, these guidelines are for clubs i.e. sports clubs role as an organisation to increase health promotion within coaching practice. The main question from the club's point of view is how to get coaches to execute health promotion actions that have been determined in the club's policies? The answer to this question relies on following key priorities that are: coaches should be guided and their motivation and commitment secured. Also, coaches' knowledge and skills need to be improved. This means for example, that a club should arrange education for coaches. The following guidelines can be given for practice development:

***Guideline 9: Create an action plan for implementing policy-determined aims.***

*Reasoning:* To ensure that those health promotion aims determined in the club policies are met, you need to carefully plan what is implemented, how and when, and by whom.

*Practical example:* Here again, prioritising is helpful. A club can for example, choose one health-topic per season to focus on, or alternatively a few activities. The Finnish Ice Hockey Association (FIHA) for example has implemented a three year time cycle for its health promotion program (Kokko 2007). In this program, the first year focussed on substance use prevention, especially snuff use, second year on nutrition and third year on sleep/rest and hygiene, under which several possible activities were established. FIHA officials responsible for the program implementation chose all the appropriate activities to focus on during each year of the program. There were also guidelines for other levels (club and team) in addition to what was determined the FIHA and its regional actors should do. This, at the same time, clarified what was expected by the club or coaches.

***Guideline 10: Invest in internal organisational communication i.e. guidance activity.***

*Reasoning:* To get club-level policies into practice, a club needs to invest heavily in communication. The main idea here can be simplified into a saying: even the best policy will not lead to good practice, if it has not been successfully communicated to practice-level actors. This refers mainly to the activity of club officials towards coaches, but also to other stakeholders, such as parents.

*Practical example:* This guidance can be in an oral, written or educational form. It is again important to recognise that the selection of proper means is dependent upon the existing ones. This means for example, that if a club has a tradition of having a conversation between club officials and each coach or a group of coaches at the beginning of season, then use this existing forum. On the other hand, health promotion emphasis can be integrated into a coach's contract, if there is a tendency to do one. Also, if a club has an internal education system for coaches and other officials, health promotion matters can be integrated into those.

***Guideline 11: Motivate the coaches regarding the importance of health promotion.***

*Reasoning:* A key to success in traditional settings-based initiatives has been a rising of the awareness of the link between the core-business of the setting and health promotion. This is also a key to motivating the coaches to become more interested in health-related matters. It is important to use the language of sports again and crucial to turn the focus of justification from health being important as recognised in youth sports because of societal importance, to health being important because of sports and sporting youth. From a coaches' point of view, the main questions are why should I take health promotion into account, and what are the benefits for me and my athletes? You have to be able to answer these questions. A simple phrase, youth who sleep enough, don't use substances, take care of their nutrition etc., also perform and develop better than those having less healthy habits, could serve as a starting point and awake interest in coaches at all levels.

*Practical example:* This motivation enhancement can only be done by getting the coaches to consider the issue, for example as part of a normal coaching education. Coaches must consider this issue themselves, and through their own coaching behaviour and athletes. What is the meaning of health in sports and to athletes? You might also use negative connotations in this; what happens if your athlete is ill? What if your athletes only eat unhealthy food, like fast food? If you have just done physically hard exercise and your athletes would smoke right after it, what would you think about it? And after these considerations, personalise the health issue by asking how much you have invested into issues such as the ones given above? If this is done in a correct way, and the coaches' state that not much activity has taken place, be positive and motivate them to invest more in the future.

***Guideline 12: Educate coaches and other club officials.***

*Reasoning:* According to research findings, sports coaches are willing to enhance the volume of health promotion and education within their coaching practice, but they often don't know what to do, they lack the relevant knowledge and skills. There is probably a similar situation among other club officials. For a club to expect coaches and other club officials to increase health promotion activities, education must be provided beforehand.

*Practical example:* There are basically two ways of provide the education; internally and/or externally. Internal education can also be done in two ways. Health promotion matters might be integrated into existing educational activities, like coaching education or health promotion specific training might be arranged. The latter might mean lecture(s) by a health professional for all the club official groups at same time. Here, the lecture might be targeted towards a specific health-topic, like nutrition. External education is provided by many parties, like national sports federation, regional sports organisation, or it might be a health organisation, like a course in first aid. Consider how you could encourage people to participate. Pay their participation fees and other costs if possible.

***Guideline 13: Monitor health promotion activities in daily practice.***

*Reasoning:* There are usually many different sub-groups within a sports club. It is important to assure that all of these are following the health promotion policy or operating principles of the club. This means that a club and its officials should regularly observe the daily activities to assess the prevalence of health promotion.

*Practical example:* This observation can be done in many ways, like visual observation, discussions with coaches, parents or athletes or through questionnaires. Active monitoring during the whole season will help the evaluation, as information is gathered throughout the season and not only at the end of it. Monitoring also provides knowledge during a season. If some policy or practice is not working properly it is recognised and it is possible to be rectified.

***Guideline 14: Evaluate practices with relation to policies.***

*Reasoning:* As it was important in the policy section to evaluate the feasibility of health-related policies, it is here important to evaluate whether the activities executed meet the aims of the policy. Over all the evaluation is important for two reasons. First, it is important because it helps to improve the development process. And second, it is possible to get the evidence to prove the benefits of the activities.

*Practical example:* The key point in evaluation is to recognise a link between the aim, activities and expected outcomes. For example, if it is aimed to increase knowledge of the coaches, it should be monitored what activities are done in order to improve this knowledge and thereafter it should somehow be able to measure whether coaches' knowledge has been improved. Another example relating to the policy section is a new policy for snuff use intervention, when practice monitoring should focus on how many occasions snuff use has been identified, and have the coaches followed the policy. Furthermore, it should somehow be evaluated, how did this intervention effect the youth in question? Reporting may be as follows: we had seven occasions on which snuff use and subsequent intervention by a coach was identified. And then following the club policy, were parents always informed about this? And was there anymore snuff use after the intervention? It should be highlighted here, that these examples were considered on the basis of an ideal situation. The evaluation methods used depend on the resources and knowhow available. The most important matter here is that evaluation is recognised and considered all the way and done in some form.

### 10.2.3 Key priorities

Since there is a wide variation of youth sports clubs in Finland, the key priorities should be determined club-specifically. Key priorities are also different for those clubs taking the first steps in health promotion than those advanced. Sports club's health promotion profile i.e. current situation could be clarified by HPSC Index. This way both current strengths and weaknesses would be discovered and key priorities could be determined.

On the basis of this study, ideologies were very well recognized by the clubs in general, and to some extent, environmental health and safety issues were also recognized. Health promotion policies and especially practices were much less recognized. Thus, there is a particular importance to invest in developing health promotion policies and practices. That is also why the above guidelines were aimed towards policies and practices. Since policies tend to guide practice, it can be recommended that policy-level development is concentrated on initially.

Within the above guidelines some hierarchy can be found. Under policy development it is obvious that to move forward a common interest in these issues needs to be evident. Also, there is a need for the ability to prioritize a broader list of aims. Even when different guidelines have not been numbered as step one and two and so on, one may consider the structure of those in this way.

### 10.2.4 Resource allocation

Resource allocation was already considered to some extent under the guidelines. The perspective to resources here can be seen as two-fold; the resources needed for development, and development as evidence for future resources.

When we consider the resources needed for the development work, the underlying aim is to get health promotion activities integrated into existing practices, and it can be said that when this aim has been reached no extra resources are needed. But at the initial stage, the development needs investment of both time and money. It might be a good idea to start this work in the form of a project. Financial support from the Ministry of Social Affairs and Health is available for health promotion-related projects, and funding can be applied for in the form of a health promotion annual grant. There is also financial aid from the Ministry of Education grants for sports clubs (see below) or from municipalities.

Another perspective to resources is that this development work in health promotion is one way to prove the wider positive impact of club activities on the health of participating children and adolescents, on top of the more recognized physical benefits. The evidence for this may be reached when the development work is well documented and evaluated. Here, HPSC Index is an appropriate tool. As it has been recommended already earlier in this thesis, HPSC Index might also serve as an evaluation tool for municipalities and the state when allocating the financial support for youth sports clubs.

### 10.2.5 Guidelines for other organisations

Physical activity and sports have been recognized as important elements of well-being and health of individuals. This link has been emphasized in many national physical activity-related documents (Ministry of Education 2008, 2009a and 2009b). Physical activity and sports have been seen as vehicles to achieve the task of well-being of the state. One important question concerning this thesis, is what the role of youth sports clubs could be here? According to theory overview and results of this thesis, the answer to this question is: the sports clubs can promote the health of children and adolescents comprehensively i.e. physically, mentally and socially. Thus, it can be stated, that the value of sports club activities is yet undervalued and under-resourced.

The role of national-level organizations in the context of health promoting sports clubs may be put in a form of a question; what should national

organizations initially do so that the sports clubs have the possibility to increase health promotion within their activities? The following four larger entities for this are concentrated on in the guidelines; supervision of the interests of sports community and especially clubs, enhancement of the issue towards the clubs and their actors, development of health-related education and financing.

Supervision of the interests is a fundamental task of national organization. In a field of sports and with relation to sports clubs, it is often a question to secure the grounds for voluntary civil activity. This has gained even more importance when the EU and European Commission have not recognized or have undervalued this construct, in a field of taxation for example. It is a high priority for these parties to continue this work and to secure the operational preconditions for local sports clubs.

The national organizations have a leading position within their sports or in their segment. It would be important for them to consider the position of health promotion in their field. And if they come to the conclusion that health promotion is an important issue, they should manifest it. This would most definitely encourage the clubs to start or continue investing to this area.

Similarly to club-level, health promotion issues are not yet at all, or only minimally, included into sports education by national federations like coaching education. The current work of the Finnish Sports Federation and its partners in the VOK process i.e. development of new guidelines for level one to three coaching and instructing education in sports in particular, has identified health promotion as one of the three key areas in coaching and instructing education (VOK 2007). There are clear guidelines for each level on what are the prior issues in health promotion in coaching education. It is at this time important that all sports federations follow the guidelines and include health-related issues in their education. It is thereafter possible for clubs to send their coaches and instructors to these education events which are external to clubs. It could also be recommended for the sports federations to start considering a similar development process to integrate or increase health promotion in other existing education such as sports management education.

To facilitate development in health promotion at the club-level, financing is crucial, especially at the initial stages. Governmental bodies, state and municipalities, should either increase or redirect their funding for clubs. Indeed, a new financial mechanism – direct financial support for clubs by the Ministry of Education – was introduced in 2009. For youth sports clubs this means an increase in financing, and for adult sports, a new opportunity to get support for the club. Youth sports the clubs can either apply for money for a new employee in the club, or for the general development in the club. Concerning the latter, the criteria for applications were at a fairly general and non-specific level. It was not specified, in spite of the recommendation of the working group for national physical activity and sports program, what kind of a development was aimed at. The working group recommended that in this area health- and education-related development aims should be emphasized (Ministry of Education 2008). It can therefore be recommended that health-related aims should be added on the funding criteria of both the state and municipalities. Also national sports federations may consider how they could support more local-level clubs. This may be done also through other forms of support, like providing free education. This development trend should be continued.

# 11 YHTEENVETO

Lasten ja nuorten urheilu- ja liikuntaseuratoiminnan tärkein tehtävä on liikunnan järjestäminen. Fyysisen aktiivisuuden osalta seuratoiminnassa liikkuvat nuoret ovatkin ei-seuratoimintaan osallistuvia nuoria aktiivisempia. Fyysisellä aktiivisuudella on merkittävä rooli liikunnan terveysvaikutusten kannalta. Fyysinen aktiivisuus vaikuttaa positiivisesta niin fyysiseen, psyykkiseen kuin sosiaaliseenkin terveyteen. Fyysinen aktiivisuus ei kuitenkaan ole seuratoiminnan ainoa lasten ja nuorten terveyteen vaikuttava tekijä. Kokonaisvaltaisen terveyden edistämisen näkökulmasta seuratoiminta on enemmän kuin paikka liikkumiselle. Seura muodostaa toimintaympäristön, jossa toiminta on yhteisöllistä ja vuorovaikutuksellista, ja jossa nuorten elämäntapojen muodostumiseen vaikuttavat niin muut nuoret kuin ympärillä olevat aikuiset. Myös seurassa vallalla olevilla toimintaperiaatteilla sekä valmentajan toiminnalla on vaikutusta. Seuratoiminnan vaikutukset voivat olla positiivisia, mutta myös negatiivisia. Esimerkiksi nuorten elämätapojen osalta positiivisia seikkoja ovat muita nuoria korkeampi fyysinen aktiivisuus ja vähäisempi tupakointi. Negatiivisia seikkoja ovat sen sijaan muita nuoria yleisempi humalajuominen, nuuskan, lisäravinteiden ja dopingaineiden käyttö.

Seuratoiminnalla on paljon tutkimatonta ja käyttämätöntä terveyden edistämisen potentiaalia. Siksi tämän väitöstutkimuksen tarkoituksena oli 1) luoda viitekehys terveyttä edistävälle urheilu/liikuntaseuralle (TES) 2) määritellä olennaisimmat terveyden edistämisen toimet, jotka soveltuvat lasten ja nuorten seuratoimintaan eli TES -kriteerit sekä 3) tutkia, missä määrin suomalaiset nuorten urheilu/liikuntaseurat sekä valmentajat huomioivat terveyden edistämisen nykyisessä toiminnassaan.

Tutkimuksen ensimmäisessä vaiheessa perehdyttiin aikaisempaan tutkimustietoon aiheesta. Lasten ja nuorten seuratoimintaa ei ole juuri tutkittu terveyden edistämisen näkökulmasta, myöskään kansainvälisesti. Siksi TES-käsitteen määrittelyssä ja tutkimuksen viitekehyksen luomisessa jouduttiin tukeutumaan aihetta lähellä oleviin teorioihin ja malleihin. Tutkimuksen taustalla ovat Ottawa Charter-asiakirja (WHO 1986), Whitelaw ym. (2001) määrittelemät toimintaympäristölähtöisen terveyden edistämisen mallit, Allardtin (1976)

hyvinvointimalli ja sen pohjalta Konun (2002) sovellus koulun hyvinvointimalliksi, Itkosen (2000) seuratypologia sekä Kannaksen (2000) alustavat TES-kriteerit.

Teoreettisen katsauksen ja viitekehyksen luomisen jälkeen tutkimuksen ensimmäisessä empiirisessä vaiheessa pyrittiin määrittelemään olennaisimmat toimet (kriteerit), joiden tulisi olla osa lasten ja nuorten seuratoimintaa terveyden edistämisen näkökulmasta. Kriteerien määritteleminen toteutettiin Delphi-tutkimuksella, jossa apuna oli sekä lasten ja nuorten seuratoiminnan (n = 16) että terveyden edistämisen (n = 11) asiantuntijoita. Delphi-menetelmällä pyritään saavuttamaan ryhmätasoinen konsensus arvioitavasta asiasta, tässä TES-kriteereistä. Delphi-tutkimus kesti kolme kierrosta, joiden aikana asiantuntijat arvioivat yhteensä 81 kriteeriehdotusta. Ensimmäiselle kierrokselle tutkija oli laatinut aikaisemman kirjallisuuden ja yllä mainittujen teorioiden ja mallien pohjalta 64 kriteeriehdotusta, joiden merkitystä asiantuntijat arvioivat. Toiselle kierrokselle mukaan otettiin asiantuntijoiden ensimmäisellä kierroksella ehdottamat 17 uutta kriteeriehdotusta. Näiden 81 ehdotuksen joukosta asiantuntijat nostivat kahdella ensimmäisellä kierroksella tärkeimmiksi 33 kriteeriä.

Tärkeimmiksi arvioidut kriteerit pitivät sisällä useita erilaisia terveyden edistämisen toimia. Eniten toimia oli päihteisiin (7) sekä psyykkisiin ja sosiaalisiin tekijöihin (7) liittyen. Päihdepainotteiset kriteerit esimerkiksi korostivat kirjattujen sääntöjen tärkeyttä. Myös valmennustoimintaa koskevia kriteerejä oli useita (6). Niissä painotettiin erityisesti terveyden edistämisen kuulumista osaksi valmennustoimintaa. Muut tärkeimmiksi arvioidut yksittäiset kriteerit koskivat seuran toimintatapoja, terveyspalveluja, vuorovaikutusta vanhempien kanssa, fyysistä ympäristöä, terveyden edistämistoimien arviointia sekä sponsorointia.

Viimeisellä Delphi-kierroksella asiantuntijoiden tehtävänä oli valita ensin kymmenen kaikkein tärkeintä kriteeriä aiemmin määriteltyjen 33 tärkeän joukosta. Sen jälkeen asiantuntijat laittoivat valitut kymmenen arvojärjestykseen tärkeimmästä vähemmän tärkeään (1–10). Kriteerit pisteytettiin asiantuntija-arvioiden pohjalta. Tällä tavalla esiin nousi viisitoista olennaisinta TES -kriteeriä. Laaja-alaisen terveyden edistämisnäkemyksen varmistamiseksi saatuja kriteerejä tarkasteltiin suhteessa Ottawa Charterissa määriteltyihin viiteen terveyden edistämisen olennaiseen osa-alueeseen. Joitakin olennaisia asiakokonaisuuksia ja muutama pienempi yksityiskohta oli jäänyt Delphi-tutkimuksessa vajaaksi. Täten tutkija muokkasi kriteerilistaa, lisäten seitsemän kriteeriä. Lopputuloksena alustava TES-kriteeritypologia sisälsi 22 kriteeriä.

Tutkimuksen toisessa vaiheessa toteutettiin seuratutkimus. Mukaan tavoiteltiin 120 nuorten seuraa neljästä lajista (jääkiekko, jalkapallo, hiihto ja yleisurheilu). Kustakin lajista otokseen valittiin 30 seuraa. Otanta toteutettiin kahdessa vaiheessa ensin seurat, sitten vastaajat. Aluksi seurat jaettiin kunkin lajin alla ryppäisiin (ryväsotanta) koon, sijainnin ja mahdollisen sinettiseura-statuksen mukaan. Sen jälkeen valittiin mukaan pyydettävät seurat harkinnanvaraisella otannalla. Seurakohtaiset vastaajat määriteltiin yhteistyössä kunkin seuran yhteyshenkilön kanssa. Jokaisesta seurasta tavoiteltiin vastaajia seuran toimihenkilöistä, valmentajista ja 14–16-vuotiaista pojista. Kaikki tavoitellut seurat halusivat osallistua tutkimukseen. Lopulta kuitenkin kyselylomakkeita saatiin takaisin 97 seurasta ja 273 seuran toimihenkilöltä, 240 valmentajalta sekä 646 seuratoimintaan osallistuneelta nuorelta. Seitsemänkymmentäneljä seuraa oli sellaisia, joista oli vastaajia kaikista vastaajaryhmistä.

Seuratutkimuksen mittarit perustuivat Delphi-tutkimuksen perusteella määriteltyihin TES-kriteereihin. Seuratutkimuksen tavoitteiksi muodostui tarkastella 1) seurojen yleistä terveyden edistämisen orientaatiota eli terveyden edistämisprofiilia, 2) seurojen aktiivisuutta ohjeistaa valmentajiaan sekä 3) valmentajien terveyden edistämisaktiivisuutta. Seurojen terveyden edistämisprofiilia kuvaamaan kehitettiin indeksi – seuran terveyden edistämisprofiilin indeksi (STEP-indeksi). Indeksi luotiin väittämäpatterin pohjalta, jossa väittämät (22) olivat samoja kuin TES-kriteerit. Yksittäisten vastaajien vastaukset laskettiin seurakohtaisiksi keskiarvoiksi, koska saman seuran yksittäisten vastaajien vastaukset erosivat melko paljon ICC-arvojen suhteen. Täten saatiin seurakohtainen seuran yleistilannetta paremmin kuvaava indeksi.

STEP-indeksin perusteella suomalaiset lasten ja nuorten urheilu/liikuntaseurat ovat yleistasolla melko terveyttä edistäviä ($\bar{x}$ 12.25 ± 4.04; vaihteluvälillä 0-22.00). Seurat täyttivät noin kaksitoista kriteeriä kahdestakymmenestäkahdesta. Seurakohtaiset erot olivat kuitenkin suuria. Noin joka neljäs seura oli laaja-alaisesti terveyttä edistävä (≥15 kriteeriä), kun taas kolmannes seuroista huomioi terveyden edistämisen melko suppeasti (<11.00 kriteeriä). Nuoren Suomen sinettiseurat olivat kaksi ja puoli kertaa todennäköisemmin laaja-alaisesti terveyttä edistäviä kuin ei-sinettiseurat (OR=2.36, p=.016). Seurantoimihenkilöt arvioivat seuransa laaja-alaisesti terveyttä edistäväksi kaksi kertaa todennäköisemmin kuin valmentajat (OR=2.04, p=.041).

STEP-indeksi jaettiin tarkempaa tarkastelua varten neljään osa-indeksiin. Osa-indekseistä seurat olivat parhaiten huomioineet ideologioihin (Ideology index) liittyvät kriteerit. Myös seura terveyttä ja turvallisuutta edistävänä ympäristönä (Environment index) osa-alueen kriteerejä seurat olivat huomioineet melko hyvin. Toisaalta terveyden edistämisen toimintaperiaatteisiin (Policy index) ja käytännön toimenpiteisiin (Practice index) liittyviä kriteerejä seurat olivat huomioineet melko vähän.

Seurojen aktiivisuutta ohjeistaa valmentajiaan mitattiin kolmella kysymyspatteristolla. Patteristot kohdentuivat ohjeistusaktiivisuuteen suhteessa urheilu/liikuntasuoritukseen, muuhun seuratoiminnan aikaan sekä useisiin terveysaiheisiin. Kustakin kysymyspatterista muodostettiin summamuuttuja faktorianalyysin perusteella. Yhden faktorin-malli oli paras kaikille pattereille. Yksittäisten vastaajien vastaukset käännettiin STEP-indeksin tapaan seurakohtaisiksi keskiarvoiksi.

Seurat olivat melko aktiivisia ohjeistamaan valmentajiaan koskien urheilu/liikuntasuoritusta ($\bar{x}$ 7.50 ± 2.34; vaihteluvälillä 0-12.00). Seurat olivat selvästi passiivisempia ohjeistamaan valmentajia huomioimaan terveysaiheita muun seuratoiminnan aikana ($\bar{x}$ 4.33 ± 2.28; vaihteluvälillä 0-14.00) tai yksittäisiä terveysaiheita yleensä ($\bar{x}$ 4.80 ± 3.13; vaihteluvälillä 0-12.00). Erot seurojen ja kysyttyjen ohjeistusaktiivisuus ulottuvuuksien välillä olivat suuria. Urheilu-/liikuntasuoritusta koskien aktiivisin kolmannes oli ollut erittäin aktiivinen ($\bar{x}$ 9.98/12.00 ± .82). Kaksi seuraa ylsi jopa täysiin pisteisiin. Toisaalta eri terveysaihealueita koskien passiivisin kolmannes oli ollut erittäin passiivinen (<2.00/12.00).

Tässä väitöskirjassa ennen julkaisemattomina tutkimustuloksina tarkasteltiin lisäksi seurojen STEP-indeksin ja ohjeistusaktiivisuuden yhteyttä

sekä valmentajien terveyden edistämisaktiivisuutta. STEP-indeksin ja seurojen ohjeistusaktiivisuuden välinen tarkastelu tehtiin kolmena erillisenä ohjeistusaktiivisuuden summamuuttujajaon perusteella. Tarkastelussa käytettiin seurojen kategorisoituja luokkia, joista STEP-indeksin kohdalla kaksi alimmaista luokkaa yhdistettiin. Täten seurat oli luokiteltu aikaisempien tutkimustulosten pohjalta joko laaja-alaisesti tai suppeammin terveyttä edistäviksi (STEP-indeksi) ja joko passiiviksi, kohtalaisen aktiivisiksi tai aktiivisiksi ohjeistusaktiivisuuden suhteen. STEP-indeksillä ja seurojen ohjeistusaktiivisuudella oli selvä yhteys. Ne seurat, jotka ylsivät STEP-indeksin mukaan laaja-alaisesti terveyttä edistävään luokkaan, myös ohjeistivat valmentajiaan aktiivisesti urheilu/liikuntasuorituksen suhteen lähes kolme ja puolikertaisella (OR=3.34, p=.010) todennäköisyydellä muihin seuroihin nähden. Samoin STEP-indeksin perusteella laaja-alaisesti terveyttä edistävät seurat, olivat muita seuroja kuusi ja puolikertaa (OR=6.60, p<.001) todennäköisemmin aktiivisia ohjeistamaan valmentajiaan niin muun seuratoiminnan kuin eri terveysaiheiden suhteen.

Valmentajien toteuttamaa terveyden edistämistä tarkasteltiin sekä valmentajien että seuratoimintaan osallistuvien nuorten arvioiden pohjalta. Lisäksi tarkasteltiin seurojen ohjeistusaktiivisuuden ja valmentajien aktiivisuuden välistä yhteyttä. Valmentajien aktiivisuuden selville saamiseksi käytettiin samoja kolmea kysymyspatteria, kuin seurojen ohjeistusaktiivisuuden kohdalla[6]. Yksittäisen vastaajan vastaukset yhdistettiin edellisten tapaan seurakohtaisiksi keskiarvoiksi. Valmentajat olivat itse positiivisimpia oman terveyden edistämistoimintansa suhteen. Nuoret kertoivat valmentajan aktiivisuuden olevan selvästi passiivisempaa. Valmentajien aktiivisuus oli heidän oman arvionsa mukaan aktiivisempaa kuin seurojen ohjeistusaktiivisuus kaikkien kysymyspatterien suhteen. Erityisesti muun seuratoiminnan aikana valmentajien aktiivisuus oli korkealla verrattuna seuran ohjeistusaktiivisuuteen.

Valmennustoiminnan terveyden edistämisaktiivisuudessa nousivat esille melko samat yksittäiset väittämät kuin seurojen ohjeistusaktiivisuutta koskien. Suuri osa näistä on urheilu/liikuntasuoritukseen melko suoraan vaikuttavia, kuten sairaana urheilun/liikkumisen riskit tai vammat. Suoritukseen välillisemmin vaikuttavat terveystekijät oli vähemmällä huomiolla. Terveyden aihealueista esille nousee päihteiden vähäinen huomioiminen. Valmentajista noin kolmasosa ja nuorista noin 15 prosenttia totesi valmentajien ottaneen päihdeasiat esille usein. Täten suurin osa ei ollut käynyt läpi juurikaan päihteisiin liittyviä kysymyksiä, vaikka aikaisempien tutkimustulosten valossa, tämä olisi tärkeää juuri seuratoimintaan osallistuvien nuorten kohdalla.

Yhteenvetona tämän väitöstutkimuksen keskeisimmät tulokset kertovat, että Delphi-tutkimuksessa saatiin onnistuneesti määriteltyä olennaisimmat TES-riteerit, joita voidaan käyttää pohjana, kun seurojen terveyden edistämistoimintaa kehitetään. Seuratutkimus kuvasi suomalaisten lasten ja nuorten urheilu/liikuntaseurojen tämän hetken terveyden edistämisen yleistä orientaatiota sekä ohjeistusaktiivisuutta. Lisäksi valmentajien terveyden edistämistoiminnasta saatiin alustavia viitteitä. Tulosten pohjalta voidaan todeta, että nykyinen seuratoiminta on tavoitetasoltaan kohtalaisesti terveyttä edistävää. Tosin seurojen väliset erot ovat suuria. Myös eri terveyden edistämisen osa-alueet oli

6 Eri vastaajaryhmien kysymys- ja väittämä-orientaatio oli hieman erilainen (katso liite 1).

erilailla huomioitu. Toimintaperiaatteiden ja käytännöntoiminnan tasoilla on eniten kehitettävää. Terveyden edistämisen näkökulmasta suurimmalla osalla seuroista on paljon kehitettävää.

Toisaalta tulokset kertovat, että jo nykyinen seuratoiminta on laaja-alaisemmin terveyttä huomioivaa kuin vain fyysisen aktiivisuuden ja sen pääasiassa fyysisten terveysvaikutusten kautta tarkasteltaessa. Seurojen yleisen terveyden edistämisorientaation ja ohjeistusaktiivisuuden vahva yhteys osoittaa, että seuratason toimintalinjauksilla on käytäntöä ohjaavaa vaikutusta. Nuorten ja valmentajien erilaiset arviot valmennustoiminnan terveyden edistämisaktiivisuudesta antavat viitteen siitä, että valmentajat joko yliarvioivat oman aktiivisuutensa tai nyt toteutettava toiminta ei ole tehokasta. Tämä yhdessä seurojen melko korkean terveyden edistämisprofiilin, mutta passiivisen ohjeistusaktiivisuuden kanssa vahvistaa ennakko-oletusta siitä, että terveyden edistäminen on osa sekä seurojen että valmentajien toimintaperiaatteita, mutta ei toistaiseksi ulotu käytännön toiminnan tasolle. Seuratoiminnan terveyden edistämisen kehittäminen on hyvä aloittaa toimintalinjausten tasolta TES -kriteereitä sekä tässä työssä esitettyjä ohjeita seuraten. Tutkimustulosten pohjalta voidaan myös todeta, että seurojen on syytä aktivoida valmentajien ohjeistamista ja valmentajien pohdittava joko terveyden edistämisen lisäämistä tai laadun parantamista.

Tutkimuksessa kehitettyjä terveyden edistämisen arviointimittareita voidaan hyödyntää 1) seuratasolla toiminnan kehittämisen apuna, 2) rahoittajien, kuten valtio tai kunta toimesta järjestö- ja seuratoiminnan laadun arvioimiseksi sekä 3) kansainvälisesti.

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APPENDIX 1 Question batteries, questions and claims used in the Sports Club Survey for each respondent group (club officials, coaches and the youth).

The original questionnaires were in Finnish, but the questions and claims used in this thesis are translated here to English.

**Background information of the respondents**

Question 1, club officials and coaches: Gender:
a) Male
b) Female

Question 2, club officials and coaches: Marital status:
a) Single
b) Married or Common-law married
c) Divorced or widow/widower

Question 3, club officials and coaches: Year of birth: 19_ _

Question 4, club officials and coaches: Do you have children?
a) Yes, how many _ _
b) No

Question 5, club officials and coaches: Do some of your children participate in some sports clubs activities?
a) Yes
b) No

Question 6, club officials and coaches: Education:
a) Elementary school
b) Comprehensive/Middle school
c) Vocational or other secondary-level school
d) Upper secondary
e) 2-year post secondary & Bachelor's level education
f) Master's level education

Question 7, club officials: Your position within sports club:
a) Executive manager
b) Head of coaching/-junior activities or alike
c) Chairman of the club or of the executive committee
d) Member of the executive committee
e) Other, What?_____

Question 8, coaches: Your position within your team:
a) Head coach
b) Assistant coach
c) Other, what?_____

Question 9, coaches: For how long you have coached your current group/team?
a) less than a year
b) 1-2 years
c) 3-4 years
d) 5-6 years
e) 7 years or longer

Question 10, coaches: For how long you have coached overall?
a) less than a year
b) 1-3 years
c) 4-6 years
d) 7-9 years
e) 10 years or longer

Question 11, young athletes: In what year were you born?
a) 1991
b) 1992
c) Other, year_____

Question 12, young athletes: At what age did you first participate in sports club activities concerning the sports in question?
_ _ of age

Question 13, young athletes: Usually, how many times per week, does your group/ team have events (trainings and competitions/games in total)?
a) 1-2
b) 3-4
c) 5-6
d) More than six times

Question 14, young athletes: At what level league or competition do you participate?
a) Finnish championship-level
b) First division or other national-level
c) Regional-level
d) Local-level
e) I/we do not participate in any league or competitions

Question 15, young athletes: How many coaches are in your group/team?
a) 1
b) 2
c) 3
d) 4 or more

**Background information of the sports clubs**

Question 16, sports clubs: Is your club:
a) General club (with several different disciplines)
b) Specified club (only one discipline)

Question 17, sports clubs: What is the discipline of your club (of your division in general clubs):
a) Cross-country skiing
b) Soccer
c) Ice-hockey
d) Track and field

Question 18, sports clubs: What is the volume of your club, the volume of active members: _____members

Question 19, sports clubs: Does your club hold certification from The Young Finland association?
a) Yes, what year did this take place?__
b) No

**Research questions**

Question 20, used in Article III and answered by club officials and coaches: To what extent, in your opinion, do the following alternatives describe your club's activities during the ongoing season?

| Items | Does not describe the club at all | Describes the club very little | Describes the club to some extent | Describes the club well | Describes the club very well |
|---|---|---|---|---|---|
| The sports club's regulations include a written section on well-being and/or health promotion and/or health education and/or healthy lifestyle. | | | | | |
| The sports club's regulations include a written section on substance abuse. | | | | | |
| Health and well-being viewpoints are observed in the sports club's decision-making process. | | | | | |
| The sports club supervises the implementation and functionality of its regulations. | | | | | |
| The sports club's health promotion activities and/or state of well-being are evaluated in the annual report. | | | | | |
| The sports club collaborates with other sports clubs and/or health professionals on health issues. | | | | | |
| The sports club assumes its share of responsibility for a safe sports environment, e.g., reviews the sports environment yearly (in co-operation with the proprietor). | | | | | |
| The sports club provides a sports environment that is free of intoxicants during junior activities. | | | | | |
| Coaches and other officials give a good example through their own behaviour. | | | | | |
| The sports club assures that its sub-groups have agreed regulations and practices. | | | | | |
| The sports club discusses its regulations with the Executive Committee, coaches and parents at regular intervals. | | | | | |
| Possible conflicts (e.g., bullying) are monitored, solved and dealt with. | | | | | |
| Health promotion is part of the coaching practice. | | | | | |

| Items | Does not describe the club at all | Describes the club very little | Describes the club to some extent | Describes the club well | Describes the club very well |
|---|---|---|---|---|---|
| In coaching, there is a health promoting element also beyond sports performance (within the sports club's activities). | | | | | |
| The sports club pays particular attention to coaches'/instructors' interaction skills. | | | | | |
| The sports club provides education on health issues or makes provisions for its members to receive such education. | | | | | |
| The sports club assures that health education is carried out. | | | | | |
| The sports club promotes individual growth and development. | | | | | |
| The sports club promotes the "everyone plays" ideology. | | | | | |
| The sports club promotes the "fair play" ideology. | | | | | |
| Sports injuries are comprehensively prevented and dealt with (including, e.g., the psychological effect of an injury on an adolescent). | | | | | |
| The sports club reviews and communicates treatment policies in case of a sports injury. | | | | | |

Question 21, used in Article IV and for additional research questions, and answered by club officials: To what extent has your club guided coaches to recognise the following matters during the sports performance, i.e. practice/competition and/or while planning it?

| **Claims** | Not at all | To some extent | Moderately | Much | Very much |
|---|---|---|---|---|---|
| Physical exertion is in balance with relation to individual phase of development | | | | | |
| Training is sensible/fun | | | | | |
| Interaction between young athletes is possible during training/competition | | | | | |
| Differences in the social skills of young athletes are recognized | | | | | |
| The time for training is as good as possible with relation to other daily activities | | | | | |
| Safety issues are recognized during training | | | | | |
| Differences in the bodily sizes and skill levels of the youth are recognized with relation to sport in question when training | | | | | |
| Young athletes are treated fairly in training situations e.g. equitable participation | | | | | |
| The other parties (competitors, referees) are respected during training and competition | | | | | |
| Sports regulations are respected during training and competition | | | | | |
| Failures in sports are dealt with in a positive way | | | | | |
| Differences in the mental development levels of the youth are recognized | | | | | |

Question 22, used in Article IV and for additional research questions, and answered by club officials: To what extent has your club guided coaches to recognise the following matters during non-performance time within club activities, i.e. other time than practice/competition, such as locker room or excursion activities?

| Claims | Not at all | To some extent | Moderately | Much | Very much |
|---|---|---|---|---|---|
| Weekly physical exertion is in balance | | | | | |
| Nutrition issues are recognized during e.g. sports excursions | | | | | |
| Social interaction is motivated between the team/group members outside practice/ competition | | | | | |
| Exertion caused by school work is in balance with relation to training i.e. individual's total weekly exertion is in balance | | | | | |
| Coaches understand how their own behaviour affects the health behaviour of the youth | | | | | |
| Possible substance use including the use of snuff is intervened in | | | | | |
| Adolescent's choices are directed e.g. while eating | | | | | |
| Health issues are discussed also with parents | | | | | |
| Matters outside sports are recognized with relation to coaching | | | | | |
| Health issues are discussed with the young athletes in connection with training or during sports excursions | | | | | |
| Lectures and information are given on health issues | | | | | |
| Health-related information is distributed to young athletes | | | | | |
| Outside experts are used to tell about health issues | | | | | |
| Education is provided on substances | | | | | |

Question 23, used in Article IV and for additional research questions, and answered by club officials: To what extent has your club guided coaches to recognise at least the fundamentals of the following health topics?

| Claims | Not at all | To some extent | Moderately | Much | Very much |
|---|---|---|---|---|---|
| General physical activity | | | | | |
| Nutrition | | | | | |
| Tobacco | | | | | |
| Snuff | | | | | |
| Alcohol | | | | | |
| Drugs | | | | | |
| Doping | | | | | |
| Sleep/rest | | | | | |
| Hygiene | | | | | |
| Injury prevention | | | | | |
| Risks of being physically active while ill | | | | | |
| Violence | | | | | |
| Sexual health | | | | | |

Question 24, used for additional research questions, and answered by coaches: To what extent you have recognised the following matters during the sports performance, i.e. practice/competition and/or while planning it?

| Claims | Not at all | To some extent | Moderately | Much | Very much |
|---|---|---|---|---|---|
| Physical exertion is in balance with relation to individual phase of development | | | | | |
| Training is sensible/fun | | | | | |
| Interaction between young athletes is possible during training/competition | | | | | |
| Differences in the social skills of young athletes are recognized | | | | | |
| The time for training is as good as possible with relation to other daily activities | | | | | |
| Safety issues are recognized during training | | | | | |
| Differences in the bodily sizes and skill levels of the youth are recognized with relation to sport in question when training | | | | | |
| Young athletes are treated fairly in training situations e.g. equitable participation | | | | | |
| The other parties (competitors, referees) are respected during training and competition | | | | | |
| Sports regulations are respected during training and competition | | | | | |
| Failures in sports are dealt with in a positive way | | | | | |
| Differences in the mental development levels of the youth are recognized | | | | | |

Question 25, used for additional research questions, and answered by coaches: To what extent you have recognised the following matters during non-performance time within club activities, i.e. other time than practice/competition, such as locker room or excursion activities?

| Claims | Not at all | To some extent | Moderately | Much | Very much |
|---|---|---|---|---|---|
| Weekly physical exertion is in balance | | | | | |
| Nutrition issues are recognized during e.g. sports excursions | | | | | |
| Social interaction is motivated between the team/group members outside practice/ competition | | | | | |
| Exertion caused by school work is in balance with relation to training i.e. individual's total weekly exertion is in balance | | | | | |
| Coaches understand how their own behaviour affects the health behaviour of the youth | | | | | |
| Possible substance use including the use of snuff is intervened in | | | | | |
| Adolescent's choices are directed e.g. while eating | | | | | |
| Health issues are discussed also with parents | | | | | |
| Matters outside sports are recognized with relation to coaching | | | | | |
| Health issues are discussed with the young athletes in connection with training or during sports excursions | | | | | |
| Lectures and information are given on health issues | | | | | |
| Health-related information is distributed to young athletes | | | | | |
| Outside experts are used to tell about health issues | | | | | |
| Education is provided on substances | | | | | |

Question 26, used for additional research questions, and answered by coaches: To what extent you have gone through at least the fundamentals of the following health topics?

| Claims | Not at all | To some extent | Moderately | Much | Very much |
|---|---|---|---|---|---|
| General physical activity | | | | | |
| Nutrition | | | | | |
| Tobacco | | | | | |
| Snuff | | | | | |
| Alcohol | | | | | |
| Drugs | | | | | |
| Doping | | | | | |
| Sleep/rest | | | | | |
| Hygiene | | | | | |
| Injury prevention | | | | | |
| Risks of being physically active while ill | | | | | |
| Violence | | | | | |
| Sexual health | | | | | |

Question 27, used for additional research questions, and answered by young male athletes: To what extent do the following claims describe your coaches' activities during the sports performance?

| Claims | Not at all | Not well | Somewhat | Well | Very well |
|---|---|---|---|---|---|
| Your coach carries out too hard training | | | | | |
| Your coach emphasizes, that training should be sensible/fun | | | | | |
| Your coach has forbidden interaction with your teammates/other athletes during training/competition | | | | | |
| Your training sessions are at a suitable and convenient time of day | | | | | |
| Your coach assures, that training is safe | | | | | |
| In your team/group everybody does the same training | | | | | |
| The best athletes receive more attention by your coach | | | | | |
| Your coach always gives negative feedback when you fail | | | | | |
| Your coach emphasizes, that other athletes should be respected | | | | | |
| Your coach always intervenes, if someone in your team/group cheats on the regulations of your sports | | | | | |

Question 28, used for additional research questions, and answered by young male athletes: To what extent do the following claims describe your coaches' activities during non-performance time within club activities, i.e. other time than practice/ competition, such as locker room or excursion activities?

| Claims | Not at all | Not well | Somewhat | Well | Very well |
|---|---|---|---|---|---|
| Training sessions/competitions and free days are in balance during a weekly period | | | | | |
| Your coach gives hints and advice on what to eat, while eating together | | | | | |
| Your coach emphasizes that you should be friends with your team-mates/other athletes also outside of practice/competition | | | | | |
| Exertion caused by school-work is recognised in relation to physical exertion | | | | | |
| Your coach discusses health issues also with your parents | | | | | |
| Your coach recognises matters, away from sports, that are important to you | | | | | |
| Your coach always intervenes in snuff use or smoking, if he/she witnesses any use | | | | | |
| Your coach discusses health issues with you e.g. during sports excursions | | | | | |
| Your coach has given a separate lecture to you on some health issues | | | | | |
| Your coach has distributed health related information leaflets to you | | | | | |
| An outside expert has talked to you about health issues | | | | | |
| Your coach has told you about substances and the risks of usage | | | | | |

Question 29, used for additional research questions, and answered by young male athletes: To what extent your coach has discussed the following health topics with you?

| Claims | Not at all | To some extent | Moderately | Much | Very much |
|---|---|---|---|---|---|
| General physical activity | | | | | |
| Nutrition | | | | | |
| Tobacco | | | | | |
| Snuff | | | | | |
| Alcohol | | | | | |
| Drugs | | | | | |
| Doping | | | | | |
| Sleep/rest | | | | | |
| Hygiene | | | | | |
| Injury prevention | | | | | |
| Risks of being physically active while ill | | | | | |
| Violence | | | | | |
| Sexual health | | | | | |

APPENDIX 2 Factor distribution, communality- and eigen values and total variance explained in the four-factor model for HPSC Index.

TABLE 15 Factor distribution and communality-values in four-factor model for HPSC Index.

| Claims | Factor* | | | | Communalities |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | |
| The sports club assures that its sub-groups have agreed regulations and practices. | .313 | | | | .412 |
| Health promotion is part of the coaching practice. | .326 | | | .278 | .563 |
| The sports club's regulations include a written section on well-being and/or health promotion and/or health education and/or healthy lifestyle. | .876 | | | | .445 |
| Health and well-being viewpoints are observed in the sports club's decision-making process. | .672 | | | | .534 |
| The sports club's regulations include a written section on substance abuse. | .625 | | | | .393 |
| The sports club supervises the implementation and functionality of its regulations. | .371 | | | .275 | .485 |
| The sports club collaborates with other sports clubs and/or health professionals on health issues. | .349 | | -.280 | | .369 |
| The sports club's health promotion activities and/or state of well-being are evaluated in the annual report. | .422 | | | | .571 |
| The sports club promotes the "fair play" ideology. | | -.867 | | | .675 |
| The sports club promotes the "everyone plays" ideology. | | -.880 | | | .645 |
| The sports club promotes individual growth and development. | | | -.311 | | .464 |
| The sports club discusses its regulations with the Executive Committee, coaches and parents at regular intervals. | | | -.268 | | .407 |
| The sports club reviews and communicates treatment policies in case of a sports injury. | | | -.522 | | .491 |
| Sports injuries are comprehensively prevented and dealt with (including, e.g., the psychological effect of an injury on an adolescent). | | | -.503 | | .524 |
| The sports club pays particular attention to coaches'/ instructors' interaction skills. | | | -.522 | | .535 |
| The sports club provides education on health issues or makes provisions for its members to receive such education. | | | -.894 | | .509 |
| The sports club assures that health education is carried out. | | | -.745 | | .626 |
| Coaches and other officials give a good example through their own behaviour. | | | | .582 | .401 |
| The sports club provides a sports environment that is free of intoxicants during junior activities. | | | | .655 | .371 |
| Possible conflicts (e.g., bullying) are monitored, solved and dealt with. | | | -.261 | .321 | .437 |
| In coaching, there is a health promoting element also beyond sports performance (within the sports club's activities). | | | -.271 | .314 | .555 |
| The sports club assumes its share of responsibility for a safe sports environment, e.g., reviews the sports environment yearly (in co-operation with the proprietor). | | | | .581 | .337 |

* A limiting value of .250 was used in SPSS for factor loadings.

TABLE 16 Eigen values and total variance explained under the four-factor model for HPSC Index.

| Factor | Initial Eigen values | | |
|---|---|---|---|
| | Total | % of variance | Cumulative % |
| 1 | 8.405 | 38.205 | 38.205 |
| 2 | 1.674 | 7.608 | 45.813 |
| 3 | 1.330 | 6.043 | 51.856 |
| 4 | 1.264 | 5.743 | 57.599 |
| 5 | .987 | 4.487 | 62.086 |