

Health promotion profile of youth sports clubs in Finland: club officials' and coaches' perceptions

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SUMMARY

The purpose of this article is to examine the current health promotion orientation of youth sports clubs in Finland in view of the standards created previously for the health promoting sports club (HPSC). Ninety-seven youth sports clubs participated, and 273 sports club officials and 240 coaches answered the questionnaires. To describe clubs health promotion orientations, an HPSC index was created. The HPSC index was formulated on sub-indices by factor analysis. The sub-indices were: policy, ideology, practice and environment indexes. The results indicate that youth sports clubs are fairly health promoting in general. On average, the clubs fulfilled 12 standards for HPSC out of 22. Every fourth club was categorized as higher health promoting (≥ 15 fulfilled standards), and every third as lower health promoting

(<11 fulfilled standards). The variation between clubs was wide. The clubs that had been recognized as exemplary and hence certified by the Young Finland Association were more likely to recognize health promotion than non-certified clubs (OR = 2.36, $p = 0.016$). The sports club officials were twice as likely to evaluate their clubs as higher health promoting than the coaches (OR = 2.04, $p = 0.041$). Under the sub-indices, ideologies were recognized best, others less. These findings indicate that minority of the youth sports clubs have realized health promotion comprehensively as a part of their activities. There is a lot of need for development, especially in the area of health promotion policies and practices. The instruments used proved valid and reliable and can therefore be recommended for international use.

Key words: coaches and club officials; health promotion profile; setting; youth sports club

INTRODUCTION

Settings-based health promotion, known as 'Healthy settings', is acknowledged as one of the essential approaches in health promotion today (Dooris, 2004; Orme *et al.*, 2007). Settings approach has been conceptualized in various ways. One of the most illustrative definition is the one in which Dooris (Dooris, 2004) separates three key elements of the approach '(i) creating supportive and healthy working and living environments, (ii) integrating health promotion into daily activities of the setting and (iii) recognizing the fact that people do not operate in just one setting and that any one setting impacts

outside of itself'. Individual's health behaviours, and changes in them, form the ultimate aim. It is intended to achieve this by influencing the environmental and cultural factors of various settings (Whitelaw *et al.*, 2001).

The settings approach has been utilized in city/municipality (de Leeuw and Skovgaard, 2005), school (St Leger, 2001), university (Dooris, 2001), workplace (Engbers *et al.*, 2005), hospital (Pelikan *et al.*, 2001), healthcare (Epping-Jordan *et al.*, 2004) and prison (Whitehead, 2006) settings. Lately, strong emphases have been expressed on finding new settings besides the traditional ones (CCA/CCL, 2007; IUHPE and CCHPR, 2007). Several innovative settings, such

as internet (Korp, 2006), farm (Thurston and Blundell-Gosselin, 2005), sports clubs (Kokko *et al.*, 2006) and sports arenas (Ratinckx and Crabb, 2005), have been presented. A sports club as a setting for health promotion has, however, been studied less.

Sports clubs can be generalized as being the implementation part of the sports systems (Heinemann, 1999). Clubs are settings in which children and adolescents actively participate in sports and where coaches and other adults contribute through their actions. Typically, competition has been the main emphasis of the youth sports clubs (MacPhail *et al.*, 2003). Recently, clubs' health promotion potential has been recognized (Dobbinson *et al.*, 2006; Kokko *et al.*, 2006). This relates to, for example, the fact that a sports club as a healthy setting can generate increases in the active membership (Eime *et al.*, 2008), or that sports clubs play an important role in unifying residents and increase social cohesion in small communities (Townsend *et al.*, 2002).

A youth sports club is a complex and dynamic social phenomenon, and clubs can be seen to have official and unofficial agendas (MacPhail *et al.*, 2003). On the official agenda, clubs have sports-related objectives, such as skill development, whereas the unofficial agenda can have health-related issues. In Finland, most (79%) of the youth sports clubs emphasize healthy lifestyle as an important objective in their activities (Heikkala and Koski, 1999). At the same time, only some health promotion activities have been realized in practice (Kokko and Kannas, 2004).

There are several interventions that have been focused on adolescent athletes and/or executed through sports or sports programmes. Examples are the intervention on female college athletes to reduce eating disorders (Abood and Black, 2000) and the programme on multiple health risk-factors, such as substance use and disordered eating (Elliot *et al.*, 2004). Positive results in favour of sports participation have been found. Nevertheless, sports have been used as a vehicle to execute these health-related interventions or programmes. The present concept of a health promoting sports club (HPSC) aims at, in parallel to what Timpka *et al.* (Timpka *et al.*, 2006) have argued for injury prevention, a more comprehensive model than the one in traditional epidemiology and injury causation basis, i.e. a model to

exploit youth sports club everyday activities in health promotion.

The concept of HPSC was introduced in 2004, when the theoretical background for the concept was compiled (Kokko *et al.*, 2004; Kokko, 2005). The concept is based on five strategic key areas for health promotion by the Ottawa Charter (WHO, 1986): building healthy public policy, creating supportive environments, strengthening community activities, developing personal skills and reorienting health services. From these key areas, Kannas (Kannas, 2000) generated preliminary criteria for an HPSC. The HPSC concept has been influenced by the well-being model of Allard (Allardt, 1976) and its application to the school by Konu (Konu, 2002), and also by a five-model typology on settings-based health promotion by Whitelaw *et al.* (Whitelaw *et al.*, 2001).

The initiatives of some settings, such as hospitals (WHO, 2004) and schools (IUHPE, 2006), have created standards or guidelines to describe 'the best practices' within these settings. Similar standards for the HPSC were created in a 2005 Delphi study (Kokko *et al.*, 2006). During the three rounds of the Delphi study, experts evaluated a total of 81 standard proposals. As an outcome, 15 standards were evaluated as highly important by the experts. These 15 standards were compared with the strategic areas of the Ottawa Charter and the missing areas were completed. The result was 22 HPSC standards. These standards were divided into five categories: (i) health promotion policy, (ii) environmental health and safety, (iii) community relations, (iv) health education and individual skills and (v) health services.

On the basis of the standards, indexes were developed to describe the health promotion orientation of youth sports clubs. These indexes were used to study to what extent the clubs in question fulfilled the standards for the HPSC. Differences in the HPSC index were examined with relation to four club-based background variables and between club officials and coaches. Finally, the validity and reliability of the indicators and the instrument were evaluated.

STUDY DESIGN AND DATA COLLECTION

The sports club health promotion orientation instrument consists of 22 items (Kokko *et al.*,

Table 1: Background information of the respondents (sports club officials $n = 248$ –273 and coaches $n = 223$ –240) and sports clubs ($n = 97$)

	Officials		Coaches		Clubs	
	%	<i>f</i>	%	<i>f</i>		%
Gender					Scope of disciplines pursued	
Male	71	189	87	198	Clubs specialized 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
30–49	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 and 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

2006). This instrument was implemented for the first time in this study. The population of the study composed of four (two team and two individual) predominant youth sports in Finland (soccer, ice-hockey, track and field, and cross-country skiing).

The sampling procedure was started by dividing the clubs in clusters (cluster sampling): (i) larger and smaller, (ii) certified and non-certified and (iii) geographical location (South, North, East and West). Thereafter, to ensure objective sampling of the clubs, discretionary, not randomized, sampling was performed. Thirty clubs were selected from each sport. Sampling was done in co-operation with the heads of youth sports of each discipline from their national federations. The sample in this study consisted of 120 clubs. Of these, 97 (81%) clubs participated in the study. These clubs represented the population equally (Table 1). Certification relates to the Young Finland Association, which is the national parent organization for children's and adolescents' sports in Finland. The certification (Seal) is a status that a club can apply for. The club has to fulfil some criteria determined by the Young Finland Association and the National Sports Federations. These criteria consist of nine separate categories, such as how the club has defined its activities (main aims), how well balanced physical activity and educational

matters are, and what the coaches' educational level is (Nuori Suomi, 2006).

Following the club sampling, the respondents were determined. This was done in co-operation with a contact person from each club. The goal was five club officials and five coaches, but eventually the number of officials and coaches was adjusted to at least two respondents from each group. The identity of the respondents was based on the titles, not on the names. A total of 273 sports club officials and 240 coaches acted as respondents.

The data collection was carried out through a survey and entailed a questionnaire study. The survey contained separate questionnaires for both informant groups. The first part of the questionnaires concentrated on the background information of the respondents, such as gender, year of birth, educational level and position within the sports club. The second part focused on the sports club's general health promotion orientation, i.e. the club's health promotion profile. The question used was 'To what extent, in your opinion, do the following alternatives describe your club's activities during the ongoing season?'. The question was the same for both the respondent groups. The 22 items were in exactly the same format as the standards for HPSC (see standards in Table 2). A five-point Likert scale was used for the answers. On the scale, 1, does not describe the

Table 2: Factor distribution and mean values (all clubs) of HPSC index and sub-indices and standard-specific scores of sports club officials ($n = 273$) and coaches ($n = 240$)

Total, sector- and standard-specific	Factor				Index mean value of all the clubs			<i>p</i> -value
	1	2	3	4	Total	Officials	Coaches	
Health promoting sports club index (HPSC index) (range 0–22.00)					12.25	12.80	11.69	0.033
Policy index (range 0–8.00)					4.49	4.57	4.40	0.311
The sports club's regulations include a written section on well-being and/or health promotion and/or health education and/or healthy lifestyle	0.876				0.68	0.71	0.65	0.162
The sports club's regulations include a written section on substance abuse	0.625				0.63	0.63	0.63	0.934
Health and well-being viewpoints are observed in the sports club's decision-making process	0.672				0.66	0.68	0.63	0.268
The sports club supervises the implementation and functionality of its regulations	0.371				0.54	0.55	0.53	0.636
The sports club's health promotion activities and/or state of well-being are evaluated in the Annual Report	0.422				0.24	0.28	0.20	0.040
The sports club collaborates with other sports clubs and/or health professionals on health issues	0.349				0.32	0.30	0.33	0.498
The sports club assures that its sub-groups have agreed regulations and practices	0.313				0.71	0.72	0.71	0.788
Health promotion is part of the coaching practice	0.326				0.71	0.70	0.72	0.232
Ideology index (range 0–2.00)					1.61	1.68	1.55	0.067
The sports club promotes the 'everyone plays' ideology		–0.880			0.77	0.81	0.73	0.044
The sports club promotes the 'fair play' ideology		–0.867			0.84	0.87	0.82	0.882
Practice index (range 0–7.00)					2.96	3.21	2.69	0.024
The sports club discusses its regulations with the Executive Committee, coaches and parents at regular intervals			–0.268		0.49	0.56	0.42	0.007
The sports club pays particular attention to coaches'/instructors' interaction skills			–0.522		0.34	0.38	0.29	0.025
The sports club provides education on health issues or makes provisions for its members to receive such education			–0.894		0.33	0.38	0.28	0.595
The sports club assures that health education is carried out			–0.745		0.32	0.34	0.30	0.895
The sports club promotes individualistic growth and development			–0.311		0.62	0.66	0.57	0.070
Sports injuries are comprehensively prevented and dealt with (including, e.g. the psychological effect of an injury on an adolescent)			–0.503		0.40	0.42	0.37	0.048
The sports club reviews and communicates treatment policies in the case of a sports injury			–0.522		0.46	0.47	0.46	0.505
Environment index (range 0–5.00)					3.19	3.34	3.05	0.279
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)				0.581	0.38	0.39	0.37	0.058
The sports club provides a sports environment that is free of intoxicants during junior activities				0.655	0.73	0.76	0.70	0.060
Coaches and other officials give a good example through their own behaviour				0.582	0.81	0.86	0.77	0.156
Possible conflicts (e.g. bullying) are monitored, dealt with and straightened out				0.321	0.69	0.74	0.63	0.320
In coaching, there is a health promoting element also beyond sports performance (within the sports club's activities)				0.314	0.58	0.59	0.58	0.858

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. The third part of the questionnaires dealt with health promotion as part of the coaching practice, but it was not used in this article.

In order to obtain background information on the clubs, another questionnaire was sent to the contact person of each club. This questionnaire consisted of nine questions regarding the club in question. For example, whether the club was a general club or specialized in one sport, what the discipline of the club was, if the club was certified or not, and what the membership was (Table 1).

The data were collected in two parts: winter sports clubs in March–April 2007 and summer sports clubs in August–October 2007. Each sports club was contacted by phone to find out if the club in question would participate, who would participate from each target groups, how the questionnaires would be delivered and where they would be filled-in. The contact persons distributed the questionnaires to the respondents, who answered the questions anonymously. When a sufficient number of questionnaires were returned to the contact person, he/she mailed them to the researchers. The club's background information questionnaire was returned at the same time. In all the cases, it was filled-in by the contact persons.

DATA ANALYSIS

The data analysis was started by reviewing the frequency and percentage of distributions. The associations between the variables were examined by cross-tabulation and a χ^2 test. To define the health promotion profiles of the clubs, an HPSC index was created on the basis of questions concerning the standards of an HPSC. For most of the clubs, there were more than one respondent. When the reliability between several respondents from the same club was examined, it was noticed that the intraclass correlation coefficient values were rather low. This is why a mean value of the answers was used. In addition, the original five-point scale was reduced to a two-point scale. A zero was given as the value for the answer 'The standard in question describes our club to some extent at the most', and one for the answer 'The standard in question describes our club well or very well'.

The range of the HPSC index was between 0 and 22. Internal consistency of the HPSC index was dissected by Cronbach's alpha coefficient and it was high (0.89).

For further analyses, the clubs were divided into three categories depending on the HPSC index values. To reach a higher health promoting status, the club needed to have an index value of ≥ 15.00 . The clubs that had an HPSC index value of 11.00–14.99 were classified as moderately health promoting, and the clubs that scored < 11.00 as lower health promoting. The differences between the club officials' and the coaches' perceptions were analysed by logistic regression.

The associations of the HPSC index with the background variables were examined by an adjusted model of logistic regression. The background variables that were studied were: (i) general vs. one discipline, (ii) certified vs. non-certified, (iii) team (soccer and ice-hockey) and individual (track and field and cross-country skiing) and (iv) different sizes (large, average and small) 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. Equivalent cut-off points for individual sports clubs were 30–140 participants for small, 141–430 for average and ≥ 431 for large.

To describe how different dimensions of health promotion had been acknowledged by the clubs, an HPSC index was formulated on the sub-indices by exploratory factor analysis. A four-factor model was the optimal (Table 2). The Cronbach's alpha coefficient values for these factors varied between 0.62 and 0.85. The factors were transformed to sub-indices and named as (i) policy index (range 0–8.00); (ii) ideology index (range 0–2.00); (iii) practice index (range 0–7.00) and (iv) environment index (range 0–5.00).

In order to classify the sports clubs, each of the sub-indices was divided into three categories. Under the policy index, ≥ 5.50 was needed for a higher health promoting status, and if a club got < 4.00 , it was categorized as lower health promoting. The cut-points for higher health promoting were ≥ 1.50 under the ideology index, ≥ 4.5 under the practice index and ≥ 3.5 under the environment index. The

Table 3: Distribution of youth sports clubs ($n = 97$) as lower, moderately or higher health promoting, categorized by HPSC index and sub-indices (%)

	Lower health promoting	Moderately health promoting	Higher health promoting
Sport club's health promotion orientation (HPSC index)	33	44	23
Sports club's health promotion policies (policy index)	39.5	42.5	18
The ideologies within the sports club's activities (ideology index)	8	20	72
Sports club's health promotion practices (practice index)	46	22	32
Sports club as a healthy environment (environment index)	43	45.5	11.5

clubs that scored <1.00 (ideology index), <3.5 (practice index) and <2.5 (environment index) were classified as lower health promoting.

RESULTS

Characteristics of the respondents

Most of the respondents were married or in a common-law marriage and male (Table 1). Two-thirds of them were 30–49 years old. Four-fifths of the 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 official's educational background was distributed rather equally between upper secondary, 2 year post-secondary, Bachelor's level education, and Master's level education.

The criterion for being a club official was that the person held an official status in the club. 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%). The criterion for being counted as a coach was that person in question was currently coaching 14–16 years old boys. 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 4 years and over, and half at least 7 years. Two-thirds

had coached their current athletes for at least 3 years.

Half of the clubs were 'general clubs' with several disciplines. The other half specialized in one discipline (Table 1). Almost half of the clubs were team sports clubs, and slightly over half individual sports clubs. Of these, 26% were soccer, 22% ice-hockey, 27% track and field and 25% cross-country skiing clubs. The size of the clubs was divided equally between small, average and large clubs. Slightly less than half of the clubs held a certification from the Young Finland Association (Seal Clubs).

Health promotion profile of the clubs

The average HPSC index of the sports clubs was 12.25 ± 4.04 (Table 2). The variation between the clubs was large. For example, the club that scored lowest got an HPSC index value of 2.75, whereas the club with the highest score reached an HPSC index value of 18.75. None of the clubs reached the maximum value of 22.00. Every fourth club was higher health promoting (≥ 15) and every third recognized health promotion in its activities less (<11.00 , lower health promoting) (Table 3).

The sports club officials were twice as likely to evaluate their clubs on a higher level of health promotion than the coaches (OR = 2.04, $p = 0.041$). Every third club was evaluated as higher health promoting by the officials, and every fifth by the coaches. Respectively, 15% of the clubs were evaluated as lower health promoting by the officials, and every third by the coaches.

Youth sports clubs recognized 'fair play' and 'everyone plays' ideologies best (ideology index value 1.61 ± 0.54), and 72% of the clubs

reached the higher health promotion level (Table 3). The ‘fair play’ ideology was recognized better than the ‘everyone plays’ ideology. The clubs scored relatively high also on the environment index, the mean value being 3.19 ± 0.89 . Still, only every 10th club reached a high level of health promotion. The standard ‘Coaches and other officials give a good example through their own behaviour’ was recognized best, and the standard ‘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)’ least.

The policy index of the sports clubs was fairly low: 4.49 ± 1.46 . Less than one-fifth of the clubs achieved a higher health promoting status, and about two-fifths were both moderately and lower health promoting. The standards concerning health promotion as part of the coaching practice and as a written regulation of the club and its sub-groups were recognized best, whereas evaluation and collaboration received less attention. On a practical level, the clubs recognized health promotion least (practice index value 2.96 ± 1.82). Even though every third club was on a high level in health promotion, nearly half scored low. Individualistic growth and development was recognized to some extent, but other health promotion practices rather seldom. Standard-specific values can be found in Table 2.

The variation in the sub-indices mainly followed the variation in the HPSC index. There were a few exceptions to this. To illustrate this, three differently scored clubs are demonstrated in Table 4. Club A scored high in total (HPSC index) and on the ideology and practice indexes, but moderately on the policy and environment indexes. Club B reached a moderate level on the HPSC index and the other indexes except ideology. Club C ended up on a low level in total and on every other index except ideology. The ideology index score was on a high level with all the clubs. The difference between clubs A and B was mainly on the practice index and to some degree on the policy index. Club C was evidently less health promoting, except on the ideology index, than A and B.

Associations between the club’s HPSC index and background variables only existed in the Certification variable. Certified (Seal) clubs were two and a half times more likely to recognize health promotion on a higher level than

Table 4: Example of three clubs: variation between clubs on the HPSC index and sub-index values (mean value)

	Club A	Club B	Club C
Sport club’s health promotion orientation (HPSC index)	15.25 ^a	13.35 ^b	9.33 ^c
Sports club’s health promotion policies (policy index)	5.08 ^b	4.40 ^b	3.67 ^c
Ideologies within sports club activities (ideology index)	2.00 ^a	2.00 ^a	2.00 ^a
Sports club’s health promotion practices (practice index)	4.50 ^a	4.00 ^b	2.00 ^c
Sports club as a healthy environment (environment index)	3.00 ^b	2.75 ^b	1.33 ^c

^aHigher health promoting.

^bModerately health promoting.

^cLower health promoting.

non-certified (OR = 2.36, $p = 0.016$). More than every third of the certified clubs reached the higher health promoting level, whereas only a fifth of the non-certified clubs did the same. At the opposite end, 16% of the certified clubs and 28% of the non-certified ended up at a lower level of health promotion.

DISCUSSION

In Finland, leisure time sport activities for children and adolescents are mainly organized by sports clubs. There are 6000–7800 sports clubs (Koski, 1999) and almost half (42%, 417,000) of the children and adolescents aged 3–18 participate in club activities (SLU, 2006). This creates substantial and untapped potential for clubs to carry out health promotion as a part of their activities. Despite this potential, youth sports clubs’ health promotion activities have been studied to a lesser degree. This study is the first to examine youth sports clubs as a setting for health promotion.

The perceptions of the club officials and coaches indicate that Finnish youth sports clubs are fairly health promoting: the clubs in the study met an average of 12 HPSC standards out of 22. On the other hand, only 23% of the clubs reached a higher health promoting status. The clubs that reached this status had recognized health promotion quite comprehensively. There was a clear polarization between the clubs. This

notion gained even stronger significance when health promotion was reviewed through the sub-indices. There were clubs that reached quite a high total HPSC index score but had some low sub-indices values. The ideologies (ideology index) and environmental issues (environment index) were recognized best; these are perhaps closest to sports and sports club's daily activities. Health promotion policies (policy index) and practices (practice index) are probably still less recognized in this setting. Since this study had quite a unique approach and the point of view was new, it is difficult to compare the results with other studies. With this notion, these results were fairly parallel to Dobbinson *et al.* (Dobbinson *et al.*, 2006), whose results showed that some health promoting policies had been generated throughout sports clubs in the Victoria region in Australia. Similar kinds of variation within these policies and between clubs were also found.

The study showed that youth sports clubs that held the certification (Seal) of the Young Finland Association had two and a half times higher probability to recognize health promotion well compared with non-certified clubs. This may be predicated by the fact that certified clubs had received the Seal because they had already met certain educational criteria and they already had wider perspective within their activities. This result may also be due to the stronger investment in health promotion by the national federations which cooperate with Young Finland in the Seal Concept. According to Eime *et al.* (Eime *et al.*, 2008), health policies are not conducted widely by sports clubs because of the limited capacity of the clubs and lack of support by the parent organization.

The result that there were no associations between the HPSC index and other background variables indicates that the lack of health promotion orientation of the sports clubs is prevalent regardless the size, discipline or location. Actions to improve health promotion activity in youth sports clubs are needed within and between most of the clubs.

It can be argued that this study points out the strengths and weaknesses in the health promotion activities of the clubs studied. For example, even if there are still many areas of health promotion that need further development, the health promotion profiles of the youth sports clubs show that the clubs already impact on the health of children and

adolescents in more ways than 'just' through physical activity.

Limitations of the study

Most of the sports club activities in Finland rely on voluntary work and the variation in the actors is wide. This also affected this study adversely, as no comprehensive registers of direct contact information were available. The respondents had to be approached through a contact person of the club, and therefore the contact persons played an important role. The inactivity of a contact person might have caused failures in the respondent rate and distortion of data, even if each contact person was contacted by telephone. At the same time, they had the opportunity to refuse to participate in the study. Although, none of the clubs refused to participate, not all returned the questionnaires.

Many background factors were included to secure heterogeneous sampling. This was important because sports disciplines differ on many issues. As Moore and Werch (Moore and Werch, 2005) and Paretto-Watel *et al.* (Paretto-Watel *et al.*, 2002) have pointed out, the relationship between substance use and sports depends on the sports in question, e.g. between team and individual sports. Also the level of participation in sports has certain effects. According to Rodriguez and Audrain-McGovern (Rodriguez and Audrain-McGovern, 2004), adolescents with only occasional team sport participation have three times higher risk of adopting regular smoking habits than those who regularly participate in team sports. One decision was made to facilitate data collection. Only young male athletes and their clubs were included in the study. This should be borne in mind when the results are generalized.

The health promotion profiles of the youth sports clubs were examined in this study by calculating the index value (HPSC index). As the reliability of the answers between several respondents from the same clubs was fairly low, the index was formulated through the mean values of the answers. This evokes a question: 'Why do different club actors perceive the club activities so differently?'. One possible explanation, and at the same time, a limitation of this study, is due to self-reported data. It may be subject to social desirability biases. In addition, the positions between the sports club officials varied. Also, the positions between the club

officials and coaches varied. Does a member of the executive committee have the same awareness of the club's matters or activities as a coach who works with the athletes on a daily basis? On the other hand, the variation between the respondents also validated the resolution to try to reach several informants from each club. This provided more reliable information on the average situation of health promotion within these clubs and thereby increased the validity of this study compared with studies with one informant from a single club.

Further limitations of this study were due to data collection. First, when the data were collected at the latter half of the season to ensure a correct allocation of the answers, a question arose whether the respondents remembered the policies defined at the beginning of the season. The above-mentioned mean value index was used to reduce the effect of this limitation. Secondly, the data were collected in two portions; it was important to make sure that there would be no wide differences between the winter sports clubs and the summer sports clubs concerning the proportions of the answers and the background variables. The answers were compared, and proportions turned out very much alike with no significant differences on background variables. Thus, all the respondents could be included in the same data.

Implications for practice and future research

The study shows that youth sports clubs in Finland are fairly health promoting in general, but only every fourth club has realized health promotion with a comprehensive ethos. Every third of the clubs expressed very little interest in health promotion. Thus, there is still a lot of potential for further development in the whole field of sports.

Finnish sports clubs receive part of their funding from municipalities and sports federations from the state. This has been regarded as an obligation to recognize health promotion within their activities (Kokko *et al.*, 2004; Kokko, 2005). The standards and indicators tested in this study offer a reliable instrument for the financing parties to evaluate the health promotion orientations of sports organizations and clubs.

The positive results in favour of the Young Finland Seal Concept support the certification system. A similar system or integration with the Seal System could possibly be one way to

improve health promotion in the sports club activities.

The HPSC index has proved to be a viable research tool for describing the health promotion orientation in youth sports clubs' activities. Even though the sports systems in different countries vary from the Finnish system, the HPSC index could be recommended for international use. Indeed, it would be interesting to adapt this instrument and these indicators to different kinds of sports systems worldwide and compare health promotion orientation within youth sports clubs between countries.

In future, it would also be interesting to study sports disciplines other than the ones studied here, consider athlete genders fairly, and execute health promotion intervention studies for the clubs. Also, more close examination of health promotion policies and practices of the clubs and a study of coaches' daily health promotion activities would be interesting. The latter two research topics will be examined at the subsequent stages of this study.

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