



IDROTTPSYKOLOGI



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## PERCEIVED FACTORS INFLUENCING ATHLETIC PERFORMANCE ACROSS CAREER STAGES

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### **Abstract**

The objectives in the study were to examine: (1) factors that contributes to successful athletic performance across career stages; (2) factors that contributes to poor athletic performance across career stages. The theoretical frameworks included: model of psychological preparation for peak performance (Hardy, Jones, & Gould, 1996); the developmental model on transitions faced by athletes (Wylleman & Lavallee, 2004). Ten participants took part of the study (N=10) and consisted of five individual sport athletes and five team sport athletes from local to international competitive level. Semi-structured interviews were conducted derived from the semi-structured interview guide specially created for this study, which was based on the theoretical frameworks. The results are presented in three parts, and 8 category profiles describing the factors contributing to successful and poor athletic performance on the initiation-, development-, mastery- and maintenance stage. The results showed a list of factors contributing to both successful and poor athletic performance across different career stages for example, social support, family, coach, teammates, athletic ability, athletic experience and, athletic achievements. The results also showed that the factors seems to play a different role depending on the different athletic career stage for instance, supportive significant others and sporting environment turned out to be a more important contributing factor to athletes successful athletic performance on the initiation stage, where athletic ability turned out to be a more important contributing factor to athletes successful athletic performance on the mastery stage. The results are discussed based on the theoretical frameworks and previous research. Suggestions on future research and implications are given.

Key words: Athletic achievement, athletic career, athletic experience, competitive sports, peak performance.

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### Sammanfattning

Syftena med föreliggande studie var att undersöka: (1) faktorer som bidrar till framgångsrika idrottsprestationer genom idrottskarriären, (2) faktorer som bidrar till dåliga idrottsprestationer genom idrottskarriären. De teoretiska ramverk som ingår i studien är: model of psychological preparation for peak performance (Hardy, Jones, & Gould, 1996); the developmental model on transitions faced by athletes (Wylleman & Lavallee, 2004). Tio deltagare deltog i studien (N=10) och bestod av fem individuella idrottare och fem lag idrottare från lokal till internationell tävlingsnivå. Semi-strukturerade intervjuer genomfördes utifrån en framtagen intervjuguide speciellt skapad för denna studie, som byggde på teoretiska ramverk. Resultaten presenteras i tre delar, och 8 kategori profiler beskriver de faktorer som bidrar till framgångsrika och dåliga idrottsprestationer i inledningsstadiet-, specialiseringsstadiet-, toppstadiet- och underhållsstadiet. Resultaten visade att faktorer som bidrar till både framgångsrik och dåliga idrottsprestationer förekom under olika skeden av idrottskarriären som, t.ex. socialt stöd, familj, tränare, lagkamrater, idrottslig förmåga, idrottsliga erfarenheter och idrottsprestationer. Resultaten visade också att de olika faktorerna verkade spela olika betydelse beroende på det specifika karriärsteget inom idrotten. Ett exempel är stödjande närstående och idrottsmiljö som visade sig ha störst betydelse för bidragandet av framgångsrika idrottsprestationer i inledningsfasen. Idrottslig förmåga visade sig ha störst betydelse för bidragandet av framgångsrika idrottsprestationer i toppfasen av idrottskarriären. Resultaten diskuteras utifrån teoretiska ramverk och tidigare forskning. Förslag på framtida forskning samt implikationer ges.

Nyckelord: Idrottsprestation, idrottskarriär, idrotts erfarenhet, tävlingsidrott, toppprestation

## **Introduction**

Michael Jordan, the known basketball player, returned to the NBA after retiring in 1993. According to many people he had nothing to prove or gain from his return to the NBA. Earlier he was a perennial league MVP, scoring leader, and defensive star, and he had won three NBA championships with his Chicago Bulls, from 1990 to 1993, in which he was MVP of the finals all three times. Apparently his status as the greatest basketball player in the NBA history was only heightened by his early retirement. His decision to return to basketball in 1995 put him in a pressured situation of having to compete with his own larger than life legend. So Jordan returned to the game and stated: "Eventually, I just decided that I love the game too much to stay away. All of this is about challenges. Everytime I go on the court, it's a challenge" (Vealey, 2005, p. 34). His motivation to experience the stimulation and challenge of basketball outweighed any pressure he felt to live up to his prior performances. And upon his return to pro basketball, he together with his Chicago Bulls, won three more NBA Championships, where Jordan again won the MVP of the finals each year.

So based on the previous decision, made by one of the greatest known athletes, this could be exemplified by an athlete's experience of feeling pleasure and satisfaction while performing an activity which give the opportunity to explore and learn something new. It also could be exemplified by the motivation to experience stimulating sensations as fun, excitement, and love. It could finally also be the attempt to accomplish something important during the process of striving to be more competent, at the same time. These feelings could be clarified as the three types of intrinsic motivation supported in sport: intrinsic motivation to know, intrinsic motivation for stimulation, and intrinsic motivation for accomplishment (Duda & Treasure, 2006; Hollebeak & Amorose, 2005; Vealey, 2005). To understand these strivings of drive of intrinsic motivation to know, for stimulation, and for accomplishment which further can be a contributing factor, or influenced by different of factors, it becomes critical for athletes to deal with balancing practise, competitions, and recovery by balancing sport with other activities, such as interpersonal relationships and social interactions, and deal with succeeding normative and/or non-normative stages. In this way athletes can continue their athletic career so that they can perceive their sports involvement as enjoyable. The stages include initiation, development, mastery, maintenance and discontinuation stage. By coping successfully with each of these stages and with other characteristics that follow each stage, athletes can progress in their athletic development. Coping with each stage also include the demands of the transition from one stage to another which mean that athletes must cope with the demands of the stages and transitions that occur concurrently with those at the athletic level in their psychological, psychosocial, academic and vocational development as well (Alfermann & Stambulova, 2007; Lavalley & Wylleman, 2000; Stambulova, 2009; Wylleman, Theeboom, & Lavalley, 2004). Therefore the following key terms are defined below.

## **Key terms**

### **Athletic career**

Athletic career is a determination through a complex interplay between genetic, personal and environmental factors and is a term for a multiyear sport activity, voluntarily chosen by the person and aimed at achieving one's individual peak in athletic performance in one or several sport events. It is also described as a sequence of specific stages and transitions that include an athlete's initiation into and continued participation in organized competitive sport and that

is terminated with the athlete's voluntary or involuntary but definitive discontinuation of participation in organized competitive sport. The term athletic career also include subjective parameters consisting of perceived benefits of sport participation and its cost in terms of time, energy, health, money as well as career satisfaction (Alfermann & Stambulova, 2007; Stambulova, 2009; Wylleman, Theeboom, & Lavallee, 2004).

### **Transition**

A transition is a result from one or several events that cause personal and social imbalance that are beyond any ongoing changes of everyday life and that can cause a change in the athlete's assumption about herself or himself. Transitions come with a set of specific demands related to practice, competitions, communication, and lifestyle that athletes have to cope with to continue successfully in sport or to adjust to a post career (Alfermann & Stambulova, 2007; Stambulova, 2009; Wylleman, Theeboom, & Lavallee, 2004).

### **Normative transition**

A primary characteristic of a normative transition is the degree of predictability, and transitions that are mainly predictable are generally organisational and/or structural in nature and may be related to changes in athletes' level of athletic achievement or age (e.g., initiation into competitive sport, the transition from high school to college level competitive sports, the transition from junior to senior level). A normative transition is a part of sequence of age-related biological, social, and emotional events or changes and that can be said to be generally related to the socialization process that the athlete is involved in (Wylleman, Lavallee, & Alfermann, 1999; Wylleman, Theeboom, & Lavallee, 2004).

### **Non-normative transition**

Non-normative transition is the low degree of predictability that is situation-related and is generally unpredicted, unanticipated, involuntary, and that does not occur in a set plan or schedule but rather is the result of an important event that takes place in an athlete's life and to which she or he responds. A non-normative transition can be sport related, for example a transition caused by injury, overtraining or changing one's coach (Alfermann & Stambulova, 2007; Wylleman, Lavallee, & Alfermann, 1999; Wylleman, Theeboom, & Lavallee, 2004).

### **Successful athletic career**

A successful athletic career refers to the athletic career of an athlete who achieves and sustains in a consistent manner of high level of athletic excellence in national or international competition. Successful elite careers are usually associated with high social recognition, and satisfaction of an elite career is based on a set of self referenced criteria, which often consist of perceived potential in relation to level of achievements and perceived athletic career cost. Successful athletic careers are associated with achieving individual peak in athletic performance corresponding to individual resources and environment (Alfermann & Stambulova, 2007; Wylleman, Theeboom, & Lavallee, 2004).

### **Successful athletic performance**

A successful athletic performance is the optimal performance that is self-referenced criteria based on past performance history and the present performance status (Hanin & Stambulova, 2004; Wylleman, Theeboom, & Lavallee, 2004). A successful athletic performance also is the perceived potential in relation to the level of achievement and the perceived athletic performance cost. The indicator of a successful athletic performance is the result (outcome) achieved and the quality of performance process (task execution).

## **Peak performance**

Peak performance is defined as a optimal functioning and of the full use of one's potential in the activity. It's the full focus, and sense of self in a clear process of feeling in control which is at the positive extreme of performance (Hanin, 2000).

## **Theoretical frameworks**

### **Model of psychological preparation for peak performance**

In order to understand the complex relationship between psychological preparations and athletes social-organisational environment, the model of psychological preparation for peak performance by Hardy, Jones, and Gould (1996) serves as a core model in the study. The model aims to incorporate as many factors and variables as possible that seems to influence athletic performance. The model consists of five components. The first component is: (1) fundamental attributes, and is the base of the model. The second component consists of: (2) psychological skills and strategies, and is on the left side of the pyramid. The third component in this model is the right side of the pyramid, and consists of: (3) adversity coping strategies. The fourth component of the top of the pyramid consists of: (4) task specific ideal performance state. This specific state should in turn lead to peak performance but is further influenced by the fifth component: (5) the social and organizational environment.

#### **1. Fundamental attributes**

The fundamental attributes contains the personality and motivational characteristics and dispositions of the athlete such as the athletes level of trait confidence, goal orientations, trait anxiety, and attentional style. These individual differences and factors are important because they influence the arousal and activation in the first place. Further why these factors are important is because the influenced arousal state then directly or indirectly have an impact to which extend the athlete achieves a desired task specific ideal performance state. It influence the task specific ideal performance state through trait anxiety which in turn influence cognitive and somatic state anxiety. This can further lead to a change in arousal and activation state that have an impact on the athletic performance. Both personality and motivational dispositions are very important for the performance, but also difficult to modify. This is because of the perceived competence of achievements in early childhood that have been established, and in this way formed the athlete's motivational disposition. Psychological factors rarely operate in isolation, they are influenced by athletes' foundation mental skills. These components must first be taken into consideration before examine other components of this model according to Hardy, Jones, and Gould (1996).

#### **2. Psychological skills and strategies**

This component of the model consists of the various psychological skills and strategies the athlete adopt to be able to create, and reach the ideal performance state. Different athletes use different types of skills, and can depend on the previous component existing of fundamental attributes. Typical psychological skills are goal-setting which in turn can consist of specific process goals, relaxation strategies, self-talk, mental rehearsal, imagery, mental preparations, pre-performance and performance routines, automatization of routines, association/dissociation strategies and attributions. These psychological skills work along with other psychological skills and are used by the athlete in order to facilitate the performance to reach peak performance in a task specific ideal state.

### **3. Adversity coping strategies**

The athlete also needs to be able to deal with different types of adversities, and this by using various adversity strategies. This because the athlete can deal with many types of stressors, ranging from injury to travel demands, and other expectations that lies within the athletic atmosphere. These strategies can be developed as well as the previous psychological skills, and includes emotion-focused coping, problem-focused coping, cognitive restructuring, and avoidance strategies. These methods are further used by athletes according to Tenenbaum (2004) to appraise the environmental pressure that enable appropriate processing of information and decision making. These strategies can further be concretized to strategies as relaxation techniques, goal-setting, process goals, imagery, self-talk, attributional patterns and different associative and dissociative strategies. Many of these strategies in the component of adversity strategies are the same as the psychological skills strategies. The main difference is the way in which they are used, and can depend on the purpose of why the strategy is being adopted.

### **4. Task specific ideal performance state**

This component is the top of the model and is a special state that the athlete has reached and in which the athlete performs very well. This specific state has been referred to as flow (Hardy, Jones, & Gould 1996). The content of this state can be the same for most athletes, that have ever reached this state. The difference is or can be that some athletes prefer a noisy audience while others want to listen to Mozart while performing. This is further depending on the athletes level of trait-anxiety which in turn have an impact on emotions, cognitions, that further activates an physiological state in a given context. This state is a mixture of these variables. The zone of optimal functioning (Hanin, 2000) shows how an interaction of the athletes trait anxiety is functioning and shows to which extent the athlete needs to be psyched up, or relaxed in order to reach the special state. This is further also influenced and is depending on the social and organizational environment the athlete is performing in. Also in which environment the athlete prefer to perform in, and is a contributing influential component of how the athlete reaches a flow state.

### **5. Physical, social, and organizational environment**

This component of the model consist of the social and organizational environment in which the athlete performs in. This area is a surrounding component of the model and can be symbolized with a circle surrounding other components mentioned in the model. The environment can have a both facilitative and debilitating effect on the way to achievement of an ideal performance state. A new coach that enters the social environment can have a both good and bad influence on the athletes way to reach an ideal performance state. Or if an athlete already is in an ideal performance state, a new coach can reinforce the athletes ideal performance state. Or in reverse, also decrease the athletes probability of succeed to reach or maintain in this state. Other variables as family problems, lack of finances within the club, unsupportive spectators, and so forth can be included in this component. The same variables can be reversed and serve as good facilitative variables in the social environment of the context in which the athlete performs in. All these five components must be taken into consideration in order to be able to facilitate specific psychological skill strategies, or coping with adversity strategies, to reach a ideal task specific performance state.

### **Developmental model on transitions faced by athletes**

The developmental model addressed by Wylleman and Lavallee (2004) serves as the second model in the study. The developmental approach in this model provides a link between the athletes past career experiences, the present situation and the athletes perceived future. The

model add a whole person approach to a whole career approach. The whole person approach means helping athletes to deal with both athletic and nonathletic transitions. The whole career approach means helping athletes to cope with both normative and nonnormative transitions throughout the whole course of an athletic career, including the last athletic transition from sport to the postcareer. This is important to note because different spheres of life might influence or overlap, and create difficulties for the athlete to perform at his or her best. In this way it becomes clear to see the athlete in the sport context, but to also consider the athlete's demands, resources and barriers outside of sport (Alfermann & Stambulova, 2007; Fallby, 2004; Wylleman & Lavallee, 2004). The model is further explained in more detail below (see Figure 1).

Age	10- 15	15- 20	20- 25	25- 35
<b>Athletic level</b>	Initiation	Development	Mastery	Maintenance/ discontinuation
<b>Psychological level</b>	Childhood	Adolescence	Adulthood	
<b>Psychosocial level</b>	Parents Siblings Peers	Peers Coach Parents	Partner Coach	Family Coach
<b>Academic vocational level</b>	Primary education	Secondary education	Higher education	Vocational training Professional occupation

Figure 1. A developmental model on transitions faced by athletes (Wylleman & Lavallee, 2004).

The model is built up by four different levels that are integrating with one another in the athletes development from the beginning of the athletic career throughout the end (termination) of the athletic career. The four different levels represent: (1) athletic level, (2) psychological level, (3) psychosocial level, and (4) academic vocational level. All four representing levels follow a linear line throughout the athlete's whole development, interact with one another, and are further divided into four different stages.

The first stage at the athletic level is the initiation stage. This is where the athlete first enters the sport, and usually happens when the athlete is at a young age. In the development stage, at the athletic level, a transition into more intensive level of training start to take place, and competitions usually starts to take more time. The third stage is the mastery stage. This is where the transition into higher level of training and competition starts. In this stage the athlete usually reaches the top of the athletic career. The maintenance/discontinuation stage is where the athlete tries to maintain a high performance level until the discontinuation, where the athlete starts to prepare for an end of the athletic career. All different stages on the athletic

level include other aspects of life, consisting of the athlete's psychological, psychosocial and academical development. The model above (see figure 1) indicates factors that are important contributors, and interact with the athletic career throughout the athlete's development. For example, an athlete that performs on the development stage, being an adolescence, may think that the coach have a great impact on the athlete's athletic progression. This in turn can influence the athletes academical progression in secondary school (Wylleman & Lavallee, 2004). The age stages indicated of the top of the model is an approximation of where the transitions usually occurs. The age stages also serves as averaged over many athletes and several sports (Alfermann & Stambulova, 2007).

### **Relevant Research Findings**

There turns out to exist much relevant research findings to the theories that generate this study. For example, the fundamental attributes in Hardy, Jones, and Gould's (1996) model state that fundamental attributes are very important variables. These fundamental variables, for instance, consists of an athlete's personality characteristics and motivational orientation. These fundamantal attributes further have an impact to which extend an athlete achieves a desierd task specific ideal performance state. Athletes fundamental achievement goals, which determines athletes further achievement behaviours, are reflected in terms of different types of achievement and motivational patterns. The existing achievement goals and patterns which work along with the social-environment context the athlete is involved in, varies in terms of how these achievement goals further are emphasized in the environment. Those who are involved in the social-environment context also influence the process of achieving one's achievement goals (Duda & Balaguer, 2007; Hardy, Jones, & Gould, 1996). The social context is build up by parents, coaches and peers who helps to create a quality sport involvement. Coaches are powerful influence in strengthen attitudes where peers further facilitate or debilitate athletes sport experiences (Duda & Balaguer, 2007; Wylleman & Lavallee, 2004).

#### **Initiation stage**

During this stage athletes are engaged in sports for fun. Parents and coaches provide lot of guidance and support and help athletes to test different sport diciplines that can be the one or two most suitable to their interest and abilities (Bloom, 1985; Salmela, 1994; Wylleman & Lavallee, 2004; Coté, 1999; Stambulova, 1994). The social context which is created by significant others also varies in terms of achievement goals, where two major goals have been found to reflect two different ways of judging one's competence: a task goal and an ego goal. Since athletes can be characterized by their individual differences in the tendency to emphasize task- or ego- focused criteria for subjective success in goal orientation, task goals are assumed to lead to particular motivational processes to help athletes achievement strivings be more resilient and constructive. These behaviours and outcomes are further viewed as adaptive achievement pattern which also determines the athletes future commitment to sport, which further is influenced by the athlete's conception of his or her ability (Duda & Balaguer, 2007; Treasure & Roberts, 1995). Treasure and Roberts (1995) further state that more than one conception of ability exist and an athlete's cognitive and affective patterns are determined by the conception of the ability adopted. Research also suggest that the concept of ability is a process of distinguish luck, task-difficulty, and effort from ability. Younger children are not able to distinguish between the concepts, but at the age of 12, children are more able to distinguish task difficulty, luck, and effort from ability. Research in this area, also support that the same development process occurs in the physical activity in school context. According to

Treasure and Roberts (1995) this further mean that athletes conceptions of the ability they employ, and how they interpret their performance can be understood in terms of these perceptions and beliefs. This in turn further leads to the athletes adopted personal theory, of the belief of how to achieve success in the physical activity in sports as well as in school context. Treasure and Roberts (1995) further also suggest that athletes can work together for example, during a dribbling in soccer skill test, or practice, athletes can work together to set up the dribbling course, and monitor the performance among eachother by recording times on successive trials measured with a stopwatch.

#### **Commitment to sport.**

Commitment to sport and practice further means that an athlete may be committed in playing the sport for the inner pride and love of the game. This in turn facilitate athletes effort and learning, and the probability of avoiding practice decreases (Duda & Balaguer, 2007; Treasure & Roberts, 1995; Roberts, Darren, Treasure, & Conroy, 2007; Vallerand, 2007; Vealey, 1988). Other strategies, as showing an corresponding tendency to avoid practice and focusing on winning during competition is associated with an ego-orientation. For exemple, an athlete that holds an task oriented motivational disposition, belives that hard work, development of skills, cooperation with other teammates leads to success. If an athlete holds an ego-oriented motivational disposition (that usually has been established in early childhood), the athlete will associate success with strategies such as cheating for instance. In such cases the athlete will have a strong belief that having high ability, be able to demonstratet this ability, with less effort as possible will lead to the outcome of achieving athletic success. In studies concerning different types of goal-settings and how these pertained to athletes athletic performance, Locke and Latham (1985) propose that athletes goals should be difficult and realistic to produce maximum performance benefits. This is finally what Burton and Weiss (2008) mean with what the distinction is between process, performance, and outcome goals. According to the authors the only way for performers to stabilize their self-confidence and feel competent regardless of the outcome is to replace the pervasive goal of winning with realistic process and performance goals, where athletes may set three types of the mentioned key goal categories. Process and performance goals are the path which leads to successful outcome goals, and are most effective goals for athletes to use. Process goals further consist of standards that are based on controllable thoughts or actions related to the performance execution (Behncke, 2004; Burton & Weiss, 2008; Chapman & Mahoney, 2004; Gallucci, 2008; Gould, 2006; Hardy, Jones, & Gould, 1996; Locke & Latham, 1985; Vealey, 1988; Vealey, 2005; Weinberg & Gould, 2007).

#### **Social support in sport.**

According to the majority research findings regarding the parent-created motivational climate that has been completed (White, 2007), a PIMCQ-2 measurment has been developed. This measurement assess dimensions and correlations of the perceived situational goal structure initiated by parents when young athletes learn physical skills. The PIMCQ-2 has 18 items that are repeated twice to record sport and exercise participants' perceptions of the motivational climate created, first by their mothers and next by their fathers. The questionnaire consists of three subscales measuring (1) a learning and enjoyment climate, (2) a worry-conductive climate, and (3) a success without effort climate. A further three factor structure of the PIMCQ-2 has been established where two contrasting environments have been identified: a task-invloving climate and an ego-invloving climate. The results of this correlation analysis demonstrated that athletes high in task- orientation also perceived that both parents valued a climate that focused on learning and enjoyment, and that this orientation was negatively related to the perception that success was achieved through the demonstration of low levels of

effort. Athletes that showed to be high in ego-orientation perceived their parents to emphasize a climate where success was related to the exertion of low levels of effort. In another study in Wylleman, De Knop, and Cecic-Erpic (2007) on the other hand, it was found that most parents of elite athletes were very sport-minded, and pushed their children into participating in different sport activities. In another study researchers also found that parental involvement was strongly related to providing emotional support. The role of positive parenting was shown in sports as basketball, swimming, volleyball, soccer and American football (Wylleman, De Knop, & Cecic-Erpic, 2007). According to another study, concerning social support, Coté (1999) states that higher parental encouragement is associated with greater perceived physical competence of young athletes. Other studies have shown that parents of committed athletes usually are willing and happy to attend their athletes' competition (Csikszentmihalyi, Rathunde, & Whalen, 1993; Monsaas, 1985; Sloan, 1985). These studies also support another study which showed that highly motivated athletes, striving for success, were less likely to drop out than athletes with a lower level of motivation. Athletes who made a successful within-career transition from lower to higher phase also had higher parental support and higher coach attention (Alfermann & Stambulova, 2007).

### **Development stage**

According to Bloom (1985), Coté (1999), Salmela (1994), Stambulova (1994), Wylleman, Lavalée, & Alfermann (1999), Wylleman and Lavalée (2000), and Wylleman and Lavalée (2004) athletes narrow their focus to one or two sport disciplines in this stage, so that they can practice in a more structured and deliberated way. In this stage the sport also becomes an education where athletes still have a lot of fun, but the focus is on learning sport-specific skills, increasing physical fitness level, and demonstrating learned competencies in competitions. Practice and competitions also take more time and energy than in the initiation stage, and it becomes more difficult to combine sport with studies and other activities.

### **Discipline in sport.**

Discipline which also corresponds to the psychosocial level in Wylleman and Lavalée's (2004) developmental model, consists of athletes conforming to dedications such as personal responsibility, obeying others, such as coaches and teachers, and of production. It also includes athletes' willingness to sacrifice valued elements of their adolescent lifestyles in order to pursue a professional athletic career in the future. This can mean a necessary sacrifice of some social activities, such as going to a party with friends. It can also mean a necessary sacrifice of attending social activities, in order to take a break from the discipline for a while, and still remain in a balanced discipline of one's achievement tasks. This element turns out to be an important contributing factor because the organization athletes usually are facing often impose strict institutional demands on them. As a result of these demands athletes also need to display appropriate discipline and behaviour to the institutional demand athletes may display in their sport and school context. This by considering these demands in relation to their athletic career (Holt & Dunn, 2004; Vealey, 1988; Wylleman & Lavalée, 2004). Athletes' conforming dedication, as production in sport, and education is further determined by some factors. One central factor is an athlete's perception of his or her task-involving climate (Duda & Balaguer, 2007).

In a study regarding the PIMCQ-2 measurement, the PIMCQ-2 measurement which was used together with a motivational climate in sport questionnaire-2 (PMCSQ-2), showed a relationship between goal orientation and perceptions of the motivational climate among young athletes when studied significant others in the study. The significant others included physical education teachers, coaches and parents. The participants were between 12-14 years

old and completed five questionnaires on two separate occasions before organized sport practice. The results showed that goal-orientations were related differentially to the perceived motivational climate created by significant others. Task-orientations were related to perceptions of a task-involving climate, and were related to perceptions of a task-involving climate created by the coach and parents. Ego-orientations showed to correspond to the perception of an ego-involving climate, a success without effort climate created by the fathers, and a worry conducive climate created by both parents. The study also showed that physical education teachers appeared to be less important socializers than coaches and parents. This makes sense according to the study, considering the amount of time athletes spend with their coaches and parents.

### **Social support in sport.**

In another study regarding the quality of the relationship in the athletic triangle perceived by 13-18 year old high level competitors, it was found that athletes not only had an open attitude toward their parents, they also expressed a clear need for emotional support from their parents. The results also revealed that these athletes also felt their parents provided them with this type of support (Wylleman, De Knop, Verdet, & Cecic-Erpic, 2007).

### **Mastery stage**

During the mastery stage (perfection stage) athletes become experts in their sports and feel obsessed and responsible for their practices and competition performances. Coaches often turn into mentors or advisors, and parents play a lesser role because athletes control major aspects of their career themselves. For top athletes sport becomes a job or professional activity oriented to high achievements and social recognition. Athletes set high performance goals, have an extensive amount of deliberate practice, and subordinate their lifestyle to sport, making more sacrifices in other spheres of life. They have a strong athletic identity, and their sport achievements and social recognitions contribute a lot to their self-esteem. This stage also lasts between 5 and 15 years (Bloom, 1985; Salmela, 1994; Wylleman & Lavallee, 2004; Coté, 1999; Stambulova, 1994).

According to a study made on adolescent elite male soccer players (Holt & Dunn, 2004) four major psychosocial competencies appeared to be central to athletic success. These factors turned out to be commitment, resilience, the ability to use different types of social support, and discipline. In another study psychosocial responses of competitive soccer players were examined and how these pertained to perceptions of parental influences. The results of the regression analyses revealed two interesting findings. The first finding revealed that it appeared that mothers and fathers who were thought to be highly engaged in physical activity gave lots of encouragement for performance success, perceived their child to be competent in sport, and had children with high perceived competence, intrinsic motivation, and enjoyment of physical activity. Second, there also appeared to be a gender difference for fathers. The soccer players that perceived their fathers to be highly involved in their sport participation and not pressuring them to perform had the most positive psychosocial responses of all the participants. These findings support the notion that parents play a critical role in the socialization of their children in sport (White, 2007). In a study regarding the link between the positive type of parental behaviour and athletes' athletic development, the study investigated athletes between the age of 8-21 years in a follow-up study over a 2-year period. It appeared that athletes who made the successful athletic career transition from one stage to another, felt that they received more sport-related advice and emotional support from their parents compared with the athletes who did not make the transition (Wylleman, De Knop, Verdet, & Cecic-Erpic, 2007). According to a study made by Bloom (1985) athletes' family is

reported to remain a support system and an emotional refuge from stress of competition during this stage. In another study it appeared that for one athlete, the parents were the only people who the athlete could rely on after having experiencing setbacks in sport, and in another study the support from family and financial support turned out to be the two most important resources for coping with the transition from the junior to senior level (Wylleman, De Knop, Verdet, & Cecic-Erpic, 2007).

### **Resilience in sport.**

Resilience can be described as an ability to overcome personal and contextual obstacles where athletes use positive and productive coping responses to manage different demands that they are facing in their context (Holt & Dunn, 2004). According to Hardy, Jones, and Gould (1996) different psychological skill strategies, and coping with adversity strategies are important to adopt in order to manage different sport demands. Different coping strategies such as self-talk, as in emotion-focused coping strategy, or such as monitor one's behavior, as in problem-focused coping strategy are further some examples of coping strategies athletes can benefit from (Hardy, Jones, & Gould, 1996; Vealey, 2005). Personality factors also play a critical role in coping (Hardy, Jones, & Gould, 1996) and to be able to adopt different strategies, athletes need to manage and use task-related strategies, such as breathing control, relaxation or imagery (Tenenbaum, 2004; Vealey, 2007). A right combination of an appropriate arousal activation, which is derived from the athletes ability to use task-related strategies, is important to athletes appropriated directed attentional focus in sport. This can further be combined into four different types of attentional styles: narrow-internal, narrow-external, broad-internal and broad-external (Hardy, Oliver, & Tod, 2008; Johnson, 1999; Moran, 1996; Nideffer & Sagal, 1996). Athletes then shift to the appropriate type of concentration to match changing attentional demands that are required for the sport, which also depends on the type of sport, since different sports require different type of attentional demands (Moran, 1996; Nideffer & Sagal, 1996). According to Roberts, Treasure, and Conroy (2007) it appears that those athletes who use effective coping strategies in elite competition, also report the feelings of playing good and keep their concentration on the game.

### **Maintenance/discontinuation stage**

The stage between the mastery and the discontinuation stage in the athletic career development, is where the athlete tries to maintain sport results on a high enough level, and starts to prepare for termination (Stambulova, 1996; Wylleman & Lavallee, 2000). Majority research concerning athletes perceptions of the motivational climate created by their coach (coaches) have been captured via either version 1 or 2 of the perceived motivational climate in sport questionnaire (PMCSQ-1 or PMCSQ-2). The general results of studies examine the motivational climate of the perception of a task-involving environment created by the coach, have further shown to be linked to adaptive achievement patterns among athletes. These adaptive achievement patterns turns out to be demonstrated in terms of; greater enjoyment, belief that effort is an important cause of sport success, self-ratings of performance and improvement, the use of adaptive coping strategies (e.g., problem-solving coping), perceptions of coach's provided positive constructive feedback, perceived competence, higher ratings of team's degree of task and social cohesion, positive peer relationship, good work ethic, stronger sportsmanship value, and finally of less verbalization of excuses before performance among peers (Duda & Balaguer, 2007). In contrast to the adaptive achievement patterns, past work have also revealed maladaptive achievement pattern, as in athletes perception of an ego-involving climate. These patterns have shown to be related to; higher anxiety and performance related worry, the belief that ability is an important determinant of

sport achievement, dropping out of sport, greater conflict among peers, perceiving one's ability in terms of other-referenced criteria, perceiving one's coach providing less social support and positive feedback and more punishment oriented feedback, greater self-handicapping, and less mature moral reasoning and lower moral functioning (Duda & Balaguer, 2007). In a study concerning the nature and dimensions of peer created motivational climate in sport a qualitative study was made. The study was conducted on 30 young british athletes (14 boys and 16 girls) aged 12 to 16, from both individual and team sports where the study revealed 11 dimensions of a peer created climate. These were; improvement, equal treatment, relatedness support, cooperation, effort, intrateam competition, intrateam conflict, normative ability, autonomy support, mistakes, and evaluation of competence among athletes. 3 of these 11 dimensions of athletes perception of a peer created climate, are important dimensions for athletes in order to meet the need for one's relatedness and autonomy in order to perceive the social context as fostering one's achievement goals. These are; improvement, relatedness support and effort (Ntoumanis, Vazou, & Duda, 2007). In another study based on the qualitative previous mentioned study of peer created motivational climate in sport, a new instrument was developed. This instrument was developed to assess young athletes' perceptions of a peer created climate and the instrument was named peer motivational climate in youth sport questionnaire (PeerMCYSQ). The PeerMCYSQ instrument does further not measure all 11 dimensions that occurred from the qualitative study but instead give good five factor of representations of the 11 dimensions that emerged from the series of factor analyses. The task involving factors, in the five factor of the PeerMCYSQ are improvement, relatedness support, and effort among peers. The ego involving factors are intrateam competition and ability, and intrateam conflict (Ntoumanis, Vazou, & Duda, 2007).

### **Social support and commitment in sport.**

According to Ntoumanis, Vazou, and Duda (2007) the task involving factors in the five factor of the PeerMCYSQ, as in improvement, relatedness support, and effort among peers, are critical factors in order to perceive the social climate as a facilitative climate to facilitate one's achievement goals. According to Wylleman, De Knop, Verdet, and Cecic-Erpic (2007) the athletic career of all athletes will end sooner or later due to various of factors, such as a lack of enjoyment, a career ending injury, or due to prioritizing academics before athletics. According to a follow up study consisting of an analysis using the PeerMCYSQ subscales, the study showed that commitment was predicted by the improvement and relatedness support, which underlie athletes commitment and the further desire to continue their sport involvement (Ntoumanis, Vazou, & Duda, 2007). Potential age differences has also been examined in the peer motivational climate by comparing younger and older athletes. The only relevant findings regarding this study appeared that older athletes perceived more intrateam conflict than younger athletes. Younger athletes perceived their peers to be more supportive, but at the same time also perceived them to use more normatively referenced criteria for competence evaluation and to encourage intrateam competition (Ntoumanis, Vazou, & Duda, 2007). According to the research that has been conducted on the discontinuation stage, few research findings are available on the role of parents. However, significant others, which include parents have been found to play a role in the discontinuation process. Case studies on two 18-year old athletes' perceptions of their social network, turned out to change after retiring from elite sport. According to analyses these former athletes perceived the role of their family to increase a lot, compared with the roles played by their coaches and peers. According to research finding on this stage, independent of age group, the importance of social support in terms of emotional support turned out to be one of the three most important factors relevant to a successful retirement from sport. The effect of this type of support was linked to the

intensity to which extent it was provided, rather than to the size of the social network. According to the research findings, it also appeared that the amount of time spent with the family increased a lot for these athletes (Wylleman, De Knop, Verdet, & Cecic-Erpic, 2007).

### **Summary and research objectives**

Fundamental attributes in Hardy, Jones, and Gould's (1996) model include an athlete's personality, trait confidence, goal orientations, trait anxiety, and attentional style. These attributes further determines an athlete's arousal activation, where the achieved arousal state have an indirect or direct impact to which extend the athlete achieves his or her task specific ideal performance state. The athlete's trait anxiety also influence his or her cognitive and somatic state anxiety. Personality and motivational dispositions remains as very important elements for athletic performance. By taking these factors into consideration helps create an better understanding of an athletes motivational disposition. The athletes motivational disposition has usually already been established through early achievement experiences, and include the athletes perceived competence, in relation to his or her early achievement experiences.

Athletes fundamental attributes, such as the athletes motivational orientation can further be characterized by a tendency to emphasize task or ego focused criteria for subjective success. These two different types of achievement goals can also include an approach and avoidance quality, which can be categorized into four major achievement goals (Duda & Balaguer, 2007). These are: mastery or task- approach goals, which focus on the development of competence and task mastery, mastery or task- avoidance goals, which focus on the avoidance of demonstrating self-referenced incompetence, performance or ego- approach goals, which focus on attainment of favorable judgments of normatively defined competence, and performance or ego- avoidance goals, which emphasize avoidance of the demonstration of other-referenced incompetence (Duda & Balaguer, 2007). The success of goal-setting further operates in a context that incorporates numerous of important factors. These are cognitive factors (e.g., individual perceptions of competence) (Duda & Balaguer, 2007) and, social-environmental factors (e.g., team cohesion) (Duda & Balaguer, 2007; Hardy, Jones, & Gould, 1996) and, the athletes reaction to these factors (Holt & Dunn, 2004). These factors benefit from being taken into account and being considered together, since they operate in an athlete's development (Burton & Weiss, 2008; Wylleman & Lavallee, 2004). The developmental approach in Wylleman and Lavallee's (2004) developmental model facilitates the understanding of an athlete's development, from the initiation stage into sport participation, to the discontinuation process, which at last leads to an athlete's final discontinuation in sport participation. Psychological, psychosocial, and educational aspects also interacts concurrently with, and contributes to an athlete's progression in sport on the athletic level, where all these aspects serve to be in an appropriate balance. The different stages in the model, in an athlete's athletic career, also include significant others, which are important sources who helps to create optimal environmental conditions. The environmental conditions, which include parents, siblings, peers, coaches, and physical education teachers, also determines the degree of the probability for the athlete to achieve desired psychological skills, and coping with adversity strategies, in order to reach one's achievement goals, and optimal opportunities for optimal peak-performance conditions in the created environment (Duda & Balaguer, 2007; Hardy, Jones, & Gould, 1996; Ntoumanis, Vazou, & Duda, 2007; White, 2007; Wylleman & Lavallee, 2004). Significant others are also involved in the athletes

development, on different career stages, and influence different career levels, across and throughout all career stages (Wylleman & Lavallee, 2004).

Athletes also benefit from different types of social support across different career stages, where the social support can consist of emotional, informational, tangible, appreciative, and institutional support (Bengtsson & Fallby, 2011; Holt & Dunn, 2004; Taylor, Ogilvie, & Lavallee, 2006; Wylleman & Lavallee, 2000). The sources of social support, also appears to help athletes to overcome obstacles and develop resilience. Emotional support for instance, is the athlete's sources of being able to turn to others for comfort and security during times of stress. Parents role remains critical in this area, but the emotional support can also be provided by teammates, coaches, and other friends (Wylleman & Lavallee, 2000). Taylor, Ogilvie, and Lavallee (2006) also claim that athletes' primary social support system often is derived from the athlete's environment. The informational support is further providing athletes with advice and guidance about possible solutions to different kind of questions. Tangible support, on the other hand, relates to the concrete assistance given to the athlete. Parents usually provide athletes with this kind of support, and can consist of travel assistance and financial support. The appreciative support is the athlete's ability to ask for positive and constructive feedback on task executions from suitable others from the environment. The institutional support is further the assistance provided by an organisation for instance (Taylor, Ogilvie, & Lavallee, 2006; Wylleman & Lavallee, 2000).

To reconnect to the previous theories and research findings, there appears to be numerous of factors that can influence athletic performance. The selection of Hardy, Jones, and Gould's (1996) model together with Wylleman and Lavallee's (2004) developmental model is considered as beneficial for this study. Relevant definitions, theories, models and research findings have also lead to the objectives for this study, which is to:

- (1) examine factors that contributes to successful athletic performance across different career stages
- (2) examine factors that contributes to poor athletic performance across different career stages.

## **Method**

### **Participants**

10 athletes from 6 different sports took part of the study. The level of the athletes varied from local to international level and included 7 males and 3 females between the age of 18- 48 years. The selection criteria for participants for the study was (1) a minimum of 7 years involvement in sport, (2) being involved in competitive sport, including local to international level and, (3) being involved in either individual sports or team sports.

A following demographic information of the various participants are presented and precised in the table below.

Table 1. *Demographic information of the participants (N=10).*

Athlete	Major sport	Level of sport participation	Gender and age	Number of years involved in major sport
N. 1	Horse riding	Local (reg)	Female 19 years	7 years
N. 2	Power lifting	National (sm)	Male 48 years	15 years
N. 3	Track and field	National (sm)	Female 25 yeras	13 years
N. 4	Hockey	National, Div. 1	Male 20 years	14 years
N. 5	Soccer	National, Div. 1	Famale 26 years	14 years
N. 6	Soccer	National, Div. 1	Male 19 years	10 years
N. 7	Soccer	National, Div. 1	Male 18 years	13 years
N. 8	Soccer	National, Div. 1	Male 19 years	15 years
N. 9	Track and field	International (final)	Male 27 years	12 years
N. 10	Karate	National (sm)	Male 23 years	10 years

### **Instrument**

The semi-structured interview guide "Factors influencing athletic performance across career stages" was used in the study. The interview guide was created based on the two theories that serve as theoretical frameworks for the study. The questions in the interview guide are divided into four parts consisting of (1) background information, (2) athletic career development, (3) athletic performance, and of (4) summary.

The first part of the interview guide was aimed to collect, (1) background information of the participant, for example, major sport, level of sport participation, and years involved in major sport. The second part aimed to collect the, (2) athletic career development. This part contained information of identified career stages divided by the participant. What happened on the stages in sport, and what happened on the stages outside of sport were all included in this part. The third part contained information of the, (3) athletic performance. First, successful competitions (games) during the first stage were aimed to be identified. Then, factors that contributed to successful performances at the first stage were aimed to be identified. Second, poor competitions (games) during the first stage were aimed to be identified. Then, factors that contributed to poor competitions (games) were aimed to be identified by the participant. The same questions were asked on each of the career stages. Finally, the fourth part contained a, (4) summary to collect key words of factors that contributed to successful athletic performance on each of the career stages. Further, the summary contained a collection of key words of factors that contributed to poor athletic performance on each of the career stages. Part two, three, and four also included the four career stages in Wylleman and Lavallee's (2004) developmental model, and allowed numerous of factors to be considered, which further also were captured within the five components in Hardy, Jones, and Gould's (1996) model. The instrument is attached in Appendix.

## **Procedure**

Three participants were asked directly. Two participants were contacted through a phone call. Three participants were contacted through a coach from a soccer club in the south of Sweden and, two participants were asked prior a practice.

The interviews were conducted at different places. The places were established based on agreements and arrangements from athletes and the coach (e.g., dining room, quiet room, school library, cafe, soccer clubhouse, training arena, and trip).

The duration of the interviews varied from 23 minutes to 50 minutes (mean=37,3).

Prior all interviews all informants gave the permission of being recorded. The informants were also permitted and able to ask questions prior, during, and after the interviews, and later after the study. The informants were also informed about the ethical issues and were informed about the free voluntary of participation for the study. Finally, information about an informants' right to drop out at any time was given. The information received from the informants was treated with confidentiality (Maykut & Morehouse, 2003). All interviews were recorded with a dictaphone.

## **Analyses**

The first step included, a transcription of every participants interview. The transcription was then precisely read through. Relevant information from the transcription was marked, and read through 2-3 times again. The marked information was then organized into factors that contributed to successful athletic performance on each of the career stages identified by the participant, in a separate file. The marked information was also organized into factors that contributed to poor athletic performance, in a same separate file.

In the second step, an individual profile was created for each participant. This included an arrangement of the overall factors that contributed to successful and poor athletic performance on each of the stages that were identified. The following ten individual profiles were derived from the interview guide when creating the structure for the individual profile.

The raw data units from participants individual profiles were treated and arranged into groups with similar meanings, and were then inductively and deductively analyzed.

In the third step, two category profiles for each stage were created. One category consisted of factors that contributed to successful athletic performance, and one category consisted of factors that contributed to poor athletic performance. A total of eight category profiles were made (two for each stage) based on the data from 10 participants.

## **Results**

The first objective in the study was to examine factors that contributes to successful athletic performance across different career stages. Further, the objective was to examine factors that contributes to poor athletic performance across different career stages. The results are presented in three parts. The first part presents results of factors that contributes to successful athletic performance on initiation-, development-, mastery- and maintenance stage. The results are presented in figures 1- 4. The second part presents results of factors that contributes to poor athletic performance on initiation-, development-, mastery- and maintenance stage. The results are presented in figures 5- 8. The third part contains a

summary of key words of main factors that contributes to successful, and poor athletic performance across career stages. The results are presented in figure 9.

## Part 1. Factors contributing to successful athletic performance

### Factors contributing to successful athletic performance on the initiation stage

The category of factors that contributes to successful athletic performance on the initiation stage lead to 3 high order themes: supportive significant others and sporting environment, successful development leading to higher self-efficacy, and personal development. These 3 high order themes further lead to 9 low order themes consisting of: supportive family, confident and supportive coach, good athletic environment, good socialization, successful achievements, joy, good learning experiences, athletic ability and, training. According to the participants, the family, coach, athletic environment, and friends played a great role for the development of the athletic performance. One participant clearly expressed that: "parents have always helped". One participant stated that: "my sister has always played soccer so they helped her team and stuff too". According to another participant the coach played an important role. The participant stated that: "He praise you a lot" and suppose to reflect the coach's involment. One participant stated: "my teacher recommended me to start on athletics". The athletic environment also turned out to be a facilitative factor on the initiation stage, and one participant stated that: "there is soccer in the schoolyard, there was soccer on TV, it's soccer everywhere". According to the participants peers also made an great impact on their athletic success during this stage. One participant stated: "trust from your teammates" and reflects the importance of peers as a contributing factor. Successful development leading to higher self-efficacy that formed: successful achievements, joy, and good learning experiences, was stated by a participant in terms of: "during that period I developed a lot, took many medals, got a great development curve". Another participant stated that: "I was promising". According to one participant good learning experiences came out of: "strive to win games", and by another participant in terms of: "I got applauses". One participant stated that: "interest makes you want to develop", and another participant stated: "fun to compete" which indicate the importance of joy during the initiation stage. Further, athletic ability and training also serves as a facilitative factors, and can be exemplified by one participant in terms of: "having a solid foundation".

Raw data units	Low order themes	High order themes	Category (N=10)
Support from parents (3) When there is much sport in the family (3) Have role models in the family to look up to (1)	Supportive family (7)	Supportive significant others and sporting environment (25)	Factors contributing to successful athletic performance on the initiation stage
Get much prise from coach (3) Good coach (1) Class teacher who recommends to start	Confident and supportive coach (7)		

sports (1) Coach knows the athletes strengths (1) Have a coach that follows (1)			
When there is sport everywhere (2) Being able to play much sports in school (2) To live near a soccer field (1) Try other sport activities as well (1)	Good athletic environment (6)		
To be with friends (2) When many of one's friends also are involved in sports (2) Meet new friends (1)	Good socialization (5)		
Have a great development (7) Steady development of school and sports (1) Become better for each practice (1) To score a lot (1)	Successful achievements (10)	Successful development leading to higher self-efficacy (25)	
Enjoy the activity (6) Interest (4)	Joy (10)		
Be able to learn quickly (2) Learn rules fast (1) Learn much (1) Compensate physical weakness with technical skills (1)	Good learning experiences (5)		
Knowing what price one's have to pay (2) Getting high hopes (1) To be technical (1) To be flexible (1) Be fast (1) Positive vision (1) Presistence (1)	Athletic ability (8)	Personal development (11)	

Get much time training (3)	Training (3)		
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Figure 1. Factors contributing to successful athletic performance on the initiation stage (N=10).

### Factors contributing to successful athletic performance on the development stage

The category of factors that contributes to successful athletic performance on the development stage lead to 6 high order themes: team cohesion and performance, perceive mental and physical strengths, training, receive support and having good focus, receive rewards, and joy and satisfying events. These 6 high order themes further lead to 12 low order themes consisting of: the coach, performance and outcome, satisfaction with team and teammates, preparations, confidence, good physic, good training, support by family, friends and school, shared focus, different types of rewards, enjoy the sport, and satisfying activities. According to the participants the 6 previous mentioned high order themes were important contributing factors during the development stage. The participants clearly stated the importance of the coach's role and can be exemplified by one participant who stated: "coach trained me specially and took care of us a lot". And according to another participant: "get coach's confidence" was very important. To further: "receive a lot of encouragement from the coach", and: "get praise and more challenges" was clearly an important contributing factor for the athletic performance by other participants. Further, performance and outcomes was important for the athletic performance for some participants. One participant stated: "you feel it in the air, you keep up with the game and win much ball". Another participant stated: "I played center-back and no one past me through". Teammates also played a big role for many participants. One participant stated: "you feel comfortable in the team", and developed the argument further by claiming that: "we went together to the soccer academy, and trained together five times a week, and then three times in the evening too. We actually became Swedish champions, so we met every day in and out". Various mental strenghts also contributes to athletic performance on the development stage according to the participants. One participant stated: "performance, concentration, communication and self-confidence is what you need on a soccer field". One participant stated that: "I borrowed almost all of the books from the library" and this in order to prepare mentally for the race. Then one participant stated: "attitude is very important". Many participants also claimed that different types of rewards made it possible for them to continue their athletic career in order to succeed. According to one participant the school functioned as a facilitative factor and stated: "the school I went to had a lot of money so they could offer many players scholarship". All of these statements are examples of some of the factors that contributes to successful athletic performance on the development stage.

Raw data units	Low order themes	High order themes	Category (N=10)
Get coach's confidence (6) Getting praised by coach (3) Good coach (2) Having the same coach (2)	The coach (13)	Team cohesion and performance (32)	Factors contributing to successful athletic performance on the development stage

Feelings of playing good (3) Succeed with skills (3) Manage to score (2) Win medals (1) Winning various competitions (1)	Performance and outcome (10)		
To get along with the team (7) Play with international players (1) Meet one's teammates every day (1)	Satisfaction with the team and teammates (9)		
Good preparations (8) Good mental images before games (1) Borrow books about the sport (1)	Preparations (10)	Perceive mental and physical strengths (19)	
Observing role models (2) Maintain dreams of being like professionals (1) Maintaining confidence (1)	Confidence (4)		
Catch up with physics (2) Be fast (1) Have a good timing (1) Have a solid foundation (1)	Good physic (4)		
Receive more intensive training (6) Get more challenges (4) Getting better (3) Getting special training from coach (3) Improve technical skills (1) Have a quick learning ability (1)	Good training (18)	Training (18)	
Much support from family (3)			

Support from various friends (1) Get more professional approach (1) Support from school (1)	Support from family, friends and school (6)	Receive support and having good focus (9)	
Shared focus on school and sports (2) To finish an education (1)	Shared focus (3)		
Get to play with more experienced players (2) Go to a school that has a lot of money (1) Be offered scholarship (1) Be recruited by talent scouts (1) Receive the captain's role (1) Get rewarded by making it to the S-team (1)	Different types of rewards (7)	Receive rewards (7)	
Think it's really fun (2)	Enjoy the sport (2)	Joy and satisfying events (4)	
Team building (2)	Satisfying activities (2)		

*Figure 2.* Factors contributing to successful athletic performance on the development stage (N=10).

### **Factors contributing to successful athletic performance on the mastery stage**

The category of factors that contributes to successful athletic performance on the mastery stage lead to 4 high order themes: athletic ability, satisfying team and athletic success, optimal combination of sport and life outside of sport, and good support network. The 4 high order themes further lead to 6 low order themes consisting of: good psychological skills, good physical skills, team success, individual athletic success, optimal combination of sport and life outside of sport, and good support network. Many participants stated athletic ability in terms of psychological and physical skills. For example, one participant stated: "it's that self-confidence you have". This statement further reflect the athlete's strenght in relation to the performance. Many participants also clearly stated that team success was important in order to be able to feel a satisfaction, which further contributes to successful athletic performance. This satisfaction could be derived from various of factor, such as good team communiation and positive competitions among teammates. For example: "when you do your best to communicate with the older players on the field" reflects how the communication was integrated. Having a successful season with a team could be established through various of factors. For example, one participant stated: "everyone on the team were equal, so it became

more competitive, and so I thought it was more fun, you could measure up to other players, and can work more with your own individual performance and you develop". An optimal combination of sport and life outside of sport also turned out to be a contributing factor that contributes to athletic performance on the mastery stage. One participant stated: "I took a little break from the sport and started on some other sports when I moved". One participant even claimed that being able to take a little break from the sport was one successful contributing factor for a further engagement in sport. The participant stated: "I think it's good to have that kind of disruption in life, where you do something else outside training for a while". Finally, good support network contributes to successful athletic performance on the mastery stage. Having teammates that are supportive can be exemplified by one participant, who stated: "we help and support each other on training". Further one participant explained that: "I received much assistance to be driven to many places, and when I ended up in the hospital, the club paid that".

Raw data units	Low order themes	High order themes	Category (N=9)
Confidence (7) Goal-setting (7) Preparations and routines (3) Develop much mentally (2) Positive pressure (2)	Good psychological skills (21)	Athletic ability (27)	Factors contributing to successful athletic performance on the mastery stage
Good physique (3) Good technique (1) Timing (1) Speed (1)	Good physical skills (6)		
Good team communication (8) Positive competition among teammates (3) Team confidence (2) Good feeling with coaches and teammates (2) Successful season with a team (1) Team wins (1)	Team success (17)	Satisfying team and athletic success (20)	
Be a big part of team effort (1) Get chances (1) Participate in international tournaments (1)	Individual athletic success (3)		
Positive events in life that rubs off on sport (3) Short break from sport (2)	Optimal combination of sport and life outside of sport (10)	Optimal combination of sport and life outside of sport (10)	

Entering the right school education (2) Various contacts within and outside sport (2) Working as a consultant within the club (2)			
Support from teammates (3) Much support from coach (3) Agent (1) Parents that care a lot (1) Receive support from the club (1)	Good support network (9)	Good support network (9)	

Figure 3. Factors contributing to successful athletic performance on the mastery stage (N=9).

### Factors contributing to successful athletic performance on the maintenance stage

The category of factors that contributes to successful athletic performance on the maintenance stage lead to 3 high order themes: personal development, social support, and good team communication. The 3 high order themes further lead to 5 low order themes and are: athletic development, life outside of sport, education, receive support, and good communication. On this stage the importance of managing handling performance anxiety, work with various of goal-settings, and having clear goals, are some examples of the factors that turned out to contribute to successful athletic performance. Having other interest outside of sport, as well as getting in to a good education, and continuously receive support from various of sources, and having good team communication within the team, is further important. These factors turns out to have a good impact on the athletic performance on the maintenance stage according to the participants. For example, one participant stated: "I have become more mature on the field. I dare to show what I can do, prove that I'm not 18 years on the field, but off the field I'm still 18". Another participant stated: "I work a lot with the coach and try to work harder and get better and better". According to another participant, goals are very important. The participant stated: "I have very different goals now. I want to show that I can do better than what I could do before, before I got all injuries". Beside the athletic development, life outside sport was important. One participant stated: "I have felt positive in recent years as I have worked. It has been a blast and it rubs off on sport". Another participant stated: "support is important".

Raw data units	Low order themes	High order themes	Category (N=5)
Manage handling performance anxiety (2) Work with one's goals (2) Have clear goals (1)	Athletic development (6)	Personal development (13)	Factors contributing to successful athletic performance on the maintenance stage

Good retirement planning in advance (1)			
Have other interests (2) Fun events happening outside of sport (1) Other sport interests (1) Become active as a referee in the sport (1)	Life outside of sport (5)		
Get into a good education on a higher level (2)	Education (2)		
From coach (1) Support from teammates (1) Support from girlfriend (1)	Receive support (3)	Social support (3)	
Good communication within the club (1) More information (1)	Good communication (2)	Good team communication (2)	

*Figure 4.* Factors contributing to successful athletic performance on the maintenance stage (N=5).

## **Part 2. Factors contributing to poor athletic performance**

### **Factors contributing to poor athletic performance on the initiation stage**

The category of factors that contributes to poor athletic performance on the initiation stage lead to 4 high order themes: mental and physical weakness, lack of satisfaction, lack of family support, and other perceived barriers. The 4 high order themes further lead to 6 low order themes which are: perceive psychological weakness, perceive physical weakness, lack of joy, perceive poor athletic ability, lack of family support, and other perceived barriers.

The participants made it clear that some psychological and physical factors were associated with poor athletic performance on the initiation stage. According to one participant stress was related to poor athletic performance, and stated: "to feel the pressure that you have to be good is hard". Other participants thought that early physical weakness was directly associated with poor athletic performance. This can be exemplified by the participant who stated: "I had a really bad coordination". Lack of satisfaction, by lack of joy, was another contributing factor on the initiation stage. One participant stated: "sometimes I felt that I did not develop. I was standing on the same spot, and then I felt that it's not fun anymore". Perceive poor athletic ability also turned out to be associated with poor athletic performance by some participants. According to one participant the perception of feeling bad was based on the following assumption: "at the beginning I could not show what I could do because there was so much more I had to learn". Further, lack of family support contributes to poor athletic performance during the initiation stage. One participant stated: "at first my parents did not wanted me to

continue playing. They were afraid that I would wrap my head away, but many years of nagging from my side eventually made my parents surrender”. Other perceived barriers during this stage were, to ride a poor horse, live far away from training, and poor performance in school. One participant stated: ”some horses you have to beat at to make them listen to you”.

Raw data units	Low order themes	High order themes	Category (N=10)
Not have a huge confidence from the start (1) Very high standards for oneself (1) Compete in everything in life (1) Pressure (1) Stress (1) Have a lot of self-criticism (1)	Perceive psychological weakness (6)	Mental and physical weakness (12)	Factors contributing to poor athletic performance on the initiation stage
Be weak physically (3) Have genetic vulnerability (1) Be natural small (1) Have poor coordination (1)	Perceive physical weakness (6)		
Not think it's fun (3) Be punished for a less good performance (1) Not having the same friend in sport as outside of sport (1)	Lack of joy (5)	Lack of satisfaction (9)	
Feel that you are bad (3) If you can't demonstrate your skills in the beginning (1)	Perceive poor athletic ability (4)		

Family who misses much of one's development (2) When parents don't want any athletic involvement in the family (1) When family members says that a performance was crappy (1)	Lack of family support (4)	Lack of family support (4)	
Ride a poor horse (1) To live far away from training (1) Poor performance in school (1)	Other perceived barriers (3)	Other perceived barriers (3)	

Figure 5. Factors contributing to poor athletic performance on the initiation stage (N=10).

### Factors contributing to poor athletic performance on the development stage

The category of factors that contributes to poor athletic performance on the development stage lead to 6 high order themes: external and internal stressors, perceived mental weakness, lack of support, lack of resources, lack of development, and lack of joy. The 6 high order themes further lead to 9 low order themes which are: perceive stress, fatigue, lack of concentration, negative thinking, goal setting, lack of support, lack of resources, lack of development, and lack of joy. Perceive stress can be exemplified by some participants by the following quotations: "when you make a mistake and the coach sees it. So you start to think about that mistake and you do not focus". And: "when I came back from an injury, and had to show off". And by another participant in terms of: "I started to feel that there is such a pressure on me, that I have to be good". Fatigue also contributes to poor athletic performance on the development stage. According to one participant, to be constantly tired, was associated with fatigue. The participant stated: "you feel worn in the body and your mood is bad, and so you go to school and are tired there as well". Another factor as perceive mental weakness by being involved in negative thinking was associated with poor athletic performance. This participant stated: "I think that I do not want to tear down a barrier". Other factors such as lack of support also contributes to poor athletic performance. The coach's role was important, and not receive any support from the coach can be exemplified by on participant who stated: "you do not get the push from the coach". Some participants perceived some lack of resources linked to their athletic performance. Live far away from training, not getting in to the sporting school, and lack of money to participate in the sport are some examples of factors. One participant stated: "those who usually go far in the sport are often those who have parents who have a lot of money and who have their own horse". Other factors which turned out to contribute to poor athletic performance on the development stage were factors such as, lack of development, and lack of joy.

Raw data units	Low order themes	High order themes	Category (N=10)
Experience too much pressure from oneself and coach (8)			

Injuries (4) Bad environmental conditions (3) Anxiety (2) Depression (2) Poor preparations (2) Rush back from injury (1) Performance anxiety (1)	Perceive stress (23)	External and internal stressors (23)	Factors contributing to poor athletic performance on the development stage
Get to much training (2) A worn body feeling (2) Bad mood (1) Being constantly tired (1)	Fatigue (6)	Perceived mental weakness (14)	
When losing focus (3) Be too concentrated (1) Being less concentrated (1)	Lack of concentration (5)		
Thinking of not wanting to fail (1) Start failing to believe (1)	Negative thinking (2)		
Set to high goals (1)	Goal setting (1)		
Lack of support by coach (3) Poor support from family (3) Not getting much support from school (1) Poor support from boyfriend (1) Not getting any help from one's teammates (1) Fights between coach and parents (1)	Lack of support (10)	Lack of support (10)	
Live far away from training (1) Not get into the sporting school (1) Lack of money to participate in the sport (2) Not having	Lack of resources (5)	Lack of resources (5)	

opportunities to attend major competitions (1)			
Lack of individual development (2)	Lack of development (4)	Lack of development (5)	
Lack of team challenges (1)			
Poor individual challenges (1)			
Not think it's fun (2)	Lack of joy (2)	Lack of joy (2)	

Figure 6. Factors contributing to poor athletic performance on the development stage (N=10).

### Factors contributing to poor athletic performance on the mastery stage

The category of factors that contributes to poor athletic performance on the mastery stage lead to 3 high order themes: poor perceived athletic ability, less supportive team and poor coaching, and poor balance of life outside of sport and sport. The 3 high order themes further lead to 5 low order themes which are: perceive poor psychological state, perceive poor physical condition, poor team conditions, poor coach, and poor balance of life outside of sport and sport. For example, poor perceived athletic ability could be stated in terms of poor perceived psychological state, and poor perceived physical condition. According to one participant poor perceived psychological state were strongly related to the following quotation: "the concentration, nothing was there, lots of nerves I think, not having practiced soccer in a whole year". Perceive poor physical conditions can clearly be exemplified by one participant who stated: "1, 2, 3, 4 there are four major injuries, and you can imagine that it took a year after every injury before you're back". Other factors that turned out to have major influence on the participants athletic performance on the mastery stage was a less supportive team, and poor coaching, by poor team conditions for instance. Some participants considered this factor in terms of finding it difficult to get a long with the team. One participant explained that this had to do with the fact that changing from youth to junior team is hard, and could be stated by the following quotation: "there are major differences with everything. Other coaches and trainings. And it could distinguish 2-3 years between the players as well. I played with older players, and it could sometimes be tough to beat through". The same participant further explained: "then a new coach started, and I became a high priority. And then it started to go well for me for a while again. But I didn't like these teammates". Other factors such as poor balance of life outside of sport and sport, were also related to poor athletic performance. One participant stated: "the contract with the club is going out now so I don't have any contract extension and they will provide information on how they want to do. But I do not know what to do now. I have finished school, so I don't have a job, so I'm in a difficult situation now".

Raw data units	Low order themes	High order themes	Category (N=9)
Reduced motivation (5)	Perceive poor psychological state (13)	Poor perceived athletic ability (22)	
Decreased confidence (5)			
Wrong tension level (2)			

Performance anxiety (1)			Factors contributing to poor athletic performance on the mastery stage
Poor physique (4) Injuries (4) Not be in shape (1)	Perceive poor physical condition (9)		
Find it difficult to get a long with the team (4) Groupings in a team (2) Pressure to leave and change club (2) Having problems with the club (1) Bad adjustment from changing from youth to junior team (1) No assistance from a club (1) Not have a contract extension for the club (1)	Poor team conditions (12)	Less supportive team and poor coaching (19)	
Not getting coach's confidence (3) Be replaced by the coach (2) Not getting support from coach (1)	Poor coach (7)		
Time pressure in life (2) Poor balance of life and sport (2) Not keep up with the sociability (1) Adjustment difficulties when moving to a new city (1)	Poor balance of life outside of sport and sport (6)	Poor balance of life outside of sport and sport (6)	

Figure 7. Factors contributing to poor athletic performance on the mastery stage (N=9).

### Factors contributing to poor athletic performance on the maintenance stage

The category of factors that contributes to poor athletic performance on the maintenance stage lead to 1 high order theme: perceive barriers in and outside sport. The high order theme lead to 2 low order themes which are: sport related barriers, and need to do other things in life. To perceive barriers, both in and outside of sport, is a factor associated with poor athletic performance on the maintenance stage, according to the participants. Barriers that turns out to be sport related are factors such as: not being motivated in the sport anymore, not get much

playing time from coach, and bad behaviour of some teammates. One participant stated: "one day teammates can greet on you, and the next day, they will scream at you". Other barriers such as need to do other things in life also relates to poor athletic performance. One participant stated: "other stuff in life become obstacles. You want to exercise but do not have the time". Another participant stated that time pressure in life had to do with factors such as: "job and education, bad social circles, and that kind of stuff".

Raw data units	Low order themes	High order themes	Category (N=4)
Not be motivated in the sport anymore (2) Not get much playing time from coach (1) Bad behaviour of some teammates (1)	Sport related barriers (4)	Perceive barriers in and outside sport (8)	Factors contributing to poor athletic performance on the maintenance stage
Find other things in life more interesting (2) More time that has to be sacrificed to school (1) Time pressure in life (1)	Need to do other things in life (4)		

*Figure 8.* Factors contributing to poor athletic performance on the maintenance stage (N=4).

### Part 3. Summary of key words of main factors contributing to successful and poor athletic performance across career stages

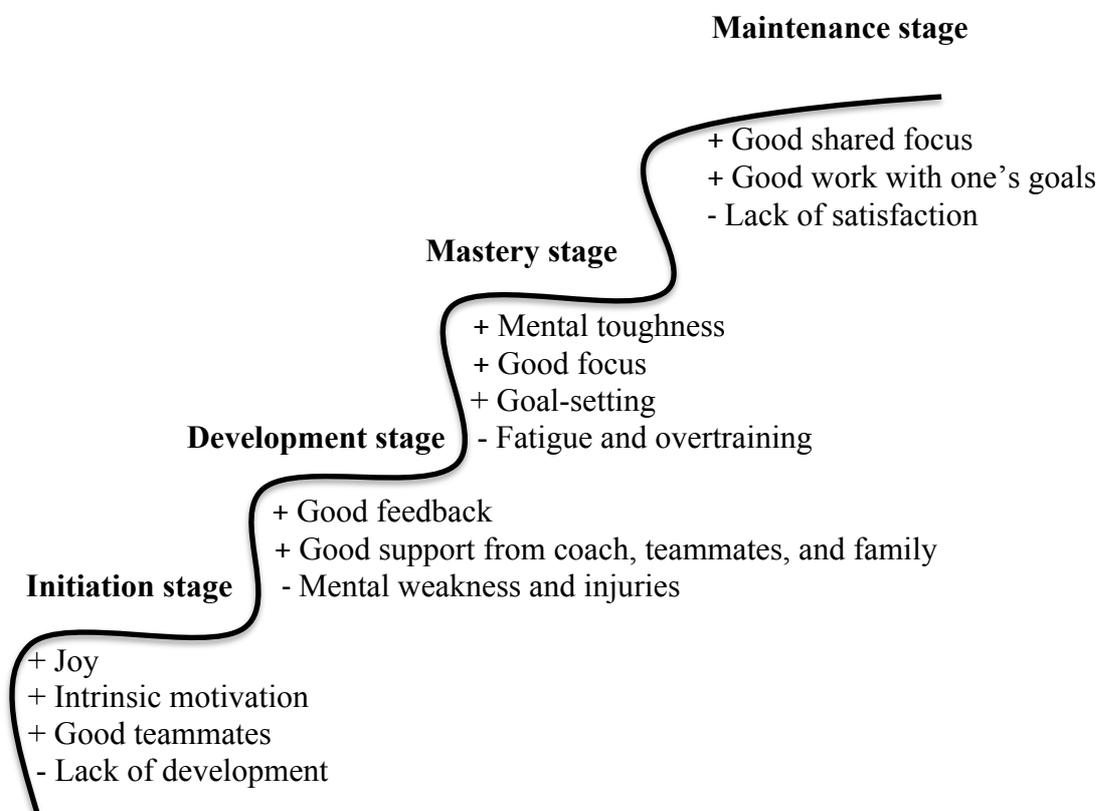


Figure 9. Summary of key words of main factors contributing to successful, and poor athletic performance across career stages (N=10).

## Discussion

### Summary of the results

The factors as: supportive significant others and sporting environment, successful development leading to higher self-efficacy, personal development, mental and physical weakness, lack of satisfaction, lack of family support, and other perceived barriers are factors that contributes to successful athletic performance on the initiation stage. Factors as: mental and physical weakness, lack of satisfaction, lack of family support, and other perceived barriers, turns out to be the factors contributing to poor athletic performance. Factors contributing to successful athletic performance on the initiation stage are further reflected in terms of: supportive family, confident and supportive coach, good athletic environment, good socialization, successful achievements, joy, good learning experiences, athletic ability, and training. Factors contributing to poor athletic performance are further reflected in terms of: perceive psychological weakness, perceive physical weakness, lack of joy, perceive poor athletic ability, lack of family support, and other perceived barriers.

Factors contributing to successful athletic performance on the development stage are: team cohesion and performance, perceive mental and physical strengths, training, receive support and having good focus, receive rewards, and joy and satisfying events. Factors contributing to poor athletic performance are: external and internal stressors, perceived mental weakness, lack of support, lack of resources, lack of development, and lack of joy. These factors can, as the previous factors on the initiation stage, be reflected in low order themes in terms of: the coach, performance and outcome, satisfaction with team and teammates, preparations, confidence, good physic, good training, support by family, friends and school, shared focus, different types of rewards, enjoy the sport, and satisfying activities. These factors further reflects the factors contributing to successful athletic performance. Factors that contributes to poor athletic performance on development stage, in low order themes, are reflected in terms of: perceive stress, fatigue, lack of concentration, negative thinking, goal setting, lack of support, lack of resources, lack of development, and lack of joy.

Continuously, factors contributing to successful athletic performance on the mastery stage are: athletic ability, satisfying team and athletic success, optimal combination of sport and life outside of sport, and good support network. These can further be reflected through low order themes in terms of: good psychological skills, good physical skills, team success, individual athletic success, life outside of sport, and good support network. Factors contributing to poor athletic performance are: poor perceived athletic ability, less supportive team and poor coaching, and poor balance of life outside of sport and sport. These are further reflected in terms of: perceive poor psychological state, perceive poor physical condition, poor team conditions, poor coach, and poor balance of life outside of sport and sport. Finally, factors contributing to successful athletic performance on the maintenance stage are: personal development, social support and good team communication. These factors are further reflected through low order themes in terms of: athletic development, life outside of sport, education, receive support, and good communication. Factors contributing to poor athletic performance are: perceive barriers in and outside sport. These factors are reflected in terms of: sport related barriers, and need to do other things in life.

The results of factors contributing to both successful and poor athletic performance turned out to appear across different career stages, such as family support, the coach, teammates, athletic ability, successful and poor athletic experiences, and athletic achievements. The factors also appear to contribute to successful and poor athletic performance. For example, the family turned out to influence and impact the participants perceptions of their early athletic ability during initiation stage. On the development stage the influence of the family turned out to remain but also appear to be influenced by peers and the coach regarding the participants perception of their athletic performance. Different support network also turned out to impact and remain as an important contributing factors during the whole athletic journey. These influences further appear to determine the degree to which extend the participants could be able to adopt different psychological skills and coping with adversity strategies to manage different sport demands. The results further also revealed a pattern of appearance of factors contributing to successful and poor athletic performance across career stages. The pattern revealed that similar factors could contribute to both successful and poor athletic performance. For example, the participants perceived athletic ability, such as perceived psychological skills, and physical ability, could both contribute to successful and poor athletic performance on the mastery stage. On the development stage on the other hand, factors such as team cohesion strongly contributed to the participants successful athletic performance, whereas factors such as perceived mental weakness contributed to poor athletic performance on the same stage. Factors that turned out to contribute to successful athletic performance,

which did not appear to contribute to poor athletic performance on the maintenance stage was social support.

## **Results relevance to theoretical frameworks and previous research**

### **Initiation stage**

The authors (Bloom, 1985; Salmela, 1994; Wylleman & Lavallee, 2004; Coté, 1999; Stambulova, 1994) agree that athletes during the initiation stage are engaged in sports for fun. Parents and coaches provide guidance and support for young athletes, helping them to test various of sport disciplines and to find one or two that are the most suitable to their abilities and interests, which also is supported by a study (Wylleman, De Knop, & Cecic-Erpic, 2007) concerning parents role on athletes sport involvement. Coté (1999) together with Partridge, Brustad and Stellino (2008) also support the notion that parents encourage young athletes to try different sports for the enjoyment and for opportunities to develop basic motor skills. Young athletes further learn sport rules and might participate in their first competition, but do it more for fun than for achieving specific sport goals during this stage. Higher parental encouragement is further associated with greater perceived physical competence.

According to Wylleman and Lavallee's (2004) developmental model, and Duda and Balaguer (2007) parents, siblings and peers also play an important role during the initiation stage. They provide support to facilitate athletes further engagement in sport. Parents influence during this period of life (childhood) has found to have a greater and more lasting effect on children's sport involvement than in other period of development. Parents can influence their athletes perception of their athletic ability and sport involvement through their own beliefs and values. This by providing immediate and specific feedback in and outside the athletic arena (Wylleman, De Knop, Verdet, & Cecic-Erpic, 2007). Partridge, Brustad, and Stellino (2008) further state that parents play a fundamental role in providing achievement experiences for young athletes as well as interpreting for them the outcomes of those experiences. Parents perform these tasks in relation to their own belief system, and these belief systems are further reflected by their expectancies, values, and gender-related beliefs. So athletes belief system is shaped through a combination of experiences that parents have provided them with, and through the feedback the athletes have received from their parents. This is where the study regarding the parent-created motivational climate (White, 2007) is relevant concerning athletes fundamental attributes in Hardy, Jones, and Gould's (1996) model. According to the results on the initiation stage in this study, the participants stated the family, coach, athletic environment, and friends as important factors contributing to their successful athletic performance. This was reflected through the athletes supportive family, confident and supportive coach, good athletic environment, good socialization, successful achievements, joy, good learning experiences, athletic ability, and training. These results show relevance to previous research findings in terms of commitment and social support. For athletes to be able to demonstrate and hold an task oriented motivational disposition, a supportive family and coach serve as some critical facilitative factors. This can further be reflected by the belief that hard work, development of skills, and cooperation with other teammates leads to success, which was demonstrated by some participants. These fundamental beliefs that appeared in the study to some degree relates to the participants further perceived good socialization, successful achievements, joy, good learning experiences, athletic ability, and training. These results can be supported by the participants commitment to sport by their motives, as in playing the sport for the inner pride and love of the game. These motives are further supposed to facilitate athletes effort and learning, where the probability of avoiding practice decreases

(Duda & Balaguer, 2007; Roberts, Darren, Treasure, & Conroy, 2007; Vallerand, 2007; Vealey, 1988). Some participants also stated their siblings role as a contributing factor to their successful athletic performance.

In opposite to the factors that turned out to contribute to successful athletic performance, the factors contributing to poor athletic performance turned out to be similar but in different order. The factors were perceived psychological weakness, perceived physical weakness, lack of joy, perceived poor athletic ability, lack of family support, and other perceived barriers. These results turned out to show a tendency in appearance in relation to a lack of appearance of the factors contributing to successful athletic performance on the initiation stage. Through the participants' experiences, it's relevant to see some relevant immediate and specific feedback, both in and outside the athletic arena, that could have been provided by their parents. For example, one participant stated: "my dad could many times after I've played games say: Lisa, that was really bad". This is where the study regarding athletes' perception of a (2) worry-conducive climate, created by their parents, which is one of the three existing subscales in the PIMCQ-2 measurement, which was used in a study (White, 2007) is relevant. It's relevant to the results regarding the participants' perceived psychological weakness, physical weakness, lack of joy, perceived poor athletic ability, and lack of family support, since their parents turned out to be a part of their climate in sport. According to the results concerning the participants' perceived psychological and physical weakness, the participants may also have been involved in different types of goal perspectives. Since process and performance goals lead to successful outcome goals, and leads to controllable thoughts and actions related performance executions (Behncke, 2004; Burton & Weiss, 2008; Chapman & Mahoney, 2004; Gallucci, 2008; Gould, 2006; Hardy, Jones, & Gould, 1996; Locke & Latham, 1985; Vealey, 1988; Vealey, 2005; Weinberg & Gould, 2007) it's possible that some participants in this study focused on outcome goals prior the performance execution, rather than process and performance goals, since they perceived psychological and physical weakness. It may also be possible that some participants' perceived psychological and physical weakness was derived from their sensitivity to the psychosocial risk factors, as in genetic vulnerability. Further when it comes to parents' expectations, these expectations are according to Stambulova (2004) specifically relevant when athletes start to compete. Perceived parental demands and athletes' own perception of these demands play a critical role in making the initiation transition into development stage. This is also supported by the study regarding those athletes who made the successful within career transition from lower to higher phase, where these athletes also turned out to have higher parental support (Alfermann & Stambulova, 2007). Peers' role also turns out to play an important role for the athletes' psychosocial development according to Wylleman and Lavallee's (2004) developmental model.

### **Development stage**

During the development stage the authors (Bloom, 1985; Coté, 1999; Salmela, 1994; Stambulova, 1994; Wylleman, Lavallee, & Alfermann, 1999; Wylleman & Lavallee, 2000; Wylleman & Lavallee, 2004) agree that athletes narrow their focus to one or two sport disciplines that they are hooked by and committed to. Their athletic identities become stronger. Coaches guide athletes to set sport-related goals, to practice in a more structured and deliberated ways, and to take part regularly in competitions. For athletes themselves their sport becomes a sphere of education where they still have a lot of fun, but the focus is on learning sport-specific skills, increasing physical fitness level, and demonstrating learned competencies in competitions. Practice and competitions take more time and energy than in the initiation stage. In this stage it also becomes more difficult to combine sport with studies and other activities where the first sacrifice has to be made to guarantee progress in sport.

Since the requirements increase during this stage athletes need to adopt a corresponding discipline in order to be able to combine different activities. These activities can as the authors (Bloom, 1985; Coté, 1999; Salmela, 1994; Stambulova, 1994; Wylleman, Lavalée, & Alfermann, 1999; Wylleman & Lavalée, 2000; Wylleman & Lavalée, 2004) claim, include combining sport with studies and other activities such as social arrangements. To adopt a corresponding discipline can mean a necessary sacrifice of one area in life in order to devote more time to sport, and at the same time devote as much time that is required to education (Holt & Dunn, 2004).

The results of factors that turned out to contribute to the participants successful athletic performance on development stage included performance and outcome. According to the results, some participants experienced feelings of playing good. Some participants also succeeded with their skills, and also reported successful outcomes, as in manage to score. According to these results, the authors statements (Bloom, 1985; Coté, 1999; Salmela, 1994; Stambulova, 1994; Wylleman, Lavalée, & Alfermann, 1999; Wylleman & Lavalée, 2000; Wylleman & Lavalée, 2004) regarding the requirements for this stage, together with other studies made on the explored required aspects as discipline in and outside of sport (Holt & Dunn, 2004; Vealey, 1988; Wylleman & Lavalée, 2004), it's possible to argue that the participants sacrificed some valued elements, showed a conforming dedication, as in personal responsibility, and obeyed others such as their coaches and teachers. A sacrifice of these valued elements further determines the degree of athletes production (Holt & Dunn, 2004; Vealey, 1988; Wylleman & Lavalée, 2004) which also was visible in this study, since some participants reported successful performances and outcomes. The results regarding the participants satisfaction with the team and teammates together with the participants perceived mental and physical strengths can be linked to the study regarding young athletes perception of a motivational climate created by significant others (Duda & Balaguer, 2007). According to the results using a PIMCQ-2 measurement together with a motivational climate in sport questionnaire-2 (PMCSQ-2), athletes perceived task involving climate was perceived to be created by coaches and parents, where the athletes further also adopted a task – oriented goal perspective. Regarding the results of the participants perceived mental and physical strengths and satisfaction with the team and teammates, in this study, there may be a possible view that the participants also experienced, and perceived a task oriented motivational climate. According to the participants, being able to get a long with one's team also turned out to be an important factor to feel a satisfaction with one's team and teammates. This climate could further have been created by the participants coach and parents, since some participants also reported that they received much support from their families and received the coach's confidence. Participants received support can further also be supported by the study, by the quality of the relationship in the athletic triangle perceived by 13-18 year old high level competitors (Wylleman, De Knop, Verdet, & Cecic-Erpic, 2007). In this study the athletes expressed a clear need for emotional support from their parents, which these athletes also felt they received. To receive this kind of support is further an important contributing factor for athletes continued progress in sport, which also was expressed by the participants in this study. Social support could further also have been provided for the participants in terms of emotional and informational support concerning the activity as team building, which also was a factor contributing to successful athletic performance.

Factors contributing to poor athletic performance appeared to be: external and internal stressors, perceive mental weakness, lack of support, lack of resources, lack of development, and lack of joy. Some participant reported to experience too much pressure from their coach, but from them selves as well. Poor preparations also turned out to contribute to some participants poor athletic performance. According to the study regarding the discipline aspect

(Holt & Dunn, 2004; Vealey, 1988; Wylleman & Lavallee, 2004), it may be possible to argue that the discipline aspect was considered as too high, or considered as too low. For example, it may be possible that some participants did not make the necessary sacrifices of their valued elements, as social activities, which in turn could have led to some participants experiencing fatigue. It may also be possible that some participants were too demanding and sacrificed too much of the time to their sports involvement and forgot about other valued elements of their lives. As expressed by Holt and Dunn (2004) and Wylleman and Lavallee (2004), a balanced discipline remains as an important factor in order to progress in sport. Other factors that turned out to contribute to poor athletic performance were participants' perceived lack of support by coach, and poor support from family. In this case, it may further be possible that the lack of support by coach, and poor support from family was derived from the participants' perception of an ego-involving climate. According to Duda and Balaguer (2007) a success without effort climate, which in a study turned out to be created by fathers, and a worry conducive climate created by both parents, support the fact that athletes in such cases also reported to adopt ego-oriented perspectives, which also turned out to correspond to athletes' perceptions of an ego-involving climate. Emotional support is still reported to remain as an important contributing factor for athletic performance during the development stage (Wylleman, De Knop, Verdet, & Cecic-Erpic, 2007).

### **Mastery stage**

During this stage athletes set higher performance goals, have an extensive amount of deliberate practice, subordinate their lifestyle to sport, whereas coaches turn into mentors or advisors and parents play a lesser role (Bloom, 1985; Salmela, 1994; Wylleman & Lavallee, 2004; Coté, 1999; Stambulova, 1994). These statements also turned out to be reflected in this study by the participants' persistence for individual athletic success.

The participants' good psychological skills, as in athletic ability, is relevant to the previous research findings (White, 2007) concerning the participants' psychosocial responses, and how parental influences contributed to the participants' good perceived competence. Intrinsic motivation and enjoyment of physical activity also turns out to be a result derived from the support from parents, by not pressuring the child to perform, and by giving lots of encouragement for performance success (White, 2007). This study also supports the participants' individual athletic success, since some participants in this study reported their athletic ability, as a contributing factor, to their successful athletic performance. Some participants' good physical skills can further also be supported by relevant research findings (White, 2007). A possible explanation to the participants' good physical skills can be that they received emotional support from their parents who did not pressure them to perform. For example, the participants' successful individual athletic success, could be a contributing factor of the emotional support received from their parents. Since emotional support is an important prediction in making the successful athletic career transition (Wylleman, De Knop, Verdet, & Cecic-Erpic, 2007) there also may be a possibility that the participants, in this study, also received this type of support. Bloom (1985) and Wylleman, De Knop, Verdet, and Cecic-Erpic (2007) also claims that parents are less involved during this stage, but athletes' support system, consisting of the family, is reported to remain as an emotional refuge from the stress of competition. So emotional support and love remains high even parents are less involved on the mastery stage. Social support in terms of tangible support, such as financial support, also serves as an important resource of coping with the transition from junior to senior level. The parental involvement as in different types of social support in this study can also be linked to the participants' statements of; effort in combining athletic training with academic pursuits in higher education, and positive events in life that further contribute to optimal combination of sport and life outside of sport. The social support aspect continues to be relevant on the

mastery stage. For instance, some participants stated team success as a contributing factor to their successful athletic performance. The factor of team success was reflected through good team communication, positive competition among teammates, and good feeling with coaches and teammates. According to these factors there may also be a strong connection between the social support aspect, as in emotional and informational support, which further may have been well interpreted and considered as high among and within the participants sport groups and teams. Another view to consider is the good feeling with coaches and teammates factor, in the team success theme, regarding the aspect of discipline (Holt & Dunn, 2004). Since the ability to show a corresponding discipline serve as an important aspect for production, the discipline aspect becomes interesting to consider. The aspect specially becomes interesting to consider in relation to the factor of a successful season with the team throughout a season, where there may be a strong link between the participants willingness to obey their coach (coaches), and their production. The discipline aspect could in turn have lead to a stronger ability to overcome contextual obstacles, where the participants also better could use positive productive coping strategies and responses (Hardy, Jones, & Gould, 1996; Holt & Dunn, 2004; Tenenbaum, 2004; Vealey, 2005; Vealey, 2007) to manage different demands, or the pressure from the environment. And further by adopt active positive responses, which further may have lead to the participants confidence to thrive on pressure. Therefore the resilience aspect (Holt & Dunn, 2004) also becomes relevant to consider in relation to the participants satisfying team and athletic success on this stage. One example to highlight the importance of the resilience aspect is the quotation from one participant who stated: " When you do your best to communicate with the older players on the field". This example reflect one of the positive responses that may have been derived as a result from the discipline and resilience aspect.

Some of the factors which lead to the participants poor athletic performance were poor perceived psychological state, and poor perceived physical condition. The use of coping with adversity strategies, as in resilience is important at this level (Hardy, Jones, & Gould, 1996; Holt & Dunn, 2004), and factors as poor team conditions, poor coach, and poor balance of life outside of sport and sport, were other factors, which lead to poor athletic performance. Taken these factors into consideration, it may be possible to argue that the factors, as performance anxiety, decreased motivation, and wrong tension level, of the participants perceived poor psychological state, was a result derived from the pressure they perceived from the environment. It could also have been a result derived from a lack of either emotional or informational support among teammates and parents. This could further have explained the participants perception of their low perceived competence, and intrinsic motivation (White, 2007) regarding the participants poor perceived athletic ability. The participants pressure, such as the pressure to leave and change the club, having problems with the club, difficulties to get along with the team, and bad adjustments from changing from youth to junior team, could have been derived from the participants lack of the ability to manage different coping with adversity strategies. For instance, self-talk as in emotion-focused coping strategy, and monitor one's behaviour as in problem-focused coping strategy (Vealey, 2005), or different task-related strategies (breathing control, relaxation and imagery) (Hardy, Jones, & Gould, 1996; Tenenbaum, 2004; Vealey, 2007). Regarding some participants injuries and their perceived poor physical condition, the use of different task-related strategies as breathing control, relaxation and imagery (Tenenbaum, 2004; Vealey, 2007) would all have been useful to adopt before, during and after such conditions. In such cases the probability of the feelings of playing good would also have been araised where the concentration would have been on the game (Hardy, Oliver, & Tod, 2008; Johnson, 1999; Moran, 1996; Nideffer & Sagal, 1996; Roberts, Treasure, & Conroy, 2007). However, these factors are also important to take into

consideration to the participants poor balance of life outside of sport and sport, which could have been some of the contributing factors to the overall perceived pressure on the mastery stage. To maintain a balanced life outside of sport and sport is also an important factor according to Wylleman and Lavallee's (2004) developmental model.

### **Maintenance stage**

The final stage in this study according to Stambulova (1996) is the maintenance years, which is a stage between the mastery and the discontinuation stage in Bloom's (1985), Salmela's (1994) model, and Wylleman and Lavallee's (2004) developmental model, that corresponds to recreational years in Coté's (1999) model. The stage between the mastery and the discontinuation stage, is where the athlete tries to maintain sport results on a high enough level, and starts to prepare for termination. In the discontinuation stage, on the other hand, in Wylleman and Lavallee's (2004) developmental model, is where the athlete stops to participate in competition on the previous achieved level. The athlete may continue training or take part of sport participation, but for recreational purposes. This is because the new focus here is on starting a new professional career or studies, and develop the identity related to the new social role. Former elite athletes refocus their life and perceive sport as a part of the life history or as a recreational hobby. Horn and Horn (2007) also state that coaches, teachers, teammates and peers still may play a significant role. But for most individuals, the family exerts the longest and strongest impact on their development.

The participants reported personal development as a contributing factor for successful athletic performance on the maintenance stage. The personal development factor included the participants athletic development, as in managing handling performance anxiety, working with one's goals, having clear goals, as well as a good retirement planning in advance. The personal development factor also included the participants life outside of sport, as in having other interest, fun events happening outside of sport, and other sport interest. Participants statements of the social support from the coach, teammates and girlfriend, also turned out to be considered as a remaining important factor for a successful athletic performance on the maintenance stage. Good communication within the club was also considered as a important contributing factor. In opposite to the factors leading to successful athletic performance, factors as the need to do other things in life, and sport related barriers, were the perceived barriers in and outside of sport, on the maintenance stage. Time pressure in life, which in turn could have an impact on the athletic performance, can also be a contributing factor of possible difficulties adopting different coping with adversity strategies. Athletes can also use various strategies such as, emotion-focused, problem-focused, cognitive restructuring, and avoidance strategies (Hardy, Jones, & Gould, 1996; Lazarus & Folkman, 1984; Tenenbaum, 2004). Lazarus and Folkman (1984) further explain that coping may only be regarded as coping if the individual knowingly collect power to use any kind of strategy to deal with one or more stressful situations, as not getting much playing time from the coach for instance. Lundqvist, Sandin, and Hassmén (2009) further claims that the outcome of a chosen coping strategy is thus positive if the athlete will successfully match the coping strategy with the situation-specific stressor, and further be able to successfully manage the perceived internal and external requirement.

According to the results on the maintenance stage, it's possible to argue that the participants who stated sport related barriers, as not be motivated in sport, not get much playing time from coach, and bad behaviours of some teammates, also perceived more intrateam conflict within and among their teammates (Ntoumanis, Vazou, & Duda, 2007). The intrateam dimension could have been experienced since some participants stated; bad behaviours of some teammates, which in turn can serve as an indicator of less moral reasoning and lower moral

functioning of possible perceptions of a ego-involving climate (Ntoumanis, Vazou, & Duda, 2007). The coach still also remains as a important mediator for athletes perception of a task, or ego-involving climate. A coach that emphasize effort and athletes personal improvement, further contributes to all players feeling that they have an important role on the team or sport group, and fosters cooperation among team members (Duda & Balaguer, 2007). According to the five- task involving factors, of athletes perception of a peer created motivational climate, the improvement, and relatedness support factor, are the two most important critical factors underlying athletes commitment to sport involvement (Ntoumanis, Vazou, & Duda, 2007). Since some participants reported the statement of not be motivated in sport anymore, there may also be a possibility that the participants didn't experience the improvement and relatedness support to be captured by, and among the peers in their climate. Another possible view is that the effort dimension, of the five task-involving factors within the climate (Ntoumanis, Vazou, & Duda, 2007), was considered as low as well. Continuously, a possible lack of a high enough content within the improvement, relatedness support and effort factor, could further have been demonstrated in terms of maladaptive achievement patterns among the peers in the climate. The maladaptive achievement strategies could have been demonstrated in terms of higher anxiety, the belief that ability is an important determinant of sport achievement, dropping out of sport, greater conflict among peers, and perceiving one's coach providing less social support and positive feedback and more punishment oriented feedback, and again, of lower moral functioning among peers (Ntoumanis, Vazou, & Duda, 2007). These maladaptive achievement strategies could have been reflected and linked to the participants sport related barriers, since they reported; not be motivated in the sport anymore, not get much playing time from coach, and bad behaviours of some teammates, as some of the factors. These statements could, again, have been reflected through the maladaptive achievement strategies through the participants possible perception of an ego-involving climate. The factors contributing to participants poor athletic performance can also be linked to previous research findings, of older athletes general perception of a more intrateam conflict among peers in their climate (Ntoumanis, Vazou, & Duda, 2007). Adolescence is further typically characterized by an increased independence from the family as the peer group becomes more influential. It may further also be possible that the participants perceived bad behaviour of some teammates was derived from a lack of emotional, informational, appreciative or high enough relatedness support from their teammates. The social support source also serve as a important factors of the 11 dimensions of a peer-created motivational climate in sport according to Ntoumanis, Vazou, and Duda (2007). According to Lazarus and Folkman (1984) and Taylor, Ogilvie, and Lavalley (2006) two most important factors, which also can influence athlete's ability to respond effectively to their obstacles, and difficulties, are coping skills and social support.

To reconnect to the participants personal development along with the social support, and good team communication, adaptive achievement strategies could have been integrated and resulted in participants perception of a task- involving climate as well. The adaptive achievement strategies could have been reflected through greater enjoyment, derived from the statements of; have other interest, fun events happening outside of sport, other sport interest, and of the statement of become active as a referee in the sport. Adaptive achievement strategies could also have been reflected through, the belief that effort is an important cause of sport success. These could in turn have been derived from the statement of; the work with one's goals. Self ratings of performance and improvement could have been reflected through the statements of; manage handling performance anxiety, have clear goals, support from teammates, and get into a good education on a higher level. The use of adaptive coping strategies could also have been reflected through the statement of good retirement planning in advance. The statement of the

work with one's goals, could in turn also have been an indicator of the participants use of adaptive coping strategies. The received support from coach could have been a result derived from the perceptions of coach's provided positive constructive feedback. Higher ratings of teams degree of task and social cohesion, and positive peer relationship, could have been derived from the statements of; support from teammates and from the support from coach. At last, the statement of good team communication within the club could have been a result derived from the perceptions of an good work ethic within the climate (Ntoumanis, Vazou, & Duda, 2007). Higher ratings of teams degree of task, and social cohesion, and positive peer relationship could further have contributed to higher ratings of improvement and relatedness support among participants perception of a peer created motivational climate. The improvement and relatedness support dimension also serve as an important determinant for commitment in sport, which also could have been derived from the sources of the; support from teammates and support from coach. Commitment to sport also serve as an fundamental part to reach an ideal peak performance state according to Hardy, Jones, and Gould's (1996) model. And as a achievement behavior reflected in terms of different achievement and motivational patterns, according to Duda and Balaguer (2007). A self-referenced improvement also leads to more adaptive beliefs about the causes of success where the individual sustains a involvement in learning, under circumstances of pressure, and even when perceived ability is low (Ntoumanis, Vazou, & Duda, 2007). Research findings regarding the motivational climate created by parents, peers and coaches also correspond to the physical, social, and organisational environment in Hardy, Jones, and Gould's (1996) model. Research findings of athletes perception of the overall motivational climate created by the parents, peers, and coaches further also correspond to the role of significant others, in Wylleman and Lavallee's (2004) developmental model. The influence of significant others especially becomes important on athletes psychosocial development, which further also influence athletes psychological development at the athletic level (Wylleman & Lavallee, 2004).

According to Wylleman, Knop, Verdet, & Cecic- Erpic (2007) few research findings, on the role of parents, turns out to be available on the discontinuation stage. Significant others, which however include parents have found to play an important role of the discontinuation process. Emotional support also turns out to be one of the three most important factors relevant to a successful retirement from sport. The intensity of the emotional support also turns out to be linked to the effect, rather than the effect on the size of the social network (Horn & Horn, 2007; Wylleman & Lavallee, 2004; Wylleman, Knop, Verdet, & Cecic- Erpic, 2007). The maintenance stage is according to Stambulova (1996) a stage between the mastery and the discontinuation stage in Wylleman and Lavallee's (2004) developmental model. The discontinuation stage on the other hand, in Wylleman and Lavallee's (2004) developmental model, is where the athlete stops to participate in competition on the previous achieved level. Athletes new focus instead turns out to be on starting a new professional career or studies, and develop a identity related to a new social role. In the confirmed maintenance stage, is where the athletes tries to maintain sport results on a high enough level, and starts to prepare for a termination. Relevant research findings regarding the importance of the social support in terms of emotional support (Horn & Horn, 2007; Wylleman & Lavallee, 2004; Wylleman, Knop, Verdet, & Cecic- Erpic, 2007) becomes interesting to consider. It specially becomes interesting to consider in the process of remaining sport results on a high enough level, and of the process to start to prepare for a termination. In this process the emotional support (which also varies in the amount of intensity) becomes beneficial. In this study it appeared that good retirement planning in advance, support from coach, support from teammates, and support from girlfriend were some of the factors leading to a successful athletic performance. These

factors could, or can in turn also further contribute to a future successful coping regarding the process, on the maintenance stage for the participants.

### **Applications**

The fact that it appears to be various of factors contributing to both successful and poor athletic performance, is important to consider. It becomes relevant to consider in order to support athletes to optimize their athletic performance, and to support them in reaching an ideal task specific performance state.

Since this study reflects the factors contributing to successful and poor athletic performance, by consider these factors across different career stages, many different actors, such as coaches, teachers, teammates, family members, friends, and sport psychology consultants, can benefit from this study. This by consider implementing these factors into there own work. The various different actors are important significant others included in an athlete's environment circle. All mentioned actors can benefit from implementing this study, by consider these factors, through a work in creating an facilitating athletic environment that will stimulate the probability for the factors to be nurtured and enhanced by the athletes. But this work further depends on the different role the various actors have in the work in facilitating these factors within the environment. For instance, coaches and teachers can help develop and enhance motivation in athletes, and students indirectly by setting up the competitive environment so that they are optimally challenged to pursue their goals, and provide appropriate feedback and reinforcement. Teammates can serve as supportive supporters and function as good communicators among each other, and so forth. It is also important to consider these factors in order to conduct a further study to examine other factors contributing to athletes athletic performance, if necessary. For example, a further study could have been done, by examine the appeard factors in this study, with other studies that have examined factors across career stages. Or with other studies that have examined factors on one specific career stage, as the development or mastery stage for instance, in order to futher examine a relationship of athletes perceived demands and resources in relation to the appeard factors on the stage. In this way the probability of nurture the factors that can contribute to athletes successful athletic performance can be enhanced.

### **Methodological reflections**

The study was aimed to examine factors contributing to successful athletic performance, as well as examine factors contributing to poor athletic performance across different career stages. A interview guide was constructed based upon the two theoretical frameworks that are used in the study. The interview guide was constructed with questions that were retrospective and actual, which allowed the participants to reflect on both previous as well as present performance experiences. Prior all interviews a test-interview was conducted in order to prepare mentaly for the interviews, and to test if the interview guide was preferable from an informants perspective.

The interviews had some challenges. One challenge was the varied places and the different social context all interviews were conducted at. The interviews could all have been conducted in a quiet room, for instance, or at one same place, such as a clubhouse. In such cases the circumstances would have been the same for every participant. Possible perceived distractions and disruptions would also in such cases have been limited, which further would have strengthened the reliability and validity for the study. But from another point of view, those varied placec (e.g., dining room, school library, cafe, training arena, soccer clubhouse, ect.) also were established based upon agreements and arrangements from the participants, in order to conduct the interviews. This can be considered as an challenge, and at the same time as a

advantage. The study had some advantages and one consider the fact that the interviews were conducted at different places in varied social contexts. This can be seen as an advantage, because the participants that took part of the study were both individual and team sport athletes from 6 different sports, which further exert different demand on the social context the participants usually also are used to be at, or prefer to be in, during a retrospective and actual interview. Another advantage was that the opportunity for flexibility was considered as high for the participants, and for the interviewer as well.

The ethical issues has been carefully considered both before and during the study, which the participants also were informed about. The amount of participants also made it easier to conduct factors contributing to both successful and poor athletic performances across different career stages. In this way it also made it easier to generalize the results of factors that turns out to contribute to both successful and poor athletic performance. A feeling of repetition during the interviews of factors contributing to successful and poor athletic performance on one stage, in the athletic career, was also perceived as an advantage. This because the topic was discussed in relation to all participants athletic careers, which made it easier to see a pattern of factors that contribute to successful and poor athletic performance across career stages.

### **Future directions**

Future research should continue to examine and focus on one particular athletic career stage, as the mastery stage. The research should also focus on one particular sport group, or couples of sport groups, by examine athletes perceived demands and resources related to the examined factors. Further research should also continue to go deeper into the factors by exploring these factors more in detail, in relation to athletes perceived demands and resources related to the factors.

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## **Content of appendices**

Appendix 1: Interview guide: Factors influencing athletic performance across career stages.

Appendix 2: Individual profile example.

Appendix 3: Individual profiles

3.1. Athlete 1.

3.2. Athlete 2.

3.3. Athlete 3.

3.4. Athlete 4.

3.5. Athlete 5.

3.6. Athlete 6.

3.7. Athlete 7.

3.8. Athlete 8.

3.9. Athlete 9.

3.10. Athlete 10.

**Factors influencing athletic performance across career stages**  
Interview guide

This interview is a part of the study about the factors that influence athletic performance across career stages. 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 Name:
- 1.2 Age:
- 1.3 Gender:
- 1.4 Major sport:
- 1.5 Level of sport participation:
- 1.6 Number of years involved in major sport:

**Part 2. Athletic career development**

- 2.1 Please divide your athletic career into several (2-4) stages.
- 2.2 Tell me briefly what happened with you on the following stage in sport.
- 2.3 Tell me briefly what happened with you on the following stage outside of sport.

**Part 3. Athletic performance**

- 3.1 Tell me about your successful competitions (games) during stage 1.
- 3.2. What factors contributed to your successful performances at stage 1.
- 3.3. Tell me about your poor competitions (games) during stage 1.
- 3.4. What factors contributed to your poor performances at stage 1.

Note: the same questions will be asked about each career stage identified by the participant.

**Part 4. Summary**

- 4.1 Please, summarize (as key words) factors contributed to your successful athletic performance on each of the career stages you identified.
- 4.2. Please, summarize (as key words) what factors contributed to your poor athletic performance on each of the career stages you identified.

Thank you for your participation!

### **Individual profile example**

Athlete: \*  
Major sport:  
Level of sport participation:  
Gender:  
Age:  
Number of years involved in major sport:

#### **Stage 1.**

1.1 Factors contributing to successful athletic performance:  
1.2 Factors contributing to poor athletic performance:

#### **Stage 2.**

2.1 Factors contributing to successful athletic performance:  
2.2 Factors contributing to poor athletic performance:

#### **Stage 3.**

3.1 Factors contributing to successful athletic performance:  
3.2 Factors contributing to poor athletic performance:

#### **Stage 4.**

4.1 Factors contributing to successful athletic performance:  
4.2 Factors contributing to poor athletic performance:

#### **Stage 5. Summary**

5.1 Summary (as key words) factors contributed to successful athletic performance on each of the career stages identified by the athlete:  
5.2 Summary (as key words) factors contributed to poor athletic performance on each of the career stages identified by the athlete:

## Appendix 3.1

**Individual profile**

Athlete: 1  
 Major sport: Horse riding  
 Level of sport participation: Local  
 Gender: Female  
 Age: 19  
 Number of years involved in major sport: 7 years

**Stage 1.**

1.1 Factors contributing to successful athletic performance:

- interest
- the desire to work out
- motivation

1.2 Factors contributing to poor athletic performance:

- to ride a horse that is poorly trained

**Stage 2.**

2.1 Factors contributing to successful athletic performance:

- receive more intensive training
- hanging in the barn more
- observing others
- borrow books about horses
- train 4 hours a day
- praised by coach
- get more challenges
- good food for the horse
- dreaming to be like Malin Bayard
- prepare oneself
- having halloween partys at the club

2.2 Factors contributing to poor athletic performance:

- stay in the same place
- having pressure
- must be good
- lack of support by coach
- not getting so much feedback
- lack of money to participate in the sport
- do not think it's fun anymore
- parents who do not have the interest
- to high goals
- to think that you must be perfect all the time
- set the bar too high
- think that you do not want to tear down a barrier
- start failing to believe

**Stage 3.**

3.1 Factors contributing to successful athletic performance:

3.2 Factors contributing to poor athletic performance:

**Stage 4.**

4.1 Factors contributing to successful athletic performance:

4.2 Factors contributing to poor athletic performance:

**Stage 5. Summary**

5.1 Summary (as key words) factors contributed to successful athletic performance on each of the career stages identified by the athlete:

- interest
- motivation
- training
- faith
- focus
- role model learning

5.2 Summary (as key words) factors contributed to poor athletic performance on each of the career stages identified by the athlete:

- high goals
- negative thoughts
- lack of development

## Appendix 3.2

**Individual profile**

Athlete: 2

Major sport: Powerlifting

Level of sport participation: National (SM)

Gender: Male

Age: 48

Number of years involved in major sport: 15 years

**Stage 1.**

1.1 Factors contributing to successful athletic performance:

- fun
- advances in sport
- much training
- good coach
- much of the time devoted to sport

1.2 Factors contributing to poor athletic performance:

- do not hang out with the same friends outside sport

**Stage 2.**

2.1 Factors contributing to successful athletic performance:

- very satisfying competitions
- many competitions
- many trips
- well justified
- good preparation
- good coach
- funny teammates

2.2 Factors contributing to poor athletic performance:

- injury
- environmental impact
- doping
- alcohol
- not fun to go on competitions sober alone
- poorly trained
- heavy exercise
- not much heating
- raise too much weight
- pushing yourself too much by dieting

**Stage 3.**

3.1 Factors contributing to successful athletic performance:

- working as a consultant within the club
- fun to help young people

### 3.2 Factors contributing to poor athletic performance:

- boring to practice at the same place as you work at
- injury due to a wear in the knee
- being very upset with the club
- physically demanding sport
- not exercise regularly
- poor heating
- take to high weights
- problems within the club

### **Stage 4.**

#### 4.1 Factors contributing to successful athletic performance:

- continued training after elite career
- less performance anxiety
- fun to talk to people
- better doping controls
- more information at the club
- become active as a referee in the sport

#### 4.2 Factors contributing to poor athletic performance:

- bad behavior of some athletes

### **Stage 5. Summary**

#### 5.1 Summary (as key words) factors contributed to successful athletic performance on each of the career stages identified by the athlete:

- training
- joy
- coach
- teammates

#### 5.2 Summary (as key words) factors contributed to poor athletic performance on each of the career stages identified by the athlete:

- training
- joy
- coach
- teammates

## Appendix 3.3

**Individual profile**

Athlete: 3  
 Major sport: Track and field  
 Level of sport participation: National (SM)  
 Gender: Female  
 Age: 25  
 Number of years involved in major sport: 13 years

**Stage 1.**

1.1 Factors contributing to successful athletic performance:

- have great development
- fun with sports
- training on your own
- parents who buy own starting blocks and hedges for the athlete
- steady development of both school and sports
- new vision of what you want to achieve
- know what price you pay
- shared focus on education and training
- high hopes
- class teacher who recommends to start sports
- intrinsic motivation
- persistence
- positive outlook

1.2 Factors contributing to poor athletic performance:

- to live far away form training
- not have a huge confidence from the start
- very large and high standards for oneself
- compete in everything in life
- pressure
- stress

**Stage 2.**

2.1 Factors contributing to successful athletic performance:

- have a workout depending
- to win medals
- the coach knows that you're training for a sm gold
- extra training
- much support from parents

2.2 Factors contributing to poor athletic performance:

- to not get much school support
- much injuries
- injuries that continuously follow one after the other
- too much training

- pressure and stress from oneself and coach
- coach who do not say that it is enough
- fights between coach and parents
- bad load of the body
- imbalance in the body
- chaos outside of the sport
- unable to sleep
- not able to eat
- anxiety
- performance anxiety
- concern
- depression
- having four major injuries

### **Stage 3.**

3.1 Factors contributing to successful athletic performance:

- having very different goals than before
- modify goals
- a little break from the sport
- finish school
- fun transition to a new job
- positive things that happen outside of life that rubs off on sport
- see a positive pattern of ones goals in relation to what the coach says
- positive pattern over always be three tenths above target
- training support
- coach who believes in the athlete

3.2 Factors contributing to poor athletic performance:

- time pressure in life
- not keep up with the sociability
- pain in the back

### **Stage 4.**

4.1 Factors contributing to successful athletic performance:

4.2 Factors contributing to poor athletic performance:

### **Stage 5. Summary**

5.1 Summary (as key words) factors contributed to successful athletic performance on each of the career stages identified by the athlete:

- persistence
- drive
- positive outlook
- family support
- coach who believes in the athlete
- modified goal-setting

5.2 Summary (as key words) factors contributed to poor athletic performance on each of the career stages identified by the athlete:

- to be too demanding
- status
- how others will perceive you
- injuries
- overtraining
- stress
- negative life events

## Appendix 3.4

**Individual profile**

Athlete: 4

Major sport: Hockey

Level of sport participation: National, Div. 1

Gender: Male

Age: 20

Number of years involved in major sport: 14 years

**Stage 1.**

1.1 Factors contributing to successful athletic performance:

- good learning process
- find it fun

1.2 Factors contributing to poor athletic performance:

- (none) not think it's fun

**Stage 2.**

2.1 Factors contributing to successful athletic performance:

- think it's really fun
- get to work more with oneself
- more and more serious training
- go in for it for a little more
- increasing exercise constantly all the time

2.2 Factors contributing to poor athletic performance:

- to be the absolute star of the team
- not get much individual development
- no optimal development
- play in a club where all players are worse than you
- scoring goals but still lose all the time with the team

**Stage 3.**

3.1 Factors contributing to successful athletic performance:

- to peak as a 16-year-old
- be a big part of that team wins
- be involved in all the goals
- having a very fun season
- when things are going well for the team throughout the season
- when the team wins
- come to a better team
- play with players that are better
- fun with competition
- compete with other players
- to fight more
- be able to develop more

### 3.2 Factors contributing to poor athletic performance:

- when switching to a wrong team
- injuries
- not getting playing time
- to change from youth team to junior team
- get a coach that you do not like as much
- when it differs 2-3 years between players
- when it is getting very tough

### **Stage 4.**

#### 4.1 Factors contributing to successful athletic performance:

- getting a new better coach
- good retirement planning in advance
- nice feeling of not having to perform
- to go for higher studies
- have an interest in weight lifting training

#### 4.2 Factors contributing to poor athletic performance:

- become tired of the sport
- not get much playing time
- to not be motivated anymore
- when it is in your head that you should stop
- when a coach does not prioritize player

### **Stage 5. Summary**

#### 5.1 Summary (as key words) factors contributed to successful athletic performance on each of the career stages identified by the athlete:

- strive to win games
- individual development
- team development
- strong desire
- good attitude
- luck
- good coach
- fighting ability

#### 5.2 Summary (as key words) factors contributed to poor athletic performance on each of the career stages identified by the athlete:

- bad luck with a coach who does not like you

## Appendix 3.5

**Individual profile**

Athlete: 5  
 Major sport: Soccer  
 Level of sport participation: National, Div. 1  
 Gender: Female  
 Age: 26  
 Number of years involved in major sport: 14 years

**Stage 1.**

1.1 Factors contributing to successful athletic performance:

- play evening matches
- playing soccer in the playground
- when there is soccer everywhere
- dad is a soccer coach
- brother who plays soccer
- much soccer in the family
- the desire that you want to be with your friends
- to flow along
- small stuff that determines

1.2 Factors contributing to poor athletic performance:

- Parents are afraid that the athlete will hit the head someday
- have genetic vulnerability
- have a lot of self-criticism
- dad says that a performance was crappy

**Stage 2.**

2.1 Factors contributing to successful athletic performance:

- to train with males too
- good sleep
- eat good
- good preparation
- good mental images before the match
- fun to practice with both men and women
- go to a school that has a lot of money
- be offered scholarship
- randomness that can determine, talent scouts who see player
- happy with ones teammates
- when other friends keep in touch
- to finish an education
- play with international players
- when the coach understands

2.2 Factors contributing to poor athletic performance:

- not get help from ones team player

- when you lose focus
- to be too concentrated
- have a boyfriend that gives a sense of guilt
- the heat in the USA
- have a injury in one year
- get hit by a car in usa
- have a lot of back problems
- long trips are not simple

### **Stage 3.**

3.1 Factors contributing to successful athletic performance:

- positive competition
- good structure of life and football with other parts of life
- the support of teammates
- when you can share experiences with others in the team
- good communication
- team building around a goalies pros and cons
- teammates that complement each other
- thoughts on that other players are sharp
- to catch more balls in the air because you are 1 m longer than others

3.2 Factors contributing to poor athletic performance:

- declining confidence
- do not get a lot of confidence from coach
- not getting support from a coach
- groupings in a team
- not getting rewards for ones efforts

### **Stage 4.**

4.1 Factors contributing to successful athletic performance:

- to be able to focus on the life outside of sport so it can match with the sport

4.2 Factors contributing to poor athletic performance:

- (none, to be continued)

### **Stage 5. Summary**

5.1 Summary (as key words) factors contributed to successful athletic performance on each of the career stages identified by the athlete:

- be special
- knowing what you want
- assertiveness
- strong will
- believe in yourself
- attitude
- stand out
- good sense
- have been young and promising
- courage to stand up for oneself

- question things
- courage to change the club
- to talk and control
- opportunities for development

5.2 Summary (as key words) factors contributed to poor athletic performance on each of the career stages identified by the athlete:

- to over analyze
- think too much
- to be withdrawn
- wanting too much
- daily routines that do not work

## Appendix 3.6

**Individual profile**

Athlete: 6  
 Major sport: Soccer  
 Level of sport participation: National, Div. 1  
 Gender: Male  
 Age: 19 years  
 Number of years involved in major sport: 10 years

**Stage 1.**

1.1 Factors contributing to successful athletic performance:

- have a positive sudden turn
- to compensate physical weakness with technical skill
- to be technical
- to be small and flexible

1.2 Factors contributing to poor athletic performance:

- natural small
- be weak physically
- not being able to beat as long balls as other teammates
- not be able to kick the ball as far as others

**Stage 2.**

2.1 Factors contributing to successful athletic performance:

- become a starting player
- be much involved in the attack game
- dare to challenge
- manage to score
- to be in control at your position
- have the upper hand on its edge and position
- maintaining confidence
- good cooperation with other players in front of you
- succeed with your skills (dribble)
- successful play
- catch up with the other players in terms of physics
- check how other awesome player do for example, Messi and Xavi
- experience of play with older players
- dare to do your stuff
- improve your technical skills
- increased tempo
- getting the chance to play
- get coach's confidence
- trust from your teammates
- being the oldest in a group makes you dare to speak a lot on the field
- to get on with your group

2.2 Factors contributing to poor athletic performance:

- concerns about what the coach is thinking
- too much pressure

### **Stage 3.**

3.1 Factors contributing to successful athletic performance:

- observe other talented players
- routine
- degree of relevant experience of play with older players
- good physique
- good technique
- develop much mentally
- get chances
- when your coach likes you
- that one's teammates believe in your football skills
- when others think you are a good soccer player

3.2 Factors contributing to poor athletic performance:

- not feel well in the group
- don't get much playing time
- not dare to challenge the older players in the group
- poor physique
- thoughts about mistakes because of pressure to prove oneself in front of the coach
- make mistakes that cost
- when the coach does not give the player confidence
- end up in a bad spiral
- performance anxiety

### **Stage 4.**

4.1 Factors contributing to successful athletic performance:

4.2 Factors contributing to poor athletic performance:

### **Stage 5. Summary**

5.1 Summary (as key words) factors contributed to successful athletic performance on each of the career stages identified by the athlete:

- uniqueness
- mental strength
- be a little selfish
- unique technical skill
- confidence
- the desire to succeed
- coach's confidence
- mental toughness
- give yourself a fair chance

5.2 Summary (as key words) factors contributed to poor athletic performance on each of the career stages identified by the athlete:

- mental weakness
- bad luck
- injuries

## Appendix 3.7

**Individual profile**

Athlete: 7  
Major sport: Soccer  
Level of sport participation: National, Div. 1  
Gender: Male  
Age: 18  
Number of years involved in major sport: 13 years

**Stage 1.**

1.1 Factors contributing to successful athletic performance:

- to develop
- stand out more and more for each practice
- develop within the group and the group
- be best in the team

1.2 Factors contributing to poor athletic performance:

- don't think it's fun
- feel that you are bad

**Stage 2.**

2.1 Factors contributing to successful athletic performance:

- when everything works
- making a stable performance
- think that it is the final you play
- tagging properly the day before
- good preparations, eat right and sleep right
- practice together a lot with other teammates
- have the same coach
- go in the same class with the players also
- meet every day
- enjoy sports team very much
- able to take a little break from soccer for a while
- team building

2.2 Factors contributing to poor athletic performance:

- rush back from injury
- forced to prove yourself
- when nothing is there, concentration and passes
- have a lot of nerves
- injuries

**Stage 3.**

3.1 Factors contributing to successful athletic performance:

- do their best to communicate with the oldest players in the team
- control and speak a lot
- dare to show what you are able to do

- maturity
- grow physically
- feel confident in the team
- feel good with coaches and teammates

3.2 Factors contributing to poor athletic performance:

- when success factors in step 3 does not work

#### **Stage 4.**

4.1 Factors contributing to successful athletic performance:

4.2 Factors contributing to poor athletic performance:

#### **Stage 5. Summary**

5.1 Summary (as key words) factors contributed to successful athletic performance on each of the career stages identified by the athlete:

- give 110% in all situations
- joy of playing soccer
- have fun
- when everything releases
- teammates that you enjoy
- great coach
- agility and speed

5.2 Summary (as key words) factors contributed to poor athletic performance on each of the career stages identified by the athlete:

- disease

## Appendix 3.8

**Individual profile**

Athlete: 8  
 Major sport: Soccer  
 Level of sport participation: National, Div. 1  
 Gender: Male  
 Age: 19  
 Number of years involved in major sport: 15 years

**Stage 1.**

1.1 Factors contributing to successful athletic performance:

- when it goes well for you when you're young
- like to play
- support from parents
- when parents always helps
- sister who also plays soccer
- when all your friends also play soccer
- play much soccer in school
- much soccer in your spare time
- to live near a soccer field
- to belong among the best in the team and get to play with older
- when a coach likes you
- get much praise from coach
- to score a lot
- feel that things are going well and forward

1.2 Factors contributing to poor athletic performance:

- be punished for a less good performance
- don't think it's fun
- not think that you are good

**Stage 2.**

2.1 Factors contributing to successful athletic performance:

- get to play with players who are 2-3 years older
- coach who likes you
- receive the captain's role
- when advancing, and still getting better
- get the reward, make it to the Skåne-team
- scoring
- win a lot of ball
- feeling in the air that you are in the mood
- remain at a consistently high level
- when there are people watching you when you are performing
- get to go home early from school
- good cooperation between school and football
- good preparation

- eat well
- get more professional approach
- parents who always followed to games
- be driven and taken from games
- good balance of life and football

## 2.2 Factors contributing to poor athletic performance:

- if the body does not feel good
- feel worn
- bad mood
- been tired at school
- to become replaced or not get to play from the start
- not prepare for games
- go to bed late at nights

## **Stage 3.**

### 3.1 Factors contributing to successful athletic performance:

- first ball contact that makes you calmer
- have an agent
- get a lot of support and advice from your agent
- that parents care
- have contacts within and outside football
- have other interests outside of sport as well
- make a trip to Los angeles with the family and one friend

### 3.2 Factors contributing to poor athletic performance:

- injury
- to replace trainer
- when you have gotten worse
- mood is not as it should
- body feels bad
- get a first poor ball contact
- be replaced and make mistakes
- not be tagged
- bad attitude
- not good tension level
- not prepare as much
- be disappointed
- not play
- overwork
- find it difficult to get into the team
- not receive assistance from the club
- pressure to leave or change club
- not have or receive an extended contract
- being underpaid as a soccer player
- when money, soccer and other life events does not balance

**Stage 4.**

4.1 Factors contributing to successful athletic performance:

4.2 Factors contributing to poor athletic performance:

**Stage 5. Summary**

5.1 Summary (as key words) factors contributed to successful athletic performance on each of the career stages identified by the athlete:

- hard work from the athlete
- avoid injuries
- have luck
- people's attention on you
- effort
- not caring about what others will think
- believe in yourself
- find your own way in sport

5.2 Summary (as key words) factors contributed to poor athletic performance on each of the career stages identified by the athlete:

- to focus on others' success
- bury yourself in sorrow
- much bullshit
- that other players get paid more than you

## Appendix 3.9

**Individual profile**

Athlete: 9

Major sport: Track and field

Level of sport participation: International (Final)

Gender: Male

Age: 27

Number of years involved in major sport: 12 years

**Stage 1.**

1.1 Factors contributing to successful athletic performance:

- see dad on TV
- be triggered to also be like dad
- have role models to look up to
- train with other children in your age
- that things go well in the beginning
- be fast
- like to run
- get much training
- get a lot of praise
- the trainer knows early on which branch you should participate in
- learn rules fast
- have a coach that follow you
- be able to learn quickly

1.2 Factors contributing to poor athletic performance:

- dad who misses much of one's development
- father who is rarely at home
- poor performance in school
- moving to a new country with less opportunities

**Stage 2.**

2.1 Factors contributing to successful athletic performance:

- involvement in other sports activities
- other sports that also compensates for track and field
- to focus more on school
- have a quick learning ability
- sharing focus on school and sports
- enjoy your friends in one's environment, education and training
- have an aunt who cares a lot

2.2 Factors contributing to poor athletic performance:

- live far away from the training
- not having money
- when dad does not want to invest money in your sport
- poor family support when it comes to your sport

- not having a coach who has an eye on you
- not get into the sports school
- not have the opportunities to attend major competitions

### **Stage 3.**

#### 3.1 Factors contributing to successful athletic performance:

- moving to a new country with more opportunities
- enter the right training
- enter the right school education
- begin to focus more on sports again
- participate in the largest international contest
- move on from the semi finals to the finals
- work together with 3-4 seniors who have experience
- help each other in the group
- learn from each other
- get a lot of time training
- to work hard with a coach
- get very personal encouragement from a coach
- support
- much positive pressure
- receive much support from the club
- see how others are doing to learn the technique
- the coach knows how to use athlete's strengths
- like to run
- have great potential

#### 3.2 Factors contributing to poor athletic performance:

- injuries
- being unable to practice
- not be in shape
- being forced to participate in spite of pain
- become too comfortable
- having too little pressure
- moving to a new city

### **Stage 4.**

#### 4.1 Factors contributing to successful athletic performance:

- have clear goals
- to work with ones goal with a coach

#### 4.2 Factors contributing to poor athletic performance:

- lack of time
- that school must come first

### **Stage 5. Summary**

#### 5.1 Summary (as key words) factors contributed to successful athletic performance on each of the career stages identified by the athlete:

- like to run

- have a good coach
- love what you are doing
- must have opportunities
- support from coach, family, teammates and the club

5.2 Summary (as key words) factors contributed to poor athletic performance on each of the career stages identified by the athlete:

- bad circumstances
- lack of opportunities

## Appendix 3.10

**Individual profile**

Athlete: 10

Major sport: Karate

Level of sport participation: National (SM)

Gender: Male

Age: 23

Number of years involved in major sport: 10 years

**Stage 1.**

1.1 Factors contributing to successful athletic performance:

- be with friends and go with them to the activities
- try other activities too
- learn much
- not have parents with you to the training
- that parents are happy that you have a hobby
- to think it's fun

1.2 Factors contributing to poor athletic performance:

- not being good
- have poor coordination
- if you can't demonstrate your skills in the beginning

**Stage 2.**

2.1 Factors contributing to successful athletic performance:

- have a solid foundation
- the coach takes care of you
- getting special training from coach
- have the same coach
- be fast
- have a good timing
- winning various competitions
- the coach sees that you are good
- to be promising
- train more intensely
- preparations for games

2.2 Factors contributing to poor athletic performance:

- if parents go to the competitions and trainings
- when you are less concentrated
- when you can not focus as well when parents are there

**Stage 3.**

3.1 Factors contributing to successful athletic performance:

- have longer range
- preparations
- the work between each race

- timing
- speed
- participate in the open weight classes sometimes

### 3.2 Factors contributing to poor athletic performance:

- not being able to put on more muscles
- weakness
- lose motivation
- drinking

### **Stage 4.**

#### 4.1 Factors contributing to successful athletic performance:

- have other interests outside of sport
- get into a good education
- get a girlfriend

#### 4.2 Factors contributing to poor athletic performance:

- find other things more interesting
- thoughts about wanting to do other things in life

### **Stage 5. Summary**

#### 5.1 Summary (as key words) factors contributed to successful athletic performance on each of the career stages identified by the athlete:

- talent
- motivation to practice and work hard
- to do it
- willingness

#### 5.2 Summary (as key words) factors contributed to poor athletic performance on each of the career stages identified by the athlete:

- barrier outside of sports
- external factors such as job
- get involved in a bad social circles