ATHLETIC CAREER DEVELOPMENT IN RELATION TO HEALTH ISSUES

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Abstract

The objectives of this study were to examine: (a) how athletes perceive a relationship between their athletic career and health; (b) how health issues appear across athletic career stages; (c) how athletes perceive health related strategies in regard of the future career goals. The theoretical frameworks included: the lifespan model on developmental challenge; the circle of health; the developmental model on transitions faced by athletes; the perceived health and sport/exercise participation model. The informants (n=4) consisted of two team athletes and two individual athletes at national or international competitive level. In-depth interviews were carried out based on a semi-structured interview guide specially created for this study. Results are treated and presented as four case studies, and four category profiles describing: the importance of health to the athletic career; the positive influence of athletic career on health; the negative influence of athletic career on health; health related strategies in the future. The results showed that athletes perceive an obvious and important relationship between the athletic career and health. At the same time a lack of health awareness at early career stages was discovered. It was not until the athletes advanced to a higher competitive level or their health decreased they started to think of health. Athletes also demonstrate low awareness of health in regard to future career goals. The athletes’ experiences were discussed in relation to the theoretical frameworks and previous research.

*Key words:* Career development, competitive sports, health

**Sammanfattning**

Syftena med föreliggande studie var att undersöka: (a) hur idrottare uppfattar ett samband mellan idrottskarriär och hälsa; (b) att undersöka hur hälsopåverkan uppträder under en idrottskarriärs olika stadium; (c) att undersöka hur idrottare använder hälsotaktiker med tanke på framtid i karriär. De teoretiska referensramarna inkluderade: the lifespan model on developmental challenge; the circle of health; the developmental model on transitions faced by athletes; upplevd hälsa och idrotts/motionsdeltagande. Försökspersonerna (n=4) bestod av två lagidrottare och två individuella idrottare på nationell eller internationell tävlingsnivå. Djupgående intervjuer genomfördes med hjälp av en semi strukturerad intervjuguide speciellt tillverkad för denna studie. Resultatet bearbetades och presenterades i form av fyra fallstudier och fyra kategoriprofiler som beskriver: hur viktig hälsan är för idrottare; den positiva inverkan av idrottskarriären på hälsa; den negativa inverkan av idrottskarriären på hälsa; hälsotaktiker i framtid. Resultatet visade på att idrottare upplever ett tydligt och viktigt samband mellan idrottskarriären och hälsa, men det finns samtidigt en låg hälsomedvetenhet i tidiga karriärstadien. Det är inte förrän idrottare avancerar till en högre tävlingsnivå eller får en sämre hälsa som de börjar tänka på hälsan. Idrottare demonstrerade också en låg hälsomedvetenhet i förhållande till framtid i karriär. Idrottarnas upplevelser diskuterades i relation till de teoretiska referensramarna och tidigare forskning.

**Nyckelord:** Hälsa, karriärutveckling, tävlingsidrott
Introduction

"The athletic career has affected health a lot, of that I am sure. If you have a fine career, I think you will have a good health . . . and if you turn it around . . . those who maybe did not have the best of health . . . they have not got so far in their career either”.

This statement (expressed by a participant in the present study) reflects upon the importance of career development in relation to health issues. According to the quotation, a successful career involves a good health. A non-successful career involves a somewhat not so good health. An athletic career can mean different things for different people. For some people the athletic career is what they do to make a living. An athletic career is not as long as a working career, and for some it ends sooner than was originally planned. An individual needs to have a good health to be able to achieve what he or she has set out to do. Stambulova (in press) states that: “health is definitely among the most important internal resources for athletes, whereas a lack of health inevitably becomes a barrier to reach sport related goals or meet other career demands”. Health is apparently very important, and there can be a lot of things in the individual’s life that affects health. In what way health and athletic career influence each other is very interesting to consider. A desirable approach is to investigate how the athletic career affects health as an ongoing event developing through different/several stages.

The purpose of this study is to examine the athletic career development in relation to health issues. The athletic career development and health are seen from a holistic perspective.

To properly understand the theories and models chosen for this paper, a person needs to have an understanding of certain key terms that follows.

Defining key terms

Athletic career development

“Athletic career is a term for a multiyear sport activity, voluntarily chosen by the person and aimed at achieving his or her individual peak in athletic performance in one or several sport events. “Career” relates only to competitive sports, but on all its levels. Depending on the highest level of sport competitions achieved by the athlete, an athletic career can be local, national, or international” (Alfermann & Stambulova, 2007, p.713).

Another athletic career approach is to consider it “as a developmental event contributing to life span development in and out of sport” (Alfermann & Stambulova, 2007, p.713). It also involves facing stages and transitions at different levels of development (Wylleman & Lavallee, 2004). These stages and transitions will generally occur in an interactive way. Further, the athletic career development is about “balancing practise, competitions, and recovery; balancing sport and other activities; interpersonal relationships and social interactions; rehabilitation after injuries, etc” (Stambulova, 2009, p.64). The definition by Stambulova (2009, p.64) continues with explaining that “each athlete has a unique genetic make-up, personality characteristics and tendencies, compensation mechanisms, and relationships with his or her environment”.

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**Health**

The World Health Organization (WHO) defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (World Health Organization [WHO], 2006). The definition takes all three areas of physical, psychological, and social well-being into consideration. Biddle and Mutrie (2007) suggest that health is a broad concept, which might include for example a “spiritual” dimension.

People have lots of different views on health (Ewles & Simnett, 2003). How you define health and what aspect you think is important depends on the situation you are in. Therefore the health definition is highly possible to change whenever the situation changes. People’s definition of health is also shaped by knowledge, experience, values, and expectations. To a large population health is seen as “to not be ill”. For some people it also implies building up strength, and having resistance power to avoid infections etc. The clinical health population often have a more objective view on health, and is seeing it as absence of a medically defined disorder or handicap (Ewles & Simnett, 2003).

Turning to theories, there is no existing unified theoretical framework on the athletic career development in relation to health issues. Therefore, the present paper searched for existing theories in the separate fields of career development and health. This search for existing literature in the area led to the findings of the below explained theories and models. They are explained according to the mentioned key terms above.

**Theoretical frameworks**

*Lifespan model of developmental challenge*

The lifespan model of developmental challenge by Hendry and Kloep (2002) states that development involves being exposed to, and dealing with large and small challenges from day to day, which will result in learning from it. This response to a challenge will somehow change the individual. If we strive to keep away from challenges there is a risk of limiting our development, and our resources can be drained. The resources are the individual differences, like a resource-“pool” we are born with. These could be either innate, for example reflexes, or they could be learned. Social class and other structural determinants could also create individual differences. The potential resources can be divided into: biological dispositions (health); social resources (social network); skills in various domains (learning); self-efficacy; structural resources (gender, class etc.). These resources are not static, and very much interact with each other. The special individual characteristics can be a resource, a disadvantage, or neutral to a person.

There is a dynamic interaction between the potential resources and the potential tasks to be faced, which both can be influenced by situational factors. If the task matches or slightly exceeds the individual’s resources it is perceived as a challenge. If the individual has a feeling of many resources, or feelings of security, it is possible that coping with challenges will be effective. The security feeling will also influence the individual to approach new challenges. The interaction between resources and task is a key, when facing a new challenge. A “goodness of fit” situation appears when the resources are matched with the task demands. Some people can cope with new challenges, but for some it turns out to be a disaster, and his or her life becomes chaotic. The successfully met challenge will add to the individual resource-“pool”, whereas the unsuccessfully met challenge will drain the “pool”. Out of this, the individual development can increase, stagnate, or decay. It is when the resource-“pool” is full, and the individual experiences boredom that he or she seek to meet a new challenge.
Though, chasing new challenges is not always a sign of development, because this must be within a state of security. Stagnation is likely to turn into decay if there are too many challenges at the same time or one that cannot be met, due to a lack of resources. A sudden loss of resources can be catastrophic for the individual, when specialization on specific resources is targeted. For example, a competitive skier might break his leg and this can be disastrous for the development if the challenge is met unsuccessfully. The skier might not have the proper resources to cope with the injury. This might stop him or her from getting back to competition.

The circle of health model
Coleen (2003) suggests a metaphorical model (see Figure 1), where she mentions the importance of balance to her definition of health. Balance, harmony, and mind-body integration has been mixed with traditional views on health, e.g. physical, mental, social, well-being etc. The components of the model apply to both body (physical) and mind (mental and spiritual). The model is designed after principles of yin and yang that has a great deal of influence in traditional Chinese medicine, and according to this model, the definition of health is optimal function, well-being, and quality of life.

Figure 1. The Circle of Health model (Coleen, 2003).

The model states that activity and performance, and renewal and recovery should be in balance. They are both equally important to health, and functions as a way of getting optimal function, well-being, and quality of life. Physical, mental, spiritual, social, and role functioning are objective and subjective factors within the model on each side, which includes the definition of health. The light (right) side of the model represents activity, “giving out”, taking part in activities, and demonstrating the components mentioned in the model. The dark (left) side of the model represents passiveness, “taking in”, relaxing, and demonstrating normal physical functioning (he or she for example sleeps well). Balancing these two sides should give a promising development of your individual health.

Developmental model on transitions faced by athletes
Wylleman and Lavallee (2004) propose a developmental model (see Figure 2) that has a “beginning-to-end” perspective. It also involves the interactive and developmental nature of transitions at athletic, psychological, social, academic, and vocational level.
The first layer of the model represents the career stages and normative transitions of the athletic development. The transitions include: transition into organized competitive sports at about age six to seven; transition into an intensive level of training and competitions at about age twelve to thirteen; transition into highest level of training and competition at about age eighteen or nineteen; transition out of competitive sports. The second layer is about normative transitions at a psychological level, and the developmental stages of childhood, adolescence, and adulthood. The third layer of the model is about changes in the social development in relation to the athletic involvement, and what is important to the athlete, concerning family, peers and coach. The fourth layer reflects the academic and vocational levels of the athletic development. Academic involves primary, secondary, and higher education transitions. Vocational transitions involve the stages from athletic career to professional occupation. Some of all these transitions may never happen due to different causes.

<table>
<thead>
<tr>
<th>Age</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
<th>35</th>
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<td>Development</td>
<td>Mastery</td>
<td>Discontinuation</td>
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<td>Adulthood</td>
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<tr>
<td><strong>Psychosocial Level</strong></td>
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<td>Peers, Coach, Parents</td>
<td>Partner, Coach</td>
<td>Family (Coach)</td>
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<td></td>
</tr>
<tr>
<td><strong>Academic Vocational Level</strong></td>
<td>Primary education</td>
<td>Secondary education</td>
<td>Higher education</td>
<td>Vocational training, Professional occupation</td>
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*Figure 2. A developmental model on transitions faced by athletes (Wylleman & Lavallee, 2004). The dotted lines indicate an approximation of the age where the transition occurs.*

**Perceived health and sport/exercise participation model**

The most specific theory relating to athletic career development in relation to health is presented below. Figure 3 presents the modified version of the perceived health and sport/exercise participation model by Stambulova, Johnson, Lindwall and Hinic (2006).

First of all, the model postulates that there are two health related tendencies in sport/exercise participation, which together develop a continuum. One pole of this continuum is *healthy sport/exercise participation*, and the opposite pole is *unhealthy sport/exercise participation*. Each particular athlete or exerciser at the moment can be in any point of this continuum but in total tends to be more to one of the poles, i.e. to healthy or unhealthy sport/exercise participation.

Second, the model predicts that healthy sport/exercise participation involves *perception of health as a goal* in sport/exercise (on the basic values/beliefs/attitudes level), using *health enhancing strategies* helping to accumulate health (on the behavioural level), perception of *health as a benefit of sport/exercise participation*, high perceived *health and satisfaction with sport/exercise participation* (on the appraisal level). Alternatively, the model predicts that *unhealthy sport/exercise participation* involves *perception of health as a mean* in sport/exercise (on the basic values/beliefs/attitudes level), a *lack of using health enhancing strategies* that in fact means *draining health* (on the behavioural level), perception of *health as a cost of sport/exercise participation*, *low perceived health* and *dissatisfaction with*
sport/exercise participation (on the appraisal level). Additional factors influencing preference of healthy or unhealthy sport/exercise participation include: an overlap between the images of an athlete/exerciser and a healthy person, goal orientation, physical self-perception profile, self-esteem, and athletic identity (for athletes).

Third, the model emphasizes the importance of micro- and macro- social influences on the athlete/exercisers’ factual preference of healthy or unhealthy sport/exercise participation and also on their possible shifts from one tendency to the other.

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**Figure 3.** Perceived Health and Sport/Exercise Participation model (Stambulova, Johnson, Lindwall & Hinic, 2006).

Fourth, the model predicts potential outcomes of healthy and unhealthy sport/exercise participation. Clear dominance of the healthy tendency most probably leads to continuation of sport/exercise participation while a dominance of the unhealthy tendency most probably leads
to sport/exercise dropout. But any of the dominant tendencies might be reversed, i.e., the athlete/exerciser might make a shift from unhealthy to healthy sport/exercise participation, and also vice versa.

Existing research
Research concerning athletic career development in relation to health issues is a new area where not much has been discovered. However, some research that relates to the area of interest has been found.

Athletic career development perspective
Bruner, Erickson, Wilson and Côté (2009) analyzed English literature journals and highlighted the most frequent used models, definitions, and citations in the existing research field of career development. The results revealed a fraction between a more career- or transition-based emphasis, and a more athletic developmental approach across life-span produced from a stage-based perspective focusing on talent and expertise development. There is also very limited discourse present between these two fractions. The hope is that the field of research will move towards a more systematic and cohesive understanding of athletic development. Wylleman, Alfermann and Lavallee (2004) focused their analysis on the European literature on career transitions. They found that transitions are presently viewed in a holistic life-span perspective. This view included athletic and post-athletic career with transitions also occurring in other domains of athletes’ lives. This is in line with the developmental model on transitions faced by athletes (Wylleman & Lavallee, 2004), and its “beginning-to-end” perspective. Early research on career stages contributed with important findings (for a review see Alfermann & Stambulova, 2007). Stambulova (1994) mentioned five athletic career stages: (1) preparatory stage; (2) beginning of specialization; (3) intensive training in chosen sport; (4) culminating stage; (5) final stage, followed by discontinuation. Côté’s (1999) research revealed four career stages: (1) sampling years; (2) specializing years; (3) investment years; (4) recreational years.

Durand-Bush and Salmela (2002) interviewed Olympic champions and discovered important contextual factors to the athletes’ development, which consisted of parents, coaches, teammates/friends, support staff, other athletes, and school/education throughout four stages of their career: sampling; specializing; investment; maintenance years. Gould, Dieffenbach and Moffett (2002) research about psychological characteristics and their development in Olympic champions revealed that the coach, community, family, the individual himself or herself, non-sport personnel, sport environment personnel, and the sport process were important for the individual psychological development. Also adaptive perfectionism, dispositional hope, and high levels of optimism were new important variables to consider.

Stambulova and Alfermann (2009) mention the importance of creating a more sensitive understanding of the context in career research and assistance to athletes. When collecting cross-cultural data it is important to consider cultural specific differences. Athletes need career assistance with cultural specific demands, such as values, beliefs, and traditions that act as transition barriers.

Career studies focus mainly on career stages and transitions, combining sport and other activities (Stambulova, in press). Health is considered only as a resource in coping with career demands. There is a lack of studies considering careers, especially in elite sports, from a health related perspective (Stambulova, in press).


**Health issues**

As a negative aspect of health, stress is often an issue to conduct research on. Scanlan, Stein and Ravizza (1991) found five main sources of stress: negative aspects of competition, negative significant-other relationships, demands or costs of skating, personal struggles, and traumatic experiences. The conclusion they made was that there are individual differences to elite athletes’ sources of stress, and they experience stress from both competition and non-competition. Competition-related stressors were similar among elite and youth athletes. Similar findings were later presented by Noblet and Gifford (2002), and some of the non-competition stressors were: lack of feedback, difficulty balancing sports and study commitments, and job insecurity. Hanton and Fletcher (2005) addressed important major organizational stressor, which included influences from position insecurity, economics, and advancement and development of the career. Ambiguous selection criteria, perceived unfairness and inappropriate or prolonged selection process, or late selection are those factors concerning the selection process that can cause stress.

Injury is a very important issue to consider in an athletes’ career. Risk factors to sport related injuries are type of sport, equipment, and individual physical and psychological characteristics (Johnson, 2007). Johnson (2007) reviewed the existing theoretical approaches and empirical findings, and revealed that different psychosocial factors such as anxiety, emotional state, life changes, coping resources, and social support are directly or indirectly linked to injury outcome. Research on positive health effects of competitive sport involvement, and conditions for a long-lasting career is in minority (Stambulova, in press).

Alvmyren (2006) study on athletes’ perceived health, goal orientation, athletic identity, self-esteem, physical self perception and sport satisfaction found that social influences on athletes contributed more to unhealthy than to healthy sport participation. The theoretical framework of the study included the perceived health and sport/exercise participation model (Stambulova et al., 2006), and concluded that healthy sport participation contributed to satisfaction with health and sport participation. Unhealthy sport participation contributed to dissatisfaction with health and sport participation.

Looking solely at lifespan research on health, findings shows interesting determinants for health. Research by Vamos and Vamos (2008) mentioned that specific health risks become more critical during certain stages in lifespan (among women). They also addressed that a holistic nature of well-being should involve physical, mental, social intellectual, spiritual, occupational, and environmental dimensions of health. There is a difference in health between individuals, but also between men and women.

Physical, cognitive, social, and personality development are important concepts concerning health and the continuum of growth and development across the lifespan (Leifer & Hartston, 2004).

Relevant definitions, theories, models, and research have been displayed. The summarization of it all enables us to see that there is a lack of knowledge in athletic career development in relation to health issues. Therefore, the objectives of this study are to examine:

(a) how athletes perceive a relationship between their athletic career and health.
(b) how health issues appear across athletic career stages.
(c) how athletes perceive health related strategies in regard of the future career goals.
Method

Participants
The study involved, and was pre-set to, 4 competitive athletes from national to international level. Three males and one female with a mean age of 24 ± 2.3 years old were chosen by convenience sampling. Two of the athletes represented individual sports: golf and long distance running, and the other two athletes represented team sports: floorball and ice hockey. The selection criteria for participants in this study were (a) taking part in competitions on a national or international level, (b) being involved in competitive sports for at least 15 years, and (c) being involved in either individual sports or team sports.

Instruments
A semi-structured interview guide “Athletic Career Development in Relation to Health Issues” was created. The instrument in its whole is attached in Appendix 1. The questions in the interview guide were based on, and supposed to reflect, the theories described above. An in-depth interview was of interest and the interview guide consisted of five sections: (1) background information, (2) sport and health, (3) career development, (4) career and health satisfaction, and (5) career future.

In the first section, five questions collect information of the athletes’ background, for example, age, gender, and years involved in competitive sports.

In the second section, three questions collect information of sport and health, where the second question includes a 10-point scale measuring the importance of health to the informants’ athletic career. A high score represents a high importance and a low score represents no importance. In the third question the informants were asked to state positive and negative influences of their athletic career on health.

In the third section, about career development, the informant was asked to outline the whole athletic career up to present day on a piece of paper, and is asked to mark out stages, name them, and set an approximate age. The informant is also asked to mark out specific important career happenings. Then there are eight specific topics to discuss to each marked out stage, including practice; competition; importance of sport; social support; pressure; injury/overtraining; health related strategies; perceived health.

In the fourth section, two evaluative questions collect information of athletic career- and health-satisfaction.

In the fifth section, three questions collect information of the informant’s perceived career future, goals, and related health strategies.

Procedure
Initial contact was made by e-mail, which was sent out to sports federations where possible participants could be found. Further contact with interested individuals was then made through e-mail or phone, and they were informed about the interview and the topic of the present study. The interviews were conducted at a place and time, decided by the informants, and tape-recorded on the interviewee’s permission. Prior to the interview, the informants were able to ask questions, and were informed of ethical issues. They were informed of the voluntary participation, and their right to drop out at any time. The information received from the informants was treated with careful confidentiality, which they were also informed about.
Three of the interviews took place in a closed room at a university library, and the fourth took place in a coffee room at the informant’s workplace. After the interview the interviewer filled out an after interview debriefing form, reporting about the process of the interview. This was made because of the fact that the interview guide is new and this is valuable information if the guide is going to be used in the future. A summary of four debriefing forms (see Appendix 2) demonstrates that the time and place when conducting the interviews were quite good. The interviews were from 34 to 68 minutes long, and the written interview-texts were between 8 and 13 pages.

Analyses

The qualitative data was analysed from a post-positivist perspective using inductive and deductive analyses in the following steps:

First, the interview full-texts were read thoroughly two or three times and relevant raw data to the particular question were marked, and irrelevant data were deleted.

Second, four case studies were made upon the interview full-texts of the following sections; Background information; Why they participate in competitive sports; How important health is to the athletic career so far; Positive and negative influence of the athletic career on health; Career Development (including the 8 topics); How much satisfied they are with the athletic career; How much satisfied they are with their current health; For how long they plan to stay in sports; What they plan to achieve in their athletic career in the future; Health related strategies in the future. A summarization of the four case studies was then done upon each of the mentioned sections above.

Third, the marked raw data of the full-texts was translated into English, and four individual profiles were done (see example in Appendix 3).

Fourth, the raw data of the individual profiles were inductively and deductively analysed. The following four category profiles were derived from the interview guide when creating high- and low-order themes: The importance of health to the athletic career; The positive influence of athletic career on health; The negative influence of athletic career on health; Health related strategies in the future (see Appendix 4).

The quantitative data were treated in SPSS to calculate means, and standard deviations.

Results

The results of this study will be presented in two sections. The first section presents four case profiles according to the parts in the interview guide (all of the names of people or cities etc. are fictional to ensure the anonymity of the informants). The second section will summarize the cases, and presents the category profiles.

Case 1: A professional floorball player on international level

Background information

Peter, a 28-year-old male floorball player. He has been involved in competitive sports for about 20 years of time, competing up to an international level. His main reasons for participating in competitive sport are that attending competitions and being in a team is fun.
The importance of health to the athletic career
Peter states his health as completely determinant to his athletic career, and puts it in a bigger perspective where other life aspects should be in balance (i.e. at home or at work).

Positive and negative influence of the athletic career on health
Peter’s positive experiences in his athletic career in regard of his health include being very fit. He also got exercise as a routine, and will even after termination. It is positive for him that he is surrounded by a lot of people and teammates, he is forced to eat and sleep well, and cannot party. The negative aspects on health is that he sometimes feels that he has to play, even though he suffers from a minor injury or is feeling ill. He has to sacrifice time with his family.

Athletic career development
The number of stages reflecting Peter’s athletic career is six, and they include: “Youth/junior teams”; “Senior team”; “Gothenburg”; “6 years”; “France”; “Eskilstuna”.

1. “Youth/junior teams” (8-14 years old, and these are approximate ages)
   Peter had practice about three times a week, and he perceived it all as fun. He had two competitions every week. Sport was very important to him because all of his friends were in the same team, and they often played in the streets when there was no practice to attend to. Peers and parents were very important to him. He did not feel that anybody pressured him to achieve anything. He had a good health and was very seldom ill, but health was nothing he thought of.

2. “Senior team” (14-18 years old)
   The number of practise sessions increased to six- to seven times a week, because he was now involved in youth-, junior- and senior team. He did not perceive it as demanding, despite that he also could play up to four games a week. The importance of sport did not change, but his peers became even more important, and his parents were not as involved anymore. Peter felt a slight pressure to achieve, and to be picked out to play in the following game. He won two gold medals in the Swedish national youth- and junior championship during this stage. His involvement in the national youth team made him feel that others expected him to achieve more in his team club than his teammates. His health was continuingly well, but it still was not anything he reflected on.

3. “Gothenburg” (18-20 years old)
   Peter transferred to a different team. He now only participated in the first team, and had practice four times a week, and the sessions were from one and a half hours long up to two hours. He played one game a week, and sport was equally important. He spent less time with the new team outside of sport, because he still wanted to hang out with his old friends. His parents now only functioned as an audience, but they still meant much to him. He was a young player that played in the first team, and did not believe that the team had much pressure on him. Mostly he experienced self-pressure to achieve his goals. He started to be more aware of health and why he performed good or bad. Preparations concerning diet and practice crossed his mind. The focus on floorball also became more intense, but he also had other things to think about. He graduated and started to work. He thought that he maybe had a better health at earlier stages.
4. “6 years” (20-25 years old)
Peter moved 150 kilometres to a different city to play in a new team. Practice and games were of the same amount as before, but were more efficient, and had a better quality. The people he was hanging out with on practise, in the evening, and on weekends, were his teammates. He had no experience of playing in the first division, and did not feel any pressure to achieve, but this increased a lot during this period of six years. He experienced a career highlight when he won the gold medal in the Swedish Floorball Championship. He started to study and therefore became aware of health in a different way. It was necessary to start focus on it, because he could see that those who did not focus on it were affected by it negatively. He thought he had to be thorough about his health, but also acknowledged that his health actually was good.

5. “France” (26-27 years old)
Peter moved to a new country to become a pro-floorball player. The amount of practice and competitions were the same, but he now had other things to focus on. Sport was still number one to him, but he experienced a new country, a new language, new friends, and a lot of other things that had to work out smoothly. He had a partner that meant a lot to him in the process, and it was important to him that they had a good time alongside of sports. Peter experienced the pressure from the club as higher than ever before. The club expected him to win the point table, and to help the team win the gold medal. He experienced a lot of minor injuries during this period. He was unable to play every now and then, and could not achieve his best. His thoughts about to why the injuries appeared concerned the high pressure, and that he should have rested sometimes when he did not. A lot of other things occupied his mind during this period, and he felt scattered. Prior to him moving to be a pro he felt he thought much of health. He knew quite well what was required, and he tried to be prepared. His injuries made health a bit worse, but he experienced a lot of fun things in his spare time that outweighed this.

6. “Eskilstuna” (27-28 years old)
Peter moved back from France to play in his previous team. The amount of practice and competitions were the same, but sport was now less important. Peter and his partner have got a baby, which took a lot of effort. He believes the pressure was the same but he did not care of it as much. He felt good about the fact that floorball was not everything. He relates that feeling to when he was at the first stages in his career, when it was all about having fun. He focused less on sports and was able to enjoy other aspects of life that he used to neglect. He nowadays feels that he has found a good balance in life.

Career and health satisfaction
Looking back at his career, Peter felt satisfied, but there were some things he might think he should have put more effort into. Peter was very satisfied with his current health, and he felt that he had nothing to complain about. He was very seldom injured, and felt well most of the time. He was in a good situation at home, thought it was fun to work, and it was almost always fun to play floorball. He believed that the athletic career satisfaction and health satisfaction level are somehow connected. The athletic career has affected his health a lot. He states that; “if you have a good career you have a good health”. At the same time he addresses that those who did not have a good health, did not get so far in their career. It is quite clearly connected, according to Peter.

Career future
Peter will continue to compete on high competitive level only until the current season ends, which is in about half a year. He would like to finish with a gold medal in the Swedish
floorball championship. Peter knows what it takes to accomplish his goals. He states that he cannot do more, and it will depend on other things if they win or not. When terminating his elite career, Peter thought that he might notice a big difference. Perhaps there will be more occasions to live unhealthy. He also thought he might be able to do other things for his own enjoyment.

*The importance of health to the athletic career:* 10
(On a scale from 1 to 10, with 10 being very important and 1, not at all important)

*Career satisfaction level:* 8
(On a scale from 1 to 10, with 10 being very satisfied and 1, not at all satisfied)

*Health satisfaction level:* 10
(On a scale from 1 to 10, with 10 being very satisfied and 1, not at all satisfied)

**Case 2: A national level ice hockey player**

*Background information*
Fredrik, a 23-year-old male ice hockey player. He has been involved in competitive sports for about 19 years of time, and competing up to a national level. His main reasons for participating in competitive sports is for his own health’s sake, and because it is fun. He also gets to learn how to cooperate, and how to act, as a group.

*Health importance to the athletic career*
Fredrik thought that health was very important to his athletic career, because everything depends on what you eat, how you sleep, and practice. It is about the way you prepare yourself in the best way to create possibilities to achieve maximum.

*Positive and negative influences of the athletic career on health*
Fredrik’s positive experience in his athletic career in regard of his health include that he is more or less forced to exercise. This makes him feel better, both physically and psychologically. The negative experience includes injuries. There is also a chance to get struck by epidemics in team sports.

*Athletic career development*
The number of stages reflecting Fredrik’s career is four, and they include: “Learning”; “Build up”; “Pleasure”; “Advancement”.

1. “Learning” (4-13 years old)
Fredrik had practice about three to six times a week. He played a lot of different sports, and it was all about learning techniques and the basics. It was his choice, and he perceived it all as fun. He liked to play with his friends. He had competitions once a week, and it went quite well. Sport was something really important to focus on for him, because it was fun. He had a lot of support due to the fact that all of his friends were in the same team. His family were a big sports family that supported him. He had no pressure from outside, but as he grew older he started to put pressure on himself. He did not have any health strategies during the stage, because it was all about having fun. He perceived his total health as good.
2. “Build up” (13-15 years old)
Fredrik started to train physics a bit more. He had practice four to five times a week, plus a little bit extra physics. Competitions were once a week. He thought that everything became more exciting and a little bit more serious, which he perceived as fun. Sport was still number one to him, and he had the same support as before. He thought that his coaches started to put more pressure on him to achieve, and to take an extra step in his development. There were also important Swedish national tournaments he wanted to be selected to. He became more aware of health at this stage, much because his team brought in a specialist on diet and health. This person talked about what to do, and he came back every year. Fredrik perceived his health as good during this stage.

3. “Pleasure” (15-20 years old)
Fredrik took an important decision to focus not only on ice hockey, but other things in his life as well. His ice hockey team started to practice during summer seriously, up to seven times a week. Fredrik was not prepared to sacrifice all of that time, because he also wanted to play football. So he went from an elite club to an amateur ice hockey club. Now he could play football in the summer and hockey in the winter, only for pleasure. He now gave up on a dream to play in the national team and in the NHL. He had support from his family and coach in this decision. With his new team he had practice five times a week, and he felt he could develop in his own pace without the pressure to achieve. He had one competition a week and made good results. Sport was not as important anymore and he could spend more time with his friends outside of sports. He felt relaxed during this period. Fredrik suffered from a knee injury during this period. A chip from the meniscus got pinched, but he did not have to make surgery. He rested for a month and then began with long walks, and took it step by step. He could not start with summer practice at once with this injury. He did not think of health at this stage, and he perceived his total health as not as good as before. During a summer he grew a lot and did not eat properly.

4. “Advancement” (20-23 years old)
Fredrik made up his mind to go for the top again in ice hockey. He moved to another city, and at the same time he attended try-outs to a division three team. He was successful, and now he put more focus on ice hockey again. He had a total focus on nothing else than practice. He experienced practice as more professional and that there was a thought behind every session. He practiced seven times a week, and they were a bit shorter than before but more intense. Competitions were two or three times a week. The outcome of the games was not good, and they had problems with getting the group together. The club had financial problems, and during one season up to sixty percent of the players left the team.

At one time Fredrik also got his first job. Now he had to put an equal amount of focus on both job and ice hockey. His parents supported him and thought it was fun that he advanced in hockey again. They urged him to do his best at work as well. He still had a lot of friends in the team, which he felt a lot of support from. At the same time he felt much higher pressure to achieve from teammates and coaches. No one could fall out of the frame, because then it would get noticed easily. He also had a lot of pressure from himself. Fredrik had two major injuries during this stage. At one time his shoulder joint was dislocated, and it affected his exercising a lot. This happened during an intensive period, and he was out of practice for five weeks. He also missed a lot of games, and had a hard time getting in the team again. A financial disaster struck the club and a lot of players left the team. Fredrik suddenly became a key player. He now had to take a lot of responsibility. The next injury was a skate that hit his knee and cut it open. He had to rest for three weeks. This was during a hold up in the league,
so he missed no games. Fredrik’s decision to go for ice hockey made him focus on eating properly. He wanted to gain weight. He exercised and ate properly (a lot of carbohydrates and also protein powder) and gained five kilograms. Because of this he had a good health.

**Career and health satisfaction**
Fredrik was satisfied with his sports career so far, but he does not think it is anything special compared to other people. He was happy with the decisions he made during his career. Fredrik was very satisfied with his current health. He thought that health and athletic career went hand-in-hand. He mentioned an example with if someone have had a tough career and not been comfortable, it can affect your health negatively. Fredrik had experienced his career as successful and fun, and that made him get a good health.

**Career future**
He wanted to continue with ice hockey until thirty- thirty-five years of age. He still thought of sports as a lot of fun. If no injury puts a stop to his career, Fredrik wanted “to test his wings”. He and his team had a goal to continue to play in the same division and maybe even advance to the division above. Fredrik himself wanted to develop as much as possible and to step up one level, and maybe even wanted to play in the highest division if possible. To accomplish the goals Fredrik needed to increase the amount of practice even more, for example during the summer. He needed to do fourteen, maybe up to twenty, sessions a week. He also needed to stop drinking coke.

**The importance of health to the athletic career:**

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<td><strong>Career satisfaction level:</strong></td>
<td>8</td>
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<td><strong>Health satisfaction level:</strong></td>
<td>9</td>
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**Case 3: An international level golf player**

**Background information**
Andreas, a 25-year-old male golf player. He has been involved in competitive sports for about 17 years of time, and competing up to an international level. His main reason to participate in competitive sport is because it is the best thing he knows.

**The importance of health to the athletic career**
Andreas believed that his health is completely determinant to his athletic career, and it is in late years he feels that way. He wanted to be better and then he needed to take care of himself.

**Positive and negative influences of the athletic career on health**
Andreas’ positive experiences in his athletic career in regard of his health include being outside a lot, being in motion. The negative influence on health is sport specific injuries, such as attritional wear on shoulders and elbow.

**Athletic career development**
The number of stages reflecting Andreas career is six, and they include: “Football”; “Table tennis”; “Table tennis advancement”; “Stops playing table tennis”; “Golf advancement”; “Golf school”.
1. “Football” (8-10 years old)
Andreas had practice one to two times a week, and he perceived it all as being fun. There was also a lot of spontaneous exercising. He attended competitions once a week, and was quite successful with his team in football. Sport was much important to him, and there was not much else occupying him. His family and coach were supportive, as his friends were, that all played in the same team. Andreas did not have any pressure to achieve from any direction. During this period he did exercise a lot, but was quite overweight as a child, and perceive his health as moderate to good.

2. “Table tennis” (10-17 years old)
Andreas now played table tennis and had practice two times a week. He experienced it as a little bit tougher and a little bit more disciplined. He had a competition once a week, and did well. Sport was equally important to him. He still hung out with the same friends as in soccer. Andreas did not have any pressure to achieve from anyone. He perceived his health as better than in the previous stage, but did not do anything special do enhance his health.

3. “Table tennis advancement” (17-20 years old)
Andreas advanced in table tennis. He had practice twice a week but also played in his spare time with a friend. He could practice up to five times a week, and he still had competitions once a week. Andreas was almost always placed in the top. He even won a few, and was ranked top-ten in his region. Sport was still as important, and so were family and friends. He did not perceive pressure from anywhere but himself. He became more aware of health and the importance of eating healthy. But he did not do anything actively about planning his meals before practice. Andreas thinks he had an equally good health as in the previous stage. Andreas also started to play golf and he won his first golf-tournament.

4. “Stopped playing table tennis” (20-22 years old)
Table tennis became more serious and Andreas lost his motivation. He dropped out of table tennis and started to advance in golf. He played almost every day in summer, and entered about one competition every week. Andreas did well, and he decided to go for golf. Sport was important to him, and the people that meant the most to him were now family, friends, and his girlfriend. He felt a pressure to achieve from his golf club, because they paid a lot of fees for him going into competitions. He knew about health and what to do, but did not do much about it. Still, he perceived his health as good during the stage.

5. “Golf advancement” (22-24 years old)
A period with few changes. Andreas got “full category” on the Nordic Tour, and played very well. He perceived that the pressure on him increased, but only from himself. He felt that the years went by him and he wanted to achieve. Andreas was more active during the winter period, but this was unintentionally. His health was equal to the previous stage.

6. “Golf school” (24-25 years old)
Andreas started to study a sport specific golf-program at a university in Sweden. At the same time he started competing at an international level. His practice sessions increased during the whole year. He felt that the workload was much heavier on him. Andreas had competitions once a week but for a longer period of time during a year. He started to notice result according to the amount of exercise he has put down effort on. He felt that sport was the most important thing to him, and he was willing to sacrifice a lot to be successful. Andreas got much support from his school and his teachers, which were like coaches to him. He also felt a pressure to achieve from his school, but that was more in terms of them wanting him to do his
best, not to win competitions. He began to put more pressure on himself because he wanted to achieve since he started at the program. Andreas was injured by an inflammation in one of his shoulders. It did not affect his practice much, because he just had to rest that part of his body. He worked more actively with his health. He ate better, slept more, and trained physics more often. Andreas perceived his health as better than ever, but not as good as he wanted it to be. He wanted to optimize himself, to become as good as he could be.

**Career and health satisfaction**
Andreas was satisfied with his career so far. He never played for the national team, and he wishes he had started to go for golf a bit earlier. Andreas was almost completely satisfied with his current health. He was doing everything he could to improve his health, but it was still not where he wanted it to be. This concerned mostly strength and pace. Andreas thought that health and career went hand-in-hand, because whenever he evolved his career he got a better health, and whenever he enhanced his health his career went better.

**Career future**
He wanted to play golf as long as possible, and he wanted to win a competition in the Nordic League. He also wanted to get out on the European Tour, and optimize everything that has to do with golf: strength, pace, diet, techniques, and everything else. To accomplish these goals, Andreas felt a need to improve both physically and psychologically. He needed to feel well, and to be in a mentally good shape. He also wanted to be stronger and more flexible. Andreas could not mention more specific strategies to do this.

The importance of health to the athletic career: 10
Career satisfaction level: 9
Health satisfaction level: 8

**Case 4: A European travelling long distance runner**

**Background information**
Linda, a 23-year-old female long distance runner. She moved to Sweden when she was about three years old. She has been involved in competitive sports for about 18 years of time, and competing in the Swedish championship in terrain, and in marathons around Europe. Linda’s main reason to participate in competitive sports is because it motivates her to exercise. She is able to compete against herself, it is fun, and she gets happy after exercising.

The importance of health to the athletic career
Linda thought that health was very important to her athletic career, for the reason that you need to avoid injuries, eat properly, and sleep enough. It also depend on what you believe is health.

Positive and negative influences of the athletic career on health
Linda’s positive experience in her athletic career in regard of health includes feeling really good and getting outside to relax, because she will “climb the walls” if she do not get to exercise. She is able to enter her own mind, has time to reflect, and to get away from the surrounding world. It helps her with her studies, and she is able to relax better. Linda’s negative experience includes getting injured.
**Athletic career development**

The number of stages reflecting Linda’s career is four, and they include: “Gymnastics, horse riding, football”; “Alpine skiing”; “Stopped alpine skiing”; “Marathon”.

1. **“Mixed sports”** (5-13 years old)
   Linda was doing gymnastics, horse riding, and soccer, but not at the same time. She practiced one or two times a week, but it were not on a high level. She was not among the best athletes, though sports were not that important to her. Her friends were among the most important to her. Her parents were very positive to her exercising, especially her father, who helped her a lot. She was not aware of health but she was living quite healthy all in all. She was outside a lot, ate a varied diet, and ate candy mostly on weekends. She had pneumonia two or three times, but nothing relating to sports. At the end of this period she moved away from Sweden and from all of her friends. Sport started to be more important to her, because she did not have the social network of people anymore.

2. **“Alpine skiing”** (13-16 years old)
   Sport was the most important thing to her. Linda started alpine skiing every day, and it took up all of her spare time. It was really intense, and she was exhausted when she got home after one day of skiing. At the same time it was a whole lot of fun to her. She felt like she could not miss any practices. She could do up to five or seven weekends with competitions to collect points. Her coaches were important, but most of all her dad was. As a former alpine skier, he was with her on every practice, always being supportive. She felt pressure to achieve from nowhere but herself. Linda had a good health during this stage. She did not think of it or did anything special to get a good health.

3. **“Stopped alpine skiing”** (16-19 years old)
   Linda suffered from a cruciate ligament, but did not know it was that at first. She wanted to continue exercising regularly. She finally realised the seriousness of the injury and she later dropped alpine skiing. This triggered her running, though she could not run to start with. She had to walk on a treadmill, which was really frustrating for her. She later started to seriously practice long distance running. Linda exercised at least six times a week with four strength sessions as well. The competitive season was from May to September. She entered several long distance races with success. She did not have a lot of opponents in her age class, so she won several races. Sport was still really important to her, and she did not want to miss practice. During high school she always had clothes with her, so that she was ready to exercise as often as she could. The medical staff that helped her to recover from the injury was important to her, and her family as well.

Linda and her family moved back to Sweden at the end of this stage when she was seventeen. Then she was reunited with old friends again. Her friends became important, but sport was still even more important to her. When she was out running, she put pressure on herself. She did not want to stop running. Linda did not have pressure from anyone else. Linda started to think more about her health, especially about what she ate. She controlled her diet very much, and it was not varied. She ate what she believed was healthy, which was not a lot. Compared to how much she exercised, she ate far too little. Linda knew she “took it over the top”. She was also a non-drinker, which was positive to her.

4. **“Marathon”** (19-23 years old)
   Linda trained less strength but ran more mileage a week. She ran three marathons. It took months to prepare, but right around these she had to decrease her practice. Every year she also
ran about four ten-kilometres races during summer. Sport was equally important as before, but she was also able to skip or move practice if she wanted to hang out with her friends. In 2005 she met her partner, who became really important to her. She was able to spend time with him instead of exercising. He thought her exercising was positive, and he was proud of her. He went in first hand, but she always tried to make an exercise schedule. Linda’s parents were still important to her as well. She was now much better when it came to eating. Her overall health was improved. She was very seldom ill, though she could get a cold or feel very tired. She did not perceive this as negative. She had some minor problems with her foot joints, and her other knee. She got insertions for her shoes to cure this, but at the same time it did not affect her very much.

**Career and health satisfaction**

Linda felt pretty satisfied when she thought back on her career. Especially proud she was when she ran her first marathon. Linda was also satisfied with her current health. She believed that a sports career and health satisfaction relationship exists to a certain part. Her own sports career improvement has been positive, and therefore she thinks that her health was good as well. If a person has a decrease in achievement, it could also result in a depression and making health worse.

**Career future**

She wanted to continue with running as long as possible. She wanted to run a lot more marathons, and she could not see an end to it. She did not focus that much on improving her times, but future goals include going below 3.30h on a marathon. She also wanted to go below forty minutes on ten kilometres, but realised that these both goals were hard to combine. To reach her goals she was going to keep on training. She believed she did not need to change much. She should have put in intervals if she wanted to go below forty on ten kilometres. She needed something extra mentally, as well as a lot of willpower. Though, she was having a hard time motivating herself to do that.

- *The importance of health to the athletic career:* 9.5
- *Career satisfaction level:* 7
- *Health satisfaction level:* 8.5

**Cases summary**

**Background information**

The cases involved one female and three males, with a mean age of 24 ± 2.3 years old. Two were team sport athletes and two individual sport athletes. Three of the athletes were competing at an international level, and one at a national level. All four athletes started being involved in competitive sports at a very early stage in their lives. The involvement reached from about a maximum of 20 to a minimum of 17 years. They all participated in competitive sports because of personal enjoyment (i.e. it is fun, and the best of things). The team athletes mentioned the group of people they are in as a reason. One individual athlete and one team athlete mentioned competing as a reason. One athlete mentioned his own health as a goal with participating in competitive sports.
The importance of health to the athletic career

First, the athletes were asked to value how much important health is to their athletic career on a scale from 1 to 10, with 10 being very important and 1, not at all important. The mean score was of 9.88 ± 0.25, with a maximum of 10 and a minimum of 9.5. They all gave an extremely high score, showing that health is very important to their athletic career. The athletes explained this with the importance of taking care of oneself, and some of the factors they included were: eating, sleeping, avoiding injuries, and the importance of the social life.

Second, Table 1 (see Appendix 4) presents raw data units, high and low order themes for the category “the importance of health to the athletic career”. In total 14 raw data units were found. The raw data units were classified into four high order themes. The first one is about the importance of “having a fit body”, and covers a total of 43% of the raw data units. Here the athletes mentioned “to nurture/care about your body”, and “to avoid injuries”. The second high order theme states that health is important for “performance improvement”, covers a total of 29% of the raw data units, and described as “to improve performance” and that “practice brings good health and improved performance”. The third high order theme “overall important” covers a total of 21%, and explains that “everything about health is important”. The fourth high order theme “social-life aspects” covers a total of 7%. The athletes spoke about the importance of “having a good social life”. One individual athlete and one team athlete were more specific, and talked about food and sleep. The other two thought in a more general sense of this importance of health. The floorball player mentioned a balance in life, such as at home or at work. What they all agreed on was the importance of health as mentioned above.

The positive influences of the athletic career on health

The athletes were asked to state the positive influences of their athletic career on their health. Table 2 (see Appendix 4) presents raw data units, high and low order themes for the category “The positive influences of the athletic career on health”. In total 24 raw data units were found. The raw data units were classified into five high order themes. The first one, “physical nurturing” covers a total of 42% of the raw data units. Here the athletes spoke about “exercising regularly throughout life”, “body nurturing”, “fit body”, and “physical well-being”. The second one, “psychological nurturing” covers a total of 42% of the raw data units, and the athletes mentioned things concerning “feeling well” and “concentration and thinking”. The third high order theme “social encounters” covers a total of 8% of the raw data units, the fourth one, “experience nature” cover a total of 4% of the raw data units, and the fifth one, “overall positive” covers a total of 4% of the raw data units. All four athletes mentioned physical or psychological factors. One of the team athletes mentioned a positive social aspect, which was meeting a lot of other people and teammates.

The negative influences of the athletic career on health

The athletes were asked to state the negative influences of their athletic career on their health. Table 3 (see Appendix 4) presents raw data, high and low order themes for the category “The negative influences of the athletic career on health”. In total 8 raw data units were found. The raw data units were classified into three high order themes. The first one is about “physical injuries” and covers a total of 66% of the raw data units. The athletes spoke about “acute injuries” and “injuries due to overtraining and/or attritional wear”. The second one, “social-life sacrifices” covers a total of 17% of the raw data units, and is about having to “sacrifice time with important others”. The third one, “epidemics” covers a total of 17% of the raw data units, and is about “spreading diseases” among teammates. What they all agreed on was that physical injuries were a negative factors. The team athletes mentioned social matters, for example spreading diseases and sacrifice time with important others, as negative.
**Athletic career development**

One individual athlete and one team athlete described their athletic careers as having six stages. The other two athletes divided their careers into only four stages. The most common thing was to name their stages with the current sport they were practicing. The ice hockey player, though, did name his stages by a more subjective experience (i.e. “pleasure” or “learning”). A summarization of the stages will follow in the discussion.

**Career highlights**

The athletes were asked to mark out highlights of their athletic career. The most common thing was to mark out happenings connected to wins or when they played well.

**Career and health satisfaction**

First, the athletes were asked how much satisfied they are with their athletic career on a scale from 1 to 10, with 10 being very satisfied and 1, not at all satisfied. The mean score was of 8 ± 0.82, with a maximum of 9 and a minimum of 7. All athletes feel satisfied with their career. Two of them, one individual and one team athlete, also clearly stated what they have done to be very satisfied. This included putting down more effort earlier in their career. The hockey player compared his career with other people, and concluded that his career was ordinary.

Second, the athletes were asked how much they are satisfied with their current health on a scale from 1 to 10, with 10 being very satisfied and 1, not at all satisfied. The mean score was of 8.88 ± 0.85, with a maximum of 10 and a minimum of 8. The floorball player rated his health as 10, and had nothing to complain about. The golf player wanted his health to be better, and did what he could to improve it. The long distance runner and the ice hockey player could not mention anything special to why they were not completely satisfied with their health.

Third, the athletes were asked to wonder about whether they could see a relationship between the career and health satisfaction level. They all agreed on that they somehow are connected. One individual athlete and one team athlete expressed that this relationship went hand-in-hand. The golf player thought that whenever one of them was increased to a more positive state, the other one followed to be more positive. The long distance runner and the ice hockey player mentioned that a bad career development could result in bad health or even depression. The floorball player stated that:

> “if you have a good career you have a good health”

**Career future**

The individual athletes could not see an end to their involvement in competitive sports. The team athletes could see an end to their career on the level of competition they were on for the moment. The floorball player only had about half a year left. The ice hockey player would continue until he is thirty- to thirty-five years old. They all had specific goals to achieve in the future. The golf player and the floorball player wanted to win specific tournaments, to win the first price. The long distance runner mentioned specific hours and minutes she wanted to run below on specific long distances. She also was the one who did not have as much motivation as she would like to have to accomplish her goals. The ice hockey player was in a state of mind where he only wanted to develop as much as possible, and to test his wings. The golf player and the ice hockey player were the ones who expressed a new beginning, and had the most of things yet to achieve.
Health related strategies in the future

The athletes were asked to state their future health strategies related to their future goals. Table 4 (see Appendix 4) presents raw data, high and low order themes for the category “Health related strategies in the future”. In total 16 raw data units were found. The raw data units were classified into three high order themes. The first one is about “physical improvement”, and covers a total of 50% of the raw data units, and is about “working on physical aspects” and “controlling diet”. The second one, “psychological improvement” covers a total of 25% of the raw data units. The athletes stated that they wanted “working on psychological aspects” and “increase well-being”. The third one, “no change” covers a total of 19% of the raw data units, the fourth one, “dependent on external matters” covers a total of 6% of the raw data units. The athletes stated that the success of fulfilling their future goals was “dependent on other persons/things”. The long distance runner and the floorball player stated that they knew quite well what they needed to do to achieve their future goals. They would keep on practising and would not change much. The long distance runner would perhaps change something regarding her practice sessions. The ice hockey player and the golf player realised that they needed to change much regarding both physical and mental factors. It was also these two athletes who mentioned an improvement regarding diet. The floorball player expressed the following in regard of health strategies and career future:

“. . . those who didn’t have a good health, didn’t get so far in their career”

Discussion

The main purpose of this study was to examine the athletic career development in relation to health issues. The athletic development and health are seen from a holistic lifespan perspective. The discussion will follow the objectives of the study, which were to examine: (a) how athletes perceive a relationship between their athletic career and health; (b) how health issues appear across athletic career stages; (c) how athletes perceive health related strategies in regard of the future career goals.

A perceived relationship between athletic career and health

The athletes valued their health as very important to their athletic career. The athletes also expressed a broad diversity when mentioning health and the reason to why it was important. The athletes’ reflections of health could in many ways be linked to WHO’s (2006) definition of health. The only thing they specifically did not talk about were the psychological aspects of well-being. The differences between the athletes comply with what Ewles and Simnett (2003) mentions about health definitions. Every individual has his or her own definition about what health is.

The athletes were asked to state positive and negative influences of the athletic career on health. The positive influences were in majority, and involved an equal amount of physical and psychological aspects (i.e., physical nurturing and psychological nurturing). The athletes also concluded that the athletic career was positive in general for health. This also highlights the importance of health to the athletic career. The less mentioned negative influences were foremost about injuries. Stress, as a negative factor, was not brought up at all by the athletes. Hanton and Fletcher (2005) addressed important major organisational stressors. But the athletes did not in particular mention stress at any time during the interview. The athletes clearly perceived health as a benefit of participation in sport because they mentioned more positive influences than negative. This is one of the factors, according to the perceived health
and sport/exercise participation model (Stambulova et al., 2006), which would lead to healthy sport participation. Another factor is the career/sport participation satisfaction.

The athletes evaluated their current career/sport satisfaction as high. They also evaluated their health satisfaction as high. The athletes also agreed that there was a connection between the health- and career-satisfaction. But they had a hard time explaining what this relationship was really like. Maybe athletes with low perceived health, and a low health satisfaction also values their sport participation satisfaction as low. Then, perceived health could be a strong predictor of sport participation satisfaction. The model by Stambulova et al. (2006) also predicts that high perceived health leads to satisfaction with sport/exercise participation, and continuation. The relationship that was found between athletic career- and health-satisfaction is interesting. Even though the athletes’ experiences about health are very different from each other, they still see this relationship and its importance. The athletes good and bad times during the career made them realize this important relationship. What if the informants only would have been successful athletes with a good health throughout their career, or only unsuccessful athletes with a bad health throughout their career? Would they have very different opinions about the importance of health to the career then? The present study concludes that athletes see health as important.

Coleen’s (2003) important factor balance in life was only expressed by one athlete. The floorball player expressed this in relation to his feeling in recent days. What the athlete mentioned was also a social aspect, where he focused less on sport and was able to enjoy other aspects in life. That could be interpreted as social matters or role functioning, as in the circle of life. Another person who also seemed to have found a good balance was the long distance runner. But she did not speak of it as a balance, though more as she had found a way to plan her life.

Vamos and Vamos (2008) mentioned that there is a difference between men and women in health across life stages, which also produces different experiences. This was not discovered by the present study, nor was it its purpose. They also mentioned that health differed between individuals. This was obvious when looking closer at the athletes in the present study. Not one of the athletes did have a similar health or career progression as another athlete.

Health is perceived as very important to athletes. The athletic career is also perceived to include a majority of positive effects on health. Athletes at the same time perceive a clear relationship between career- and health-satisfaction. There is clearly an important relationship between athletic career and health.

**Athletes’ career stages and health issues**

The athletes were asked to divide their career into stages, and speak of them according to eight specific topics (i.e., social support, pressure etc.). The analyses from the results show that there is clearly a structure according to Wylleman and Lavallee’s (2004) developmental model. In this section, stages will be discussed according to the theoretical frameworks. But first a summarization of the stages will be presented.

**Initiation stage** (about 6-14 years old)

The athletes had approximately three practices a week. They all had competitions once or twice a week during the competitive season. This was all about having fun, meeting friends, and there was not much seriousness to it at all. Sports were very important to three of the participants. The social support from parents was important to them, along with friends. The
golf player also expressed an importance of the coach to him. No pressure to achieve was found out of these early years from all four athletes. Three of the participants perceived their health as good, except from the golf player who mentioned overweight in childhood. At these early years none of them were aware of health as an issue, and they did not work actively with health.

**Developmental stage – 1** (about 14-18 years old)
All four athletes experienced an increase in the numbers of practice and competitions. Everything became a bit more serious, and sports were still as important, if not even more. Sports were still a whole lot of fun to them. The long distance runner moved away from Sweden and her friends, which made sport very important to her. Parents became very important to her as well, especially her dad who coached her. The golf player experienced no difference in the support from others, as mentioned by the ice hockey player as well. The floorball player’s parents became less important, and his peers became even more important. Both of the team players felt a slight increase in pressure to achieve. This pressure was expressed to them by their coaches, and also for qualification to important national level teams. The floorball player even made it to the national team. The individual athletes did not have any pressure put on them, but the long distance runner mentioned a pressure from herself. All four athletes had a good health, but they did not do anything themselves to make it better. The ice hockey players’ team club hired a specialist on food and health. This might be due to the fact that he played in an elite club, and they could afford to do this.

**Developmental stage – 2** (about 18-21 years old)
From now on the athletes’ careers took different directions. The ice hockey player and the golf player were not prepared to sacrifice as much as was necessary to advance towards the top. They changed performance level and/or sport. The long distance runner’s severe injury made her in the end change sport. The floorball player was continually successful, and transferred to a better team. Two athletes changed sport, and two did change performance level. Sport was still an important thing to them, but occupied a different amount of time in their lives. Other things got important, like graduation, getting a job, and spending time with friends. The long distance runner moved back to Sweden, which made her reunite with old friends that now became more important. Parents were important to them all, but it was peers that were the most present. No one did have any pressure that made him or her think about it. Three athletes, except from the golf player, experienced a change in health status to the worse. The long distance runner controlled her diet too much, and was at the same time injured. The floorball player and the ice hockey player did not think of health as much, which ultimately got them a worse health. These were very turbulent years in which they decided what direction the career would take. Do they advance in the chosen sport, or does something happen that makes them to change direction? In the present study, two lost their motivation, one got severely injured, and one advanced in his sport.

**Mastery stage** (about 21-28 years old)
For three of the athletes, the sport involvement took a final change. The ice hockey player decided to advance. He started to play in a team placed in division three, and in the end became one of the most important players. At one time he was severely injured and had trouble getting back. Much like what the female athlete experienced. The golf player decided he wanted to advance in golf. The long distance runner advanced in her newly chosen sport too. The floorball player continued to advance in the same sport. Both team players experienced an increased pressure to achieve from others. They also had to focus on other things in life, like studying and working. The golf player started to put a lot of pressure on
himself, and his school wanted him to do his best. The workload increased on all four of them, but they felt that they could control it. The most important support to the long distance runner and the floorball player came from their partners. The ice hockey player and the golf player felt support from important others. The floorball player is a bit older than the others, and has experienced a level that the others have not. That is, he went professional and moved to a different country. He had a lot of things to focus on, was injured, and he had problems with achieving. Furthermore, he had a lot of pressure from his team and club. The golf player and ice hockey player are the once who still felt a great eager to advance towards the top.

Athletes’ experiences of health status were very different during the mastery stage. The ice hockey player and the golf player experienced a better health because they worked more actively with health strategies (e.g. sleep better, eat better, and exercise better). The floorball player thought he knew what he had to know about health. Though, he did have some struggle abroad, but later found a good balance in life. In late years he focused much on his family. The long distance runner was much like the floorball player. Even though she was young, she had come a long way in life and was not eager to advance. She also found a good balance in her social life, and did get a better overall health.

The conclusion of later years is that health improved in all of the athletes as they had to gain more knowledge about it, and they worked more actively with it. Everything was more stable in life, as they made their decisions on what to do. The floorball player related the feeling of joy to the sport to when he was a child, and it is all about having fun.

Results and the developmental model on transitions faced by athletes

The results revealed that the athletes structured their career according to the athletic level in the developmental model of transitions faced by athletes (Wyllemann & Lavallee, 2004). The analysis of the athletes’ statements uncovered a structure similar to the psychological, psychosocial, and academic/vocational levels. This gives support to the model.

The athletes were involved in sports since very early in their lives. They competed in one or more sport activities, and it was all about having fun. The ice hockey player named it his “learning stage”. This can be referred to the initial stage in the developmental model on transitions faced by athletes. They were children in primary school, and parents, siblings, and peers were most important to them. This is actually what the athletes mentioned, as can be seen above in the initiation stage.

Proceeding with the athletes’ cases they later enter what can be seen as the developmental stage. But this has to be divided into two parts since important things happened more than once. At first they had similar development (see Developmental stage 1), but at about eighteen to twenty years of age their careers took very different directions at the developmental stage number two. But still there is a similarity to the model of transitions faced by athletes. At the psychosocial level the parents were still very important, if not most influential on the athletes. The academic/vocational level is also visible.

The athletes’ last stage is very interesting. It can be interpreted as the mastery stage. Even though this stage was very individual for the athletes, we can see some similarities in the results (see Mastery stage), especially at the psychosocial level where partners were very important. The academic/vocational level is also very visible.
There is an obvious difference considering the number of stages in an athletes’ career between the developmental model on transition faced by athletes and the present study. The developmental model on transitions faced by athletes has got three within career stages, at which the athlete are active. The athletes in the present study identified four to six within stages so far in their active career. There is perhaps a need for more stages considering career development. Despite this issue, the present study confirms that it is important to have a holistic view when looking at the athletic career development. Furthermore, the career development inflicts different challenges to an athlete.

Results and the lifespan model of developmental challenge
The lifespan model of developmental challenge by Hendry and Kloep (2002) states that development involves being exposed to, and dealing with large and small challenges from day to day, which will result in learning from it. From the results of this study it was evident that the athletes experienced large and small challenges during the stages.

During the initiation stage the athletes did not have any particular difficulties with facing new challenges. The successfully met challenges did add to their resource-pool. What is more interesting to discuss is what happened during the athletes’ developmental stage. Two athletes that were not prepared to sacrifice what it took to advance were the ice hockey player and the golf player. The ice hockey player was not prepared for the intense summer practice, and the table tennis player lost his motivation. The task of advancing and getting into more intense practice was perceived as a risk. The athletes’ resource-“pool” was too “weak” in relation to the task demands. A lack of resources and a feeling of insecurity were also perceived. The unsuccessful coping with the advancement made them decide to change direction of what they were doing. However, their lives did not become chaotic. They managed to avoid a catastrophe and only changed direction to something they could cope with. There were also a lot going on outside of sports, for example graduation and getting a job. This might have added to the task demands as well. The floorball player was the one who met his challenge of a lot of exercising and pressure successfully. This made him advance to an elite competitive level. He probably had the proper social resources, skills in various domains, self-efficacy, and structural resources. His individual resource-“pool” matched the task demands, and a “goodness-of-fit” situation appeared for him to advance. This outcome might have also added more into his “pool” when faced with future challenges. He was aware of health as an issue and perceived it as a bit worse than before, but did not use any specific health strategies. On the other hand the floorball player experienced some problems in France that did not make that specific period in his career successful. The task demands became too big for him and his own resources were not enough.

The lifespan model of developmental challenge could be discussed according to several happenings during the athletes’ careers. But these are the major issues that have been brought up to support the theory. Results also show that athletes might experience challenges, and cope successfully or not, at any stage of the career. These challenges can be discussed from a health as a resource perspective.

Results and the circle of health
Coleen’s (2003) circle of health can explain why the athletes did have failures and successes from a health perspective. It can also show how the athletic career affected the athletes’ health. An obvious example can be seen in the turbulent developmental stage. Three athletes experienced changes in health at some time during the period, and changes in their lives. This happened when they were about to advance in their careers. A need of counselling of some
sort concerning health could have been useful. That is, someone that would have been given them additional support. Perhaps they would have made it through the challenge if they were informed and actively worked with their health, and did structure their lives.

Another obvious problem is that there is a lack of health strategies the individuals use in their early ages. Participants were not aware of health as an issue, though, it did not seem to affect them negatively during the initial stage. It can be related to athletes’ upcoming problems in later stages. They were not prepared when the athletic career demands increased and their health awareness was low. If an athlete was successful we can see that he or she had a balance in life. The opposite is called for when an athlete failed to advance. The balance in life ought to be something very important in athletes’ career if success is wanted, which was also mentioned by one of the athletes. The circle of health model should therefore be taken into consideration when focusing on athletes balance in life. This balance in life is connected to healthy sport participation. There also exists unhealthy sport participation. The results reveal that athletes’ health tendencies differ throughout the career development.

Results and the perceived health and sport/exercise participation model
The model postulates that there are two health related tendencies in sport/exercise participation, which together develop a continuum (Stambulova et al., 2006). Looking at the summarization of the three cases we can clearly see that the athletes had different health tendencies during the athletic career (sport/exercise participation). Individually they also shifted throughout the career according to the continuum. One of the most obvious examples to this is the long distance runner. Her health shifted quite dramatically at some points. Up to her cruciate ligament injury she had a fairly good health. After healing from the injury she became obsessive in her way to get a good health. At some later point the health became good and to what it is at present time. As can be seen from the present results the health related tendencies can change throughout the athletic career/sport participation. Several things influence athletes’ health (e.g., micro- and macro-influences, perceived health, and other related factors, etc).

Another example refers to the developmental stage in the golf player’s and the ice hockey player’s careers. They did not mention anything about health strategies themselves. They perceived their health as good during this stage, but they did not have any health enhancing strategies. The athletes might therefore have seen health as a perceived cost of sport participation in the end. They clearly were not satisfied with their sport participation. But, an important issue here is that they did not drop out of sports. They only changed the degree to which they were involved in sports, i.e. they continued but with the reversal of the dominant tendency. The athletes changed from being involved in a very challenging situation and unhealthy behaviour, to a lower competitive level of sports and more healthy behaviour.

The model predicts that dominance of the healthy tendency most probably leads to continuation of sport participation. A dominance of unhealthy tendencies most probably leads to dropout from sports. The athletes in the present study did not drop out even though they sometimes had a dominance of unhealthy tendencies. They continued with their sport participation, but decreased their degree and level of sport participation because they drained health related resources. This is also what the model predicts, that the dominant tendencies can be reversed. Health is obviously an important issue in order to remain at higher levels of competition. The athletes were involved in high competitive sports and therefore might have been less likely to drop out of sport compared to athletes in amateur sports or recreational exercising. Athletes with a dominance of unhealthy tendencies are most likely to decrease
their level of sport participation in order to enhance their health. The results in the present study show a clear and important relationship between perceived health and sport participation. As mentioned earlier, the athletes also did perceive this relationship as essential.

To sum up the discussion regarding the second objective, the career development and its holistic view impose challenges on athletes. The effect on the athletes’ health depends on the nature of the challenge. This either drains or enhances health. The athletes’ health tendency influences their sport participation. An athlete with unhealthy tendencies at high competitive level would most likely decrease the level of competition to enhance health. Therefore, there seems to be a need for increased health enhancing strategies in order to remain at the present competitive level.

Health related strategies in regard of the future career goals
The present paper earlier concluded that the athletes were involved in healthy sport/exercise participation, and that this should have lead to a continuation with a healthy participation. When the athletes were asked about their career future they were all going to continue their sport participation.

The athletes’ health related strategies to their future career goals included a big number of physical aspects. They also stated some psychological aspects (e.g., increase well-being). To a certain part the athletes mentioned that they wanted no change. The athletes stated that they did know what to do in regard of future career goals. But it was only the long distance runner who gave a specific answer on how to do it. Therefore, a lack of structured health enhancing strategies could be noticed. When the athletes mentioned health related strategies, matters concerning activity and performance were often present. Factors concerning renewal and recovery were in minority. The question is whether athletes in general mostly focus on energy draining factors (i.e., increase strength, increase practice sessions). According to Coleen’s (2003) circle of health, factors concerning “taking in” are equally important. Maybe this highlights the problem with overtraining and burnout, and that people do not really focus on the part about the need to recover in order to build up new energy. According to the athletes’ statements they will continue with competitive sports for a long time on high or low competitive level. According to them, at least exercising will always be a part of their lives. Looking at the perceived health and sport/exercise participation model (Stambulova et al., 2006), and the continuum, the athletes were most likely on a healthy sport participation path for the future career.

The conclusion of the discussion is that there are important health aspects in an athlete’s career. There is a lack of health awareness at early stages. In later stages there is an obvious shortage of health strategies even though athletes think of health as an issue. This could also be noticed in regard of future career goals. It seemed to be that it was not until the athletes advanced or got a worse health that they started to think of health. All four athletes agreed on the fact that health is very important to the athletic career. There is also a clearly perceived connection between health- and career-satisfaction. The theoretical frameworks have been acknowledged in the discussion, and the results of the present study have given extra support to the theories.

Methodological reflections
This study adopted a post-positivist perspective to examine the athletic career in relation to health issues. An interview guide was constructed based upon, and were supposed to reflect, the theoretical frameworks. A lack of time made no pilot study possible to conduct, which
would have been preferable. But the interview guide had some advantages. One advantage was the in-depth interviews conducted. This made it possible to receive plenty of information from the participants. The detailed interviews gave enough information to see apparent similarities and differences concerning the participants’ athletic career development in relation to health issues. It was also enough to link the results to the theoretical frameworks. The interviews were semi-structured, which allowed the interviewer to use a combination of prepared questions and questions derived from participants’ answers. The interview guide was constructed with questions that were retrospective, actual, and prospective to the informants. The questions were asked in that specific order to follow a specific time-line.

Another advantage was the use of case studies. This allowed the results to provide with more detailed information from the participants.

An advantage of the study is also the after interview debriefing forms that provide useful information. The questions were properly understood, though section number three had to be explained in detail more often. A feeling of repetition was also perceived during the interview of section number three, because of the eight topics that were discussed in relation to each stage of the athletes’ careers.

The ethical issues has been carefully considered and used in the present study. The informants were thoroughly informed about the ethical issues (i.e., their rights) before the interviews. This could help to reduce informant bias. The small amount of participants in this study made it difficult to generalize the results. But the in-depth interviews compensated for this, and plenty of information was received and analysed. Another concern is about the researcher’s bias, and whether or not the qualitative data has been treated objectively. Triangulation was unfortunately not possible to make. A concern is also the informant’s bias. Participants were told about the topic ahead of the interview, and this could affect their answer.

Applications
The fact that athletes perceive health as very important should be an indication for coaches to implement it more into practice. Health has been revealed to be foremost a critical issue early in athletes’ careers. It is not until athletes are forced to realize that they need to think of health as they start to actively work with it. Sometimes this could be too late. To educate parents and coaches involved in young athletes is an important issue. Giving young athletes a good knowledge about health strategies could make them better prepared for future challenges.

Health should of course be an important issue across the whole athletic career. As the results show, athletes tend to decrease the level of competition when health is drained. Therefore, athletes should be consulted on health related strategies, and sport psychology consultants should be ready to work on health issues.

Future research
Future research should continue to examine how athletic career and health affects each other, using the holistic view of an athlete. More specifically research should focus on health issues linked with specific stages in the athletic career, so that athletes can receive adequate assistance.

The importance of health in adolescence years that has been discovered by the present study makes it necessary to do more research especially at early stages. Studies in young athletes’ competitive sport participation are something that is required, to create effective interventions to keep athletes in healthy sport participation. Health intervention research should also be
done considering other career stages to adopt the holistic view explained in the present study. All in all, as Stambulova (in press) states, it is important to find factors influencing successful, healthy, and long lasting athletic careers and their contribution to athletes’ further careers in life.

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References


Content of appendices

Appendix 1: Interview Guide: Career development in relation to health issues.

Appendix 2: After interview debriefing summary.

Appendix 3: Individual profile example.

Appendix 4: Table 1. The importance of health to the athletic career.

Table 2. The positive influence of athletic career on health.

Table 3. The negative influence of athletic career on health.

Table 4. Health related strategies in the future.
Career Development in Relation to Health Issues
Interview Guide

This interview is a part of the study about athletes’ career development in relation to health. Participation in the interview is voluntary and you have the right to drop out at any time. Please answer the questions as full and sincere as possible. Confidentiality is guaranteed by an anonymous procedure of treating your answers.

Part 1. Background information

1.1 Your age:

1.2 Gender:

1.3 For how many years have you been involved in competitive sports?

1.4 What’s your major sport?

1.5 What’s the highest level of competition you have participated in (local, national or international)?

Part 2. Sport and health

2.1 Why do you participate in competitive sports?

2.2 How important is health to your athletic career? Evaluate this using a 10-points scale (0= not at all important; 10= very important): circle the score corresponding to your opinion. Motivate your answer, please!

    1  2  3  4  5  6  7  8  9  10

2.3 In what ways does your athletic career influence your health: a) positively; b) negatively?

Part 3. Career development

Please, outline your whole career, up to this point, and mark out the stages of the career. Name the stages and set an approximate age. Also, spot and mark specific career happenings important to you. Topics to discuss, related to each stage:

3.1 Practice. (How often; workload?)

3.2 Competition. (How often; outcome?)

3.3 Sport. (How important to you?)

3.4 Social support. (Family; coach; friends?)

3.5 Pressure. (What; from who?)
3.6 Injury/Overtraining. (Tell about experiences)

3.7 Strategies. (What; how; learning new; to enhance health; to avoid injury)

3.8 Perception of health. (Summarize)

Part 4. Career and health satisfaction

4.1 How much are you satisfied with your sports career so far? Evaluate this using a 10-points scale (0= not at all satisfied; 10= very satisfied): circle the score corresponding to your opinion. Motivate your answer, please!

1 2 3 4 5 6 7 8 9 10

4.2 How much are you satisfied with your current health? Evaluate this using a 10-points scale (0= not at all satisfied; 10= very satisfied): circle the score corresponding to your opinion. Motivate your answer, please!

1 2 3 4 5 6 7 8 9 10

Part 5. Career future

5.1 For how long are you planning to stay in sports?

5.2 What do you plan to achieve in your athletic career in the future?

5.3 Do you feel a need to change your health strategies, considering your future goals?

Thank you for your participation!
Appendix 2

Summary: After Interview Debriefing

Place
The interviews were adapted to the informants needs when considering place and time. Three interviews were conducted in a study room at a university library. One interview was conducted at the informant’s coffee room at the workplace. The interviews conducted at the university library were quite optimal. All three informants were students and had businesses going there besides the interview. It was in a closed study room so that no disturbing noises could be heard. There were windows letting in sunlight, and good ventilation. The interview conducted in a coffee room was not optimal. This led to some disturbing noises from other people.

Time
The interviews were conducted at 10.00 a.m., 11.00 a.m., 13.00 p.m. and 13.10 p.m. The informants got to approve the times, and matched what was best for them. The interviews were conducted in the beginning or in the middle of the day, and all of the informants were alert. One of the informants was rushing to the interview after a lecture, and seemed a bit stressed. The interview at 10.00 a.m. might have been too early.

Interview length
The interviews were 33.55, 38.04, 45, and 67.26 minutes long. The optimal would have been to have interviews longer than one hour. But the information received was plentiful, and enough to get an interesting result.

Questions
The informants had been told about the topic of the interview ahead of the interview. They seemed prepared when the interviews started. All four informants were interested in the topic, and could mention a lot about it.

Reactions to the questions
Most of the questions responded in quick answers, and the informants always did know what to say. Sometimes they drifted away from the topic. Some were more interested than others. The most information was received from those who were the most interested.

Difficulties understanding
Most of the questions were correctly understood. The third section of the interview guide had to be explained in detail a couple of times because of questions from the informants. The topics of the third section were discussed throughout the career stages and the athletes perceived this as hearing the same question over and over again, which was not good for the interview process.

Interviewer influencing the informants
As the interviewer I did not perceive that I influenced the informants in a particular way. I might have led them to mention a specific thing or discuss something in detail. I tried to keep them talking and to not drift away from the topic.
Individual profile

*Athlete #1*

**Age:** 28  
**Gender:** Male  
**Years in competitive sport:** 20 years  
**Sport:** Floorball  
**Level of competition:** National team, and pro-player in foreign country

**Reasons for participating in competitive sport:**  
You think it is damn fun, both then and now  
Fun within the team  
Fun with competitions

**The importance of health to the athletic career:** 10  
Completely determinant  
Does it not work at home or does it not work at the job . . . it affects sporting

**The positive influence of athletic career on health:**  
Very fit  
Exercise as a routine  
When you terminate (career) you will somehow keep exercising regularly  
Practise almost each and every evening . . . of course it gives a good health  
A lot of teammates  
Much people around  
Sleep well  
A routine that you eat well and you cannot party  
Overall I think it is very positive for your health

**The negative influence of athletic career on health:**  
Sometimes you should have been resting when you do not, either when you have some minor injury or when you feel a bit ill . . . you feel like you have to play  
You get to sacrifice . . . to meet them, the family at home, perhaps less than those who do not do sports and put a lot of time on it

**Stages reflecting the athletic career:** 6

**Stage 1. Youth/Junior teams (approximately 8-14 years old):**

**Career highlights during stage:**  
2 Gold-medals Swedish youth championship

**Practise during stage:**  
Three times a week maybe  
It was no problem, how much you ever did practise  
It was just fun
Competitions during stage:
Two times a week

Sport importance during stage:
All of the friends I was hanging out with were also playing
That was the thing you were doing
If there were no practise you had to go out on the street, and you played there instead
It was all about that

Social support during stage:
Friends of course
Also parents that picked you up a lot and attended every game
The support around you were also damn important

Pressure to achieve during stage:
No, I cannot remember that
Just fun

Injury/Overtraining experience:
No

Health strategies during stage:
I cannot remember that I had
It just came, sort of
You probably could not have bad health then, in your mind

Perceived total health during stage:
It was well

Stage 2. Senior team (approximately 14-18 years old):

Practise during stage:
Six to seven times a week
Could do three sessions in a row with youth-, junior-, and first-team.
Not tiring

Competitions during stage:
Some weekends you played four games
Sometimes if there were tournaments and stuff it could be even more

Sport importance during stage:
Still the same

Social support during stage:
Parents might have less importance
Friends became an important part, or perhaps got more room

Pressure during stage:
You could feel that it was starting to come
With the first team you had to achieve to attend the next game
U21 national team . . . then you were expected to achieve when you got home

*Injury/Overtraining experience:*
No

*Health strategies during stage:*
I do not think that I was thinking so much of it

*Perceived total health during stage:*
Very good

**Stage 3. Gothenburg (approximately 18-20 years old):**

*Practise during stage:*
Only with the first team
Four times a week
Normally one and a half hour

*Competitions during stage:*
One game a week

*Sport importance during stage:*
In some parts more, but in some, less

*Social support during stage:*
I was hanging out less with the team
Mostly all other friends were still playing in the old team
Those friends were still important, but now they were not a part of the same team
The new team, those who played there also became important
Now the parents were not as committed
They were always watching, and were there, but they had nothing to do with the team
They did not drive to games
Now they were just audience

*Pressure during stage:*
I had quite high pressure on myself
I thought, I had to achieve
I was quite young . . . and I do not think they had such high pressure on me

*Injury/Overtraining experience:*
No

*Health strategies during stage:*
Maybe you started to, become more aware of why you sometimes played well and sometimes bad
Preparations
Did I ate, practise?
Started to appear some work and stuff
Quit school . . . more focus on floorball
A lot of other things that occupied my time
**Perceived total health during stage:**
Could think . . . I maybe had a better health when I was younger
I do not think a had maximum health . . . if I had it before it might be a bit lower now

**Stage 4. 6 years (approximately 20-25 years old):**

**Career highlight:** Gold-medal Swedish Championship Floorball

**Practise during stage:**
Four times a week
We trained better or more efficient

**Competitions during stage:**
Approximate one game a week

**Sport importance during stage:**
That is why I moved here
It was the reason I was here

**Social support during stage:**
Then it was friends
Those friends I had here, were in the team
You saw them at practise, you saw them in the evening, and was them on the weekend . . . that was what was important

**Pressure during stage:**
I came here and had not played top national floorball before, and then of course I did not have so much pressure on me
During the years it has increased, a lot you could say
As the times went by it has become quit high pressure

**Injury/Overtraining experience:**
No, no major

**Health strategies during stage:**
Now you thought about it more I think
This was when I started studying also, so you became aware of it in a new way and might have thought about it more
It was necessary
I think you could see on people in the team that did not have the awareness about it, it affected their performance a lot
Then you had to be careful about your health

**Perceived total health during stage:**
It has been very good . . . I cannot complain

**Stage 5. France (approximately 26-27 years old):**
Practise during stage:
Four times a week
I did not think we had a very different type of practice

Competitions during stage:
One game a week

Sport importance during stage:
That is why I went down to play
But at the same time it was a lot that was new to me down there, that took a lot of energy and power . . . a new country, a new language
A lot of other things that had to work out

Social support during stage:
Family, girlfriend
Had girlfriend with me and that helped a lot
It was damn important, that it, that it functioned and that we had it well at the side of it all
New friends

Pressure during stage:
It was high
They expected that all that goes down there shall win the points table, and yes, you should help the team win the gold
High pressure
Big difference

Injury/Overtraining experience:
I had some minor injuries down there that I have been thinking a lot about why they came
No major things
You were out for a bit now and then, and you could not go all the way
I think it is about the fact that it was a high pressure and you… it was a lot of other things that took energy
You were quite scattered
You might have been to practise a bit more than you should’ of, though you had some small injury
You thought you could not stay home because of something so small

Health strategies during stage:
I already thought of it before going down there, that is, the last few years
I had a good picture of it
I tried to think of health as much as I used to, I think

Perceived total health during stage:
It was not the best
You had an amazing amount of spare time, and we did a lot of fun things, and it is a nice country
But it was a bit more injuries
Stage 6. Eskilstuna (approximately 27-28 years old):

Practise during stage:
As before

Competitions during stage:
Yes (as before)

Sport importance during stage:
It does not mean as much
I got a child right before we left France . . . it has taken up quite much
It is not as important any more
Focused a bit less on floorball . . . and enjoyed more of everything else around

Social support during stage:
Family

Pressure during stage:
I think the pressure is the same . . . but I do not care as much about it anymore
I think people expect you to do at least as good as before, but I do not feel it as much of it

Injury/Overtraining experience:
No

Health strategies during stage:
I feel that I feel very good when it is not all about the floorball anymore
It is really the same answer as when I was a youth player . . . then everything is about the floorball and I thought it was everything
Now you have came as far as to when you feel that it is quite good when everything is not about floorball anymore
What health is might have changed in mind

Perceived total health during stage:
Very good
Perhaps the best
I have found a good balance in it all

Sports career satisfaction level: 8
There are some things you think you should have put a bit more effort in
I have played in the national team a couple of times . . . in recent years I have did not think it was as fun . . . I’ve rather spent those weekends at home . . . in fifty years I perhaps would regret that
But I cannot be dissatisfied

Current health satisfaction level: 10
I have nothing I feel I can complain about
I am sharp
Feel well almost always
Very seldom injured
Almost always healthy
It is fine at home, it is fun to work . . . it is more often than not fun to play floorball

*Sports career and health satisfaction level relationship*
The athletic career has affected health a lot, I am sure of that
If you have a good career I think you have a good health
I can see that those who maybe did not have the best of health . . . messy at home . . .
o job . . . they have not got so far in their career
It is connected quite clearly

*Sports career continuation*
Half a years more or so (on high competitive level)
To the end of this season

*Future athletic career goals*
To end it with a gold-medal . . . that’s why you do this

*Health related strategies in the future*
(on high competitive level)
You know quite well what it takes, and I think that I am living after that
You cannot do more I think, then it depends on other things if we do not win

(after high competitive level)
I have been thinking about that . . . will you notice a big difference in your body
Maybe you will have less fortitude and you will eat worse and drink more
There are more occasions perhaps, to live unhealthy
Nothing I know for certain
I will exercise less often
I will have more time to do other things I find fun . . . it might balance up
### Appendix 4

**Table 1. The importance of health to the athletic career**

(n=4)

<table>
<thead>
<tr>
<th>Raw data/integrated units</th>
<th>Low order themes</th>
<th>High order themes</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Important to eat (2)</td>
<td>To nurture/care about your body</td>
<td>Having a fit body (43%)</td>
<td>The importance of health to the athletic career</td>
</tr>
<tr>
<td>Important to sleep (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important to take care of oneself (1)</td>
<td>To avoid injuries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important if you want to be better (3)</td>
<td>To improve performance</td>
<td>Performance improvement (29%)</td>
<td></td>
</tr>
<tr>
<td>Practice (1)</td>
<td>Practise brings good health and improved performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important in any possible way (2)</td>
<td>Everything about health is important</td>
<td>Overall importance (21%)</td>
<td></td>
</tr>
<tr>
<td>Realising the importance in late years (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important that social life is good (1)</td>
<td>A good social life</td>
<td>Social-life aspects (7%)</td>
<td></td>
</tr>
</tbody>
</table>
Table 2. The positive influences of athletic career on health

<table>
<thead>
<tr>
<th>Raw data/integrated units</th>
<th>Low order themes</th>
<th>High order themes</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercising regularly</td>
<td>Exercising regularly throughout life</td>
<td>Physical nurturing (42%)</td>
<td>The positive influences of athletic career on health</td>
</tr>
<tr>
<td>(4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continue exercising after termination (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eat and sleep well</td>
<td>Body nurturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can't party (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very fit (1)</td>
<td>Fit body</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feel better . . .</td>
<td>Physical well-being</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physically (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling of wellness</td>
<td>Feeling well</td>
<td>Psychological nurturing (42%)</td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feel better . . .</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychologically (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helps concentrating</td>
<td>Concentration and thinking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entering own mind to reflect (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alone time (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A lot of teammates</td>
<td>Creating a network of friends</td>
<td>Social encounters (8%)</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meeting people (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get to be outside</td>
<td>To be in nature</td>
<td>Experience nature (4%)</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very positive for your health (1)</td>
<td>Positive in any way</td>
<td>Overall positive (4%)</td>
<td></td>
</tr>
</tbody>
</table>
Table 3. The negative influences of athletic career on health

<table>
<thead>
<tr>
<th>Raw data/integrated units</th>
<th>Low order themes</th>
<th>High order themes</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting injured (2)</td>
<td>Acute injuries</td>
<td>Physical injuries (66%)</td>
<td>The negative influences of athletic career on health</td>
</tr>
<tr>
<td>Sport specific injuries (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attritional wear (1)</td>
<td>Injuries due to overtraining/attritional wear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playing though having minor injury (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You get to meet the family at home less often (1)</td>
<td>Sacrifice time with important others</td>
<td>Social-life sacrifices (17%)</td>
<td></td>
</tr>
<tr>
<td>Getting struck by epidemics in team sports (1)</td>
<td>Spreading diseases</td>
<td>Epidemics (17%)</td>
<td></td>
</tr>
<tr>
<td>Raw data/integrated units</td>
<td>Low order themes</td>
<td>High order themes</td>
<td>Category</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------</td>
<td>-------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Increase strength (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase practise sessions (2)</td>
<td>Working on physical aspects</td>
<td>Physical improvement (50%)</td>
<td></td>
</tr>
<tr>
<td>Sport-specific techniques (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexibility (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diet (1)</td>
<td>Controlling diet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stop drinking soda (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental improvement (2)</td>
<td>Working on psychological aspects</td>
<td>Psychological improvement (25%)</td>
<td>Health related strategies in the future</td>
</tr>
<tr>
<td>Using will-power (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feel well (1)</td>
<td>Increase well-being</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don't want to change (2)</td>
<td>Doing as before</td>
<td>No change (19%)</td>
<td></td>
</tr>
<tr>
<td>Keep training (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It depends on other things if not winning (1)</td>
<td>Depending on other persons/things</td>
<td>Dependent on external matters (6%)</td>
<td></td>
</tr>
</tbody>
</table>