

**PSYCHOSOCIAL IMPACT OF CAREER-ENDING INJURIES IN  
PROFESSIONAL ICE HOCKEY PLAYERS: A QUALITATIVE STUDY**

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## ABSTRACT

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Injuries are a regular occurrence amongst athletes, and on occasion so severe as to impact the continuation an athlete's career. Retirement from sport, in any circumstances can be a difficult transition for an athlete, particularly when participation in sport has formed a significant part of their identity, personality, and life as a whole. Research in this area is limited, as existing studies focus on injury and career termination separately. Thus, the purpose of this study was to document the lived experiences of professional ice hockey players who have encountered career-ending sports injuries. Three former professional Finnish ice hockey players participated in this study, all of who had played in Finland's top ice hockey league (Liiga). Data were collected through individual, semi-structured interviews. Following prolonged engagement and transcription, the data were analysed in accordance to guidelines for interpretative phenomenological analysis.

The findings of this study present the challenges the participants went through during their injury experiences and career transition processes. Key aspects involved in a successful transition out of sport included developing a more balanced self-identity, access to social support and gaining financial stability. Through self-reflection, participants were able to form identities that did not revolve solely around their athletic careers. For example, they came to value personal development and family over the ability to keep playing at the professional level. Spouses, doctors and physiotherapists were the most influential providers of beneficial social support. In contrast, proceedings with insurance companies hindered participants' transition processes by limiting career retraining options and adding complications in terms of gaining financial security. These findings may assist professionals involved in injury rehabilitation to better understand the psychosocial impact that career-ending injuries have on individual athletes. For instance, they could help athletes to better manage this transition by implementing pre-retirement planning or giving them opportunities to discuss concerns with a sport psychologist. Future studies could expand on this research by using larger samples, and by examining different sports, cultural contexts and female participants.

Keywords: injuries, sport psychology, career termination, ice hockey

## 1 INTRODUCTION

Ice hockey is a high intensity contact sport played between two teams. Each team consists of five rotating skaters, and one goaltender in play. On the ice, players skate at speeds of up to 60km per hour and both initiate and receive full-body contact hits. As such, athletes are at risk of injury every time they skate out on to the ice. Although there are several studies that have looked at injury incidence in ice hockey, the results vary greatly from study to study. For example, the injury rate for a Swiss professional men's team was 6.48 per 1000 player hours over a period of four years (Ormon, Fritschy, Ziltener, & Menetrey, 2011), while another study with NHL players reported this number to be at 15.6 in the regular season, and 49.4 when only recorded time on ice was used over six seasons (McKay, Tufts, Shaffer & Meeuwisse, 2014). Emery and Meeuwisse (2006) reported 4.13 injuries per 1000 player hours in a sample of 71 Canadian youth teams. Additionally, Smith, Stuart, Wiese-Bjornstall and Gunnon (1997) found 34.4 per 1000 player-game hours among high school hockey players. Their study also found that injuries were more likely to occur during games rather than practices, and often involved collisions. Finally, it has been estimated that 30% of all ice hockey careers end due to injury (Vuolle, 2008).

Teemu Selänne, a living ice hockey legend, decided to end his 22-year NHL and 26-year national team careers following the 2013-2014 season at the age of 43. Although relatively young and an inspiration to many ice hockey enthusiasts all over the world, he was headed directly for surgery following the end of his remarkable career. Selänne is now facing surgery to place a prosthetic in his knee, and to re-align bones in the other leg (Lahti, 2013). While he was lucky to be able to choose when he wanted to end his career unlike others, it will be no different as his body and health will pay the price post-career, along with the other matters that come with retirement. Despite the fact that Teemu Selänne did not suffer from a career-ending injury, he serves as an example here to demonstrate the physical impact of ice hockey.

This research was conducted in Finland, one of the few places in the world where ice hockey is considered to be the most popular sport (Virkkunen, 2014). With high media attention, it is the most watched team sport among television spectators, and gathers the most live spectators per game with an average of 5,000 people per Liiga (the top

professional ice hockey league) game, with the 2<sup>nd</sup> division league (Mestis) ranking 4<sup>th</sup>. Not surprisingly, ice hockey holds a commercial role in Finland, and provides employment for hundreds of people, and utilizes the efforts of thousands of volunteers. Moreover, the Finnish ice hockey association (2014) reports 190,000 active intramural players and over 72,000 licenced players. According to Tyni (2012), this appreciation stems from continued international success and the high level of the Finnish ice hockey league. Despite this reality, there is a lack of publications about this sport that is important at even the societal level in Finland (Tyni, 2012), and those that exist only emphasize coaches' perspectives.

Retirement from sport, in any circumstances, can be a difficult transition for an athlete, particularly when participation in sport has formed a significant part of their identity, personality, and life as a whole. Moreover, research tends to suggest that athletes' adjustment to post-athletic life is also influenced by whether retirement was through volition, making retirement from an unwanted sport injury a particularly difficult and arduous process. Thus, the purpose of this study is to document the lived experiences of former professional athletes who have encountered career-ending sports injuries, and to examine the associated factors.

## 2 LITERATURE REVIEW

This section covers two key topics closely related to this study; career transitions and termination, and career-ending injuries. The overview includes definitions, past findings, and several commonly utilized models.

### 2.1 Career transitions and career termination

#### *Definitions*

Retirement from sport is an inevitable career transition, which every athlete must face eventually. A transition has been defined as “an event or non-event, which results in a change in assumptions about oneself and the world and thus requires a corresponding change in one’s behaviour and relationships” (Schlossberg, 1981, p5). More recently, a transition has been described as a process rather than a one off event (Wylleman, Lavallee, & Alfermann, 1999). Specific to sports, Coakley (2006, p2) describes career transition as “a complex, multidimensional process.” Throughout an athletic career, athletes typically face several different transitions. For example, athletes can transition from junior to senior sport, to a new club or team or out of competitive sport action. Transitions may be normative in that they are predictable, expected and planned, or non-normative whereby an uncontrollable and unexpected event occurs as a transition trigger (Schlossberg, 1984). Whether they are foreseen or not, transitions elicit many demands that an athlete must cope with in order to adapt successfully (Alfermann & Stambulova, 2007). Non-normative transitions are typically more difficult or stressful, as an athlete is less likely to prepare or plan methods for coping with the unexpected transition (Stambulova, Alfermann, Statler & Côté, 2009). Sports career termination occurs when an athlete discontinues athletic involvement at their current level of practice and competition (Kleiber & Brock, 1992) or changes their sport or speciality (Ristolainen, Kettunen, Kujala & Heinonen, 2011).

During the abovementioned transitions, certain coping strategies may prove to be facilitative for athletes particularly thru a non-normative career transition out of sport. A coping response used to deal with threatening events involves affective, behavioural and cognitive efforts to manage certain external and internal stressors (Lazarus & Folkman, 1984). Coping strategies can be categorized rather broadly as either active or passive

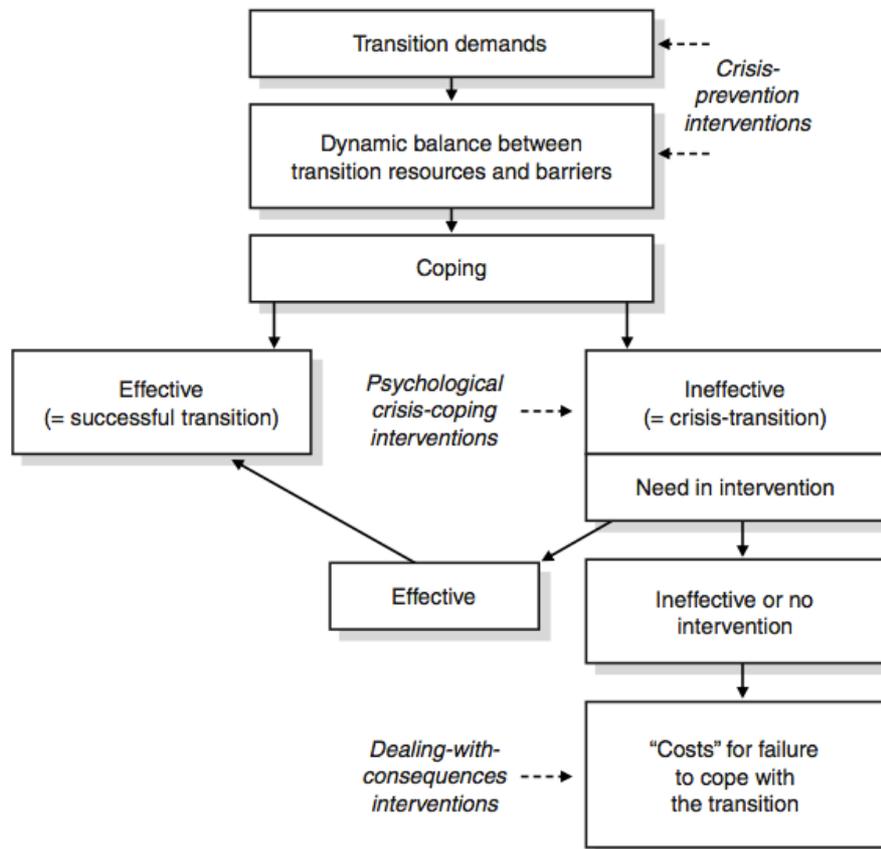
(Stambulova, Stephan & Japhag, 2007). An example of an active response to injury could be following a rehabilitation regime, while avoidance behaviour is a passive strategy. Some examples of adaptive coping strategies include keeping busy, exercising, a new career focus, and use of social support (Wylleman et al., 1999). Social support, in its simplest form, refers to social interactions aimed at inducing positive outcomes (Bianco & Eklund, 2001). Rees (2007) defines it as including a supportive network, such as friends, family, or teammates that has a positive effect on cognitions, emotions and behaviours. Types of beneficial support during rehabilitation include tangible support, informational support, and emotional support (Udry, 2002). Corresponding examples of these are: providing financial assistance, offering guidance or advice, and showing empathy.

### *Transition models*

Current career transition models used to understand and explain the causal and mediating factors include the athletic career transition model (Stambulova, 1997, 2003) and the conceptual model of adaptation to career termination (Taylor, Ogilvie & Lavalley, 2006; Taylor & Ogilvie, 1994). These models specifically examine the importance of coping resources and mechanisms in positive or maladaptive adjustments to career transition.

The athletic career transition model (Figure 1) by Stambulova (1997, 2003) acknowledges transitions as a process that brings certain demands that an athlete must cope with. This model expanded Schlossberg's (1981) human adaptation to career transition model which focuses on the interactional relationship between four main factors: (a) the situation, (b) the self, (c) the available support, and (d) the coping strategies used by the individual during the transition. In order to cope successfully the athlete must effectively mobilise the transitional resources available to them and overcome any barriers they may face. Transition resources include the possession of certain skills or knowledge as well as having a social support network. This model suggests that if an athlete has access to and utilises their transition resources, they can experience a successful transition. However, barriers to transition may arise when an athlete lacks such attributes. A crisis transition may occur when an athlete is ill equipped or unable to overcome transition barriers. If the transition is ineffective, psychological crisis-coping interventions can be used to influence this process, but an

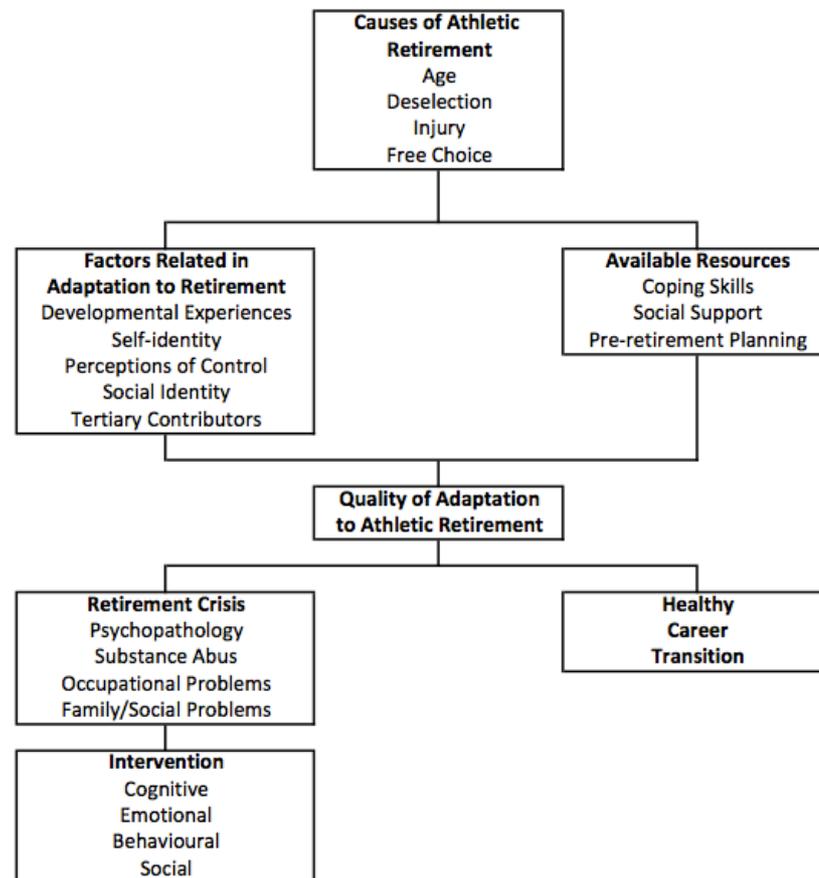
inability to do so results in greater ‘costs’ for the athlete. Although this model provides an overview of the nature of a career transition process, it is necessary to examine factors associated with the quality of a career termination transition for this study.



**Figure 1** The athletic career transition model (Stambulova, 2003)

The four main causes of athletic career termination as put forward by Taylor and Ogilvie (1994, 2001) are age, de-selection, injury and personal choice. These career termination triggers form the first stage out of five in the conceptual model of adaptation to retirement among athletes (Taylor et al., 2006, Taylor & Ogilvie, 1994) presented in Figure 2. The second stage examines the intrapersonal factors that can influence the adaptation process. These include the athlete’s self-concept and self-identity, their degree of control in terminating their career and other personal, environmental and social variables. In the third stage available transition resources are scrutinized. The main resources include social support, various coping skills and post-career planning by the athlete. The fourth stage examines the quality or success of the transition. The interaction of the variables listed in stages one to three can indicate how

an athlete will cope and adjust. Finally, the fifth stage covers any interventions strategies that professionals involved with athletes can employ, if necessary, to assist the transition process or to combat an unsuccessful transition.



**Figure 2** The conceptual model of adaptation to retirement (Taylor et al., 2006; Taylor & Ogilvie, 1994)

It is important to further examine the main factors contained within the first three stages that contribute to either a successful or unsuccessful transition. These are: (a) the freedom of choice to leave competitive sport action along with the predictability of this transition, (b) the level of engagement in post-career planning, (c) identity formation and self-concept, and (d) social support and coping strategies utilized by athletes (Alfermann, Stambulova & Zemaityte, 2004). The ability or opportunity to choose one's own fate facilitates the post-career adaption process through more effective emotional and coping strategies and greater life satisfaction in the post-career (Webb, Nasco, Riley, & Headrick, 1998). Involuntary retirement due to a career-ending injury, for example, is more difficult to manage due to its unexpected nature (Wylleman,

Alfermann & Lavalley, 2004), were more likely to use very passive coping strategies, and they would often seek social support, while more active methods were used by athletes that retired by choice (Stambulova et al, 2007). Ambiguity in this decision may also cause stress and a struggle to come to terms with the final decision (Stoltenburg, Kamphoff & Bremer, 2011; Kerr & Dacyshyn, 2000). Athletes who freely choose to end their career, however, have been shown to experience a smoother, less distressing adaptation (Alfermann, 2000). It could be argued that athletes who have decided to end their careers would be more active in searching for new possibilities for their future career prospects, taking control. In contrast, those whose career ended suddenly or unexpectedly had not thought about or taken this opportunity, particularly if their career was ended prematurely.

Athletes who plan for life after sports adapt faster, feel more positive and satisfied about their life, and experience a smoother transition into the job market and post-career life overall (Alfermann et al., 2004). Sillanpää (2011) conducted a qualitative study examining the career termination of eight Finnish ice hockey players and found that three of them experienced a crisis transition. For two of these three, retirement resulted from a career-ending injury. Their transitions were described as difficult, as they had no pre-retirement planning due to the expectation that they would continue playing for a number of years. In contrast, the other five participants who voluntarily left the sports profession experienced a normative transition accompanied by feelings of freedom and relief – feelings linked to the desire to engage in post-career planning.

Post-career plans also help athletes develop and adopt new, positive identities (Alfermann & Stambulova, 2007), which may be crucial to the adaptation process. Many athletes, especially at elite level, have high athletic identity since their lives, relationships and goals revolve around their sport and career. Athletes with this high athletic experience more difficult transitions since they are reluctant to accept the end of their careers and are more susceptible to depressive symptoms (Alfermann et al., 2004), severe psychological difficulties (Erpic, Wylleman, & Zupancic, 2004) and a greater degree of social and emotional adjustment (Grove, Lavalley & Gordon, 1997). Research shows that athletes who sacrificed being involved in other activities to pursue sport had a self-identity made up almost exclusively of their athletic involvement (Brewer, Van Raalte, & Linder 1993; Lally, 2007; Lavalley, & Robinson, 2000). Therefore, athletes

who almost exclusively pursue their sport career while neglecting other areas of life, such as educational development or building non-sports based social networks, risk experiencing a crisis transition (Baillie & Danish, 1992). In order to adjust successfully, a shift in the athlete's identity must occur, from that of an athlete, to finding a new, satisfactory sense of self (Kerr & Dacyshyn, 2000). However, in spite of these benefits associated with post-career planning, athletes seem to be reluctant to recognize its importance or actively engage with it. In a study by Svoboda and Vanek (1982) 71% of retired athletes had never planned for their retirement while, more recently, Alfermann and colleagues (2004) reported that only 40% of former athletes had planned for life after sport.

## 2.2 Career-ending injuries

Compared to the other reasons for ending sports careers - de-selection, age and personal choice - retirement due to injury is particularly challenging, as athletes are typically not "ready" to retire. In addition to coping with the transition out of sport, athletes must also deal with psychosocial factors related to the injury itself, as well as facing with a range of tertiary influences (e.g., loss of income). Therefore unsurprisingly, this particular exit from sport has been found to have a profound and often detrimental impact on the athlete and their adjustment to the post career. In fact, a career ended by injury results in a more difficult adaptation to the post career than any other cause of career termination (Mayer, 1995). This is particularly true if it causes premature dropout from sport (Bußmann & Alfermann, 1994). Research has shown that athletes can experience a variety of almost exclusively negative emotions when reacting to the reality of a career-ending injury. Such emotions include fear, anxiety, grief, loss of confidence and depression (Alfermann et al., 2004; Lally, 2007; Pearson & Petitpas, 1990).

For athletes involved in elite level competitive sport, injuries may be considered an unfortunate but unavoidable consequence of the stressors and risks athletes expose themselves to. The majority of athletes will encounter and have to cope with multiple or repeated injuries over the course of their sport career. Severe injury rates and patterns have been found to vary, by sport, gender, and type of exposure (Darrow, Collins, Yard & Comstock, 2009). Tucker (1990) suggests that competitive athletes are well equipped both mentally and physically to face stressful situations but athletes can differ greatly in

their capacity to cope with and recover from injury and unwanted transitions. Injury comprises a non-normative event, which can elicit varied reactions from athletes, and therefore research has come to focus on the influential effect of moderator variables (Sandier & Lakey, 1982).

In spite of the research investigating the experiences of career transitions and injuries, studies exploring the psychosocial impact of career-ending injuries are surprisingly limited. Studies that have directly examined the impact of career-ending injuries on athletes' psychosocial adjustment and wellbeing have used restricted samples disregarding elite professional, and elite non-professional athletes. Brock & Kleiber (1994) conducted a qualitative study with former college athletes whose careers ended due to an injury. The results indicated that the athletes felt confused, angry, guilty and isolated, while some of them felt a sense of relief. Moreover, retirement due to injury also had negative effects on their identity and self-esteem after the injury. The same was found in studies on the retirement experiences of former gymnasts who suffered a career-ending injury (Barry, 2008; Kerr & Dacyshyn, 2000). The athletes felt frustrated and angry, and felt alone in the retirement process. In addition, they felt they had experienced a loss, and as such, experienced feelings of depression or sadness. More recently Stoltenburg and colleagues (2011) also used a qualitative approach when investigating psychosocial effects of career-ending injuries among former collegiate athletes. Their results yielded five main themes that were seen as factors influencing the athletes' career transition from sport due to injury: the consequences of injury, availability (or lack of) positive social support, the impact of injury on athletic identity, the nature of injury, and the athletes engagement in pre-retirement planning.

The integrated model of response to sport injury (Wiese-Bjornstal, Smith, Shaffer and Morrey, 1998) shown in Figure 3, demonstrates how personal and situational moderating factors interact with and impact key components involved in injury rehabilitation. These components are the athlete's cognitive appraisals of the injury, and their emotional and behavioural responses to the injury. The outcome of these interactions accounts for the physical and psychological recovery or non-recovery from the injury.

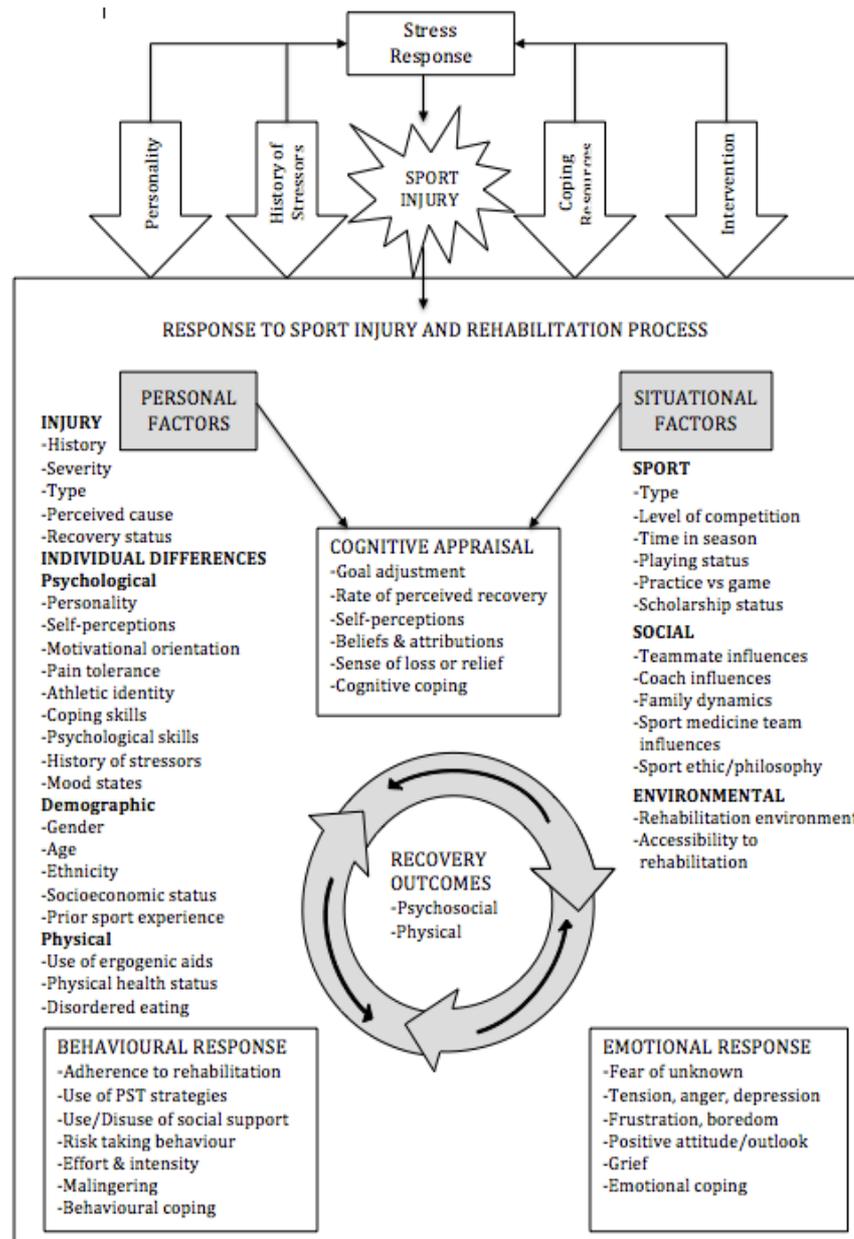


Figure 3 Integrated model of response to sport injury (Wiese-Bjornstal et al., 1998)

Influential personal factors may include the severity of the injury and injury history. An athlete's injury history has a significant impact on how they adjust psychologically to an injury (Gordon, Milios & Grove, 1991). Those suffering a serious injury for the first time have been found to be more at risk of psychological distress than those who have had multiple injuries (Johnson, 1996). The severity of the injury may also have a telling impact on the athlete's experience and quality of transition. A serious injury may prompt psychological stressors and a fear of re-injury, thereby rendering athletes unable or unwilling to return to play (Chimielewski, Jones, Day, Tillman, Lentz & George, 2008). Taylor and Ogilvie (2006) report that a significant number of elite athletes have

injuries so severe as to be debilitating and can majorly affect their quality of life. This trauma and forced adaptation can produce negative emotional reactions in athletes and limit their post athletic life career choices. Other individual factors include athlete personality, coping skills, self-concept and identity. Situational factors that can impact the injury process include the level of competition, social and environmental influences, such as access to rehabilitation facilities.

The individual's unique combinations of these personal and situational factors interact with and upon their appraisals of the injury and their emotional and behavioural reactions. Further, the 'dynamic core' of the model demonstrates how these appraisals and responses interact with each other and how they can change throughout the recovery process. Research has demonstrated that emotional responses over the course of rehabilitation can oscillate greatly, and rarely remains stable (Wiese & Weiss, 1987). These changes are both impacted by concurrent behavioural responses and appraisals and also influence the other two in return. Thus, two athletes can suffer the same injury but depending on their circumstances, they may perceive its impact contrastingly and respond differently reflecting the possibility for either a healthy or an unhealthy outcome. Finally, this model addresses the psychological responses to an injury, an aspect that was not addressed in the transition models discussed. Therefore these models complement each other in a manner that provides a more holistic perspective to examining career termination brought on by injury.

### 3 PURPOSE OF THE STUDY

The purpose of this study was to document the lived experiences of three former professional ice hockey players who have encountered a career-ending sport injury. This study examined the unique mediating factors associated with this type of injury and the resulting emotional, psychological and behavioural consequences. More specifically, the participants told their stories, reflecting on the thoughts, feelings and behaviours they experienced during the sport injury rehabilitation and career transition process.

## 4 METHODS

### 4.1 Participants

The study used a purposive criterion sampling strategy. The participants were three former professional male Finnish ice hockey players who will be referred to by the pseudonyms of Ari, Eino and Heikki. All three competed in the highest league in Finland (Liiga), however in differing playing positions, teams and for different lengths of time. At the time of injury, Ari and Heikki were playing in Finland, and Eino was playing abroad. All three experienced career-ending injuries of a musculoskeletal nature. Time elapsed between the retirement decision and the interviews conducted for this study ranged between six to ten years.

### 4.2 Materials

An interview schedule was developed (see Appendix) based on the conceptual model of adaptation to career transition (Taylor & Ogilvie, 1994), and the integrated model of response to sport injury (Wiese-Bjornstal et. al, 1998). These models were used to guarantee participants the opportunity to discuss a range of aspects potentially relevant to both the psychological reactions to injury and the process of career transition out of professional sport. Questions were divided into three sections. The first section covered the injury experience. A sample question was: “could you describe how your injury happened?” The next section addressed the athlete’s reactions to injury, for example, “how did you feel after the injury?” The final section was set out to examine the overall impact of the injury where participants were asked, “can you describe how the injury impacted your life?” A pilot study was carried out to assess the suitability of the interview guide and to allow the researchers to gain valuable experience in conducting an interview about a potentially sensitive and emotional issue. Following the pilot study, it was decided that the existing interview schedule was sufficient for the purpose of the research.

Also, a brief demographic questionnaire (e.g., age, gender, injury details) and debriefing section were included in the guide. The debriefing section was added due to the emotional sensitivity of the topic under discussion. The participants were asked these follow-up questions in order to assess the potential impact of the interview experience.

### 4.3 Procedures

Access to the sample for this study was gained through personal contacts. Participants were contacted individually and those athletes, who agreed to participate, were scheduled a mutually convenient time for the interview. Once on location, participants were further informed of the nature of the study, they gave their written consent to participate prior to data collection. At this point, the participants were also asked to complete the short, demographic questionnaire (as described above). Upon consent, the one-on-one interviews took place at various locations deemed suitable, and agreed upon by both the researcher and the participants. The duration of each interview session was between 1-1.25 hours with an average interview length of 1 hour and 6 minutes. All interviews were audio recorded.

### 4.4 Data analysis

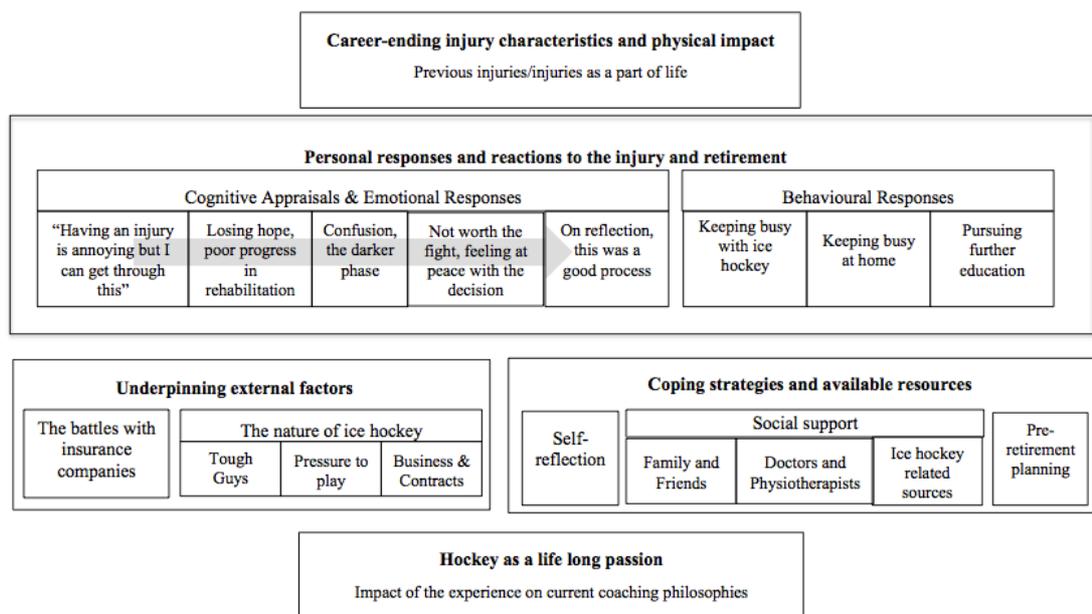
Interviews were transcribed verbatim and pseudonyms (Ari, Eino and Heikki) were used to ensure anonymity. Following prolonged engagement and familiarisation of the transcripts, the data were then analysed within the guidelines and boundaries of Interpretative Phenomenological Analysis (see Smith, Flowers & Larkin, 2009 for a detailed description). During the course of the analysis, initial impressions of meaning were noted on the left margin, which were then, after further examination, categorised into subordinate themes on the right hand margin. These themes were clustered together, where appropriate, as part of an all-encompassing superordinate theme. Finally, the transcripts and their emerging themes were peer-reviewed and triangulated by the supervisory team, and the final themes were mutually agreed upon. This was done to ensure inter-rater reliability and trustworthiness. In addition, the participants were given a chance to review and comment on the main themes contained within their personal interview transcripts. When asked if they would like to add anything, all participants stated that they felt all the necessary points were covered in the interview.

#### 4.5 Ethical considerations

As this research is part of a larger research project, institutional review board approval was gained first from the University of Wisconsin-Milwaukee, followed by approval from the University of Jyväskylä's ethics committee

## 5 RESULTS

The results here represent the lived experiences of three former professional ice hockey players with regards to how they coped with, and battled through career-ending injuries. Overall, the IPA analysis indicated that despite initial feelings of frustration, irritation, and hopelessness, all of the athletes in this study perceived their career transitions as a positive life experience. More specifically, the results section details this journey, how they reacted and rose above, and the factors that shaped them to push through. Figure 4 provides a brief overview of the main themes, with the grey arrow demonstrating a progression through different phases that took place for all three participants.



**Figure 4** The main themes that emerged from the participant experiences

### 5.1 Career-ending injury characteristics and physical impact

All three participants retired from professional sport due to musculoskeletal injuries. All injuries were acute in nature and occurred during what were described as “typical game situation[s].” The initial estimated recovery times for all of the injuries ranged between two to six months however, the athletes committed between 11 and 16 months to rehabilitation efforts, until the final verdict came from their doctors. Moreover, all the injuries required one or more surgeries, depending on the injury. At the time of the interview, which took place several years post career retirement, all three participants

reported being able to execute basic activities of daily life but with certain restrictions. For example, Eino noted, “when it comes to sport and exercise in particular, certain things are not as easy to do as they were before the injury. For years, my back got stiff very easily, and it kind of impacted my daily life...” Heikki stated, “My arm kind of reminds me daily, when it comes to certain things, that it is not as it should be, normal.” For both Heikki and Eino, the physical damage left by the injury is still apparent even after seven years. However, all three participants appear to view the overall physical impact of the injury as being rather minimal, and as something that you “learn to live with.” For example, to keep his back in good condition Heikki described:

I have to do the exercises [...] I no longer do them daily, but I still have the same exercise routine which helps get strength and support to the back. It used to be daily, and I just had to do it if I wanted to be... and play... and still in principle, if I want to be well and feel good I kind of have to do it almost daily.

#### *Previous injuries/injuries as a part of life*

All three participants discussed a myriad of previous injuries, some of which had immediately preceded the injury that ended their career. For them, injuries appeared to be a common occurrence both in hockey and life. Prior to, and even during the career-ending injury rehabilitation process, Ari experienced what his doctor referred to as a “giving away reaction.” He suffered from a four different injuries to different parts of his body (from ankle to shoulder) after another, with an overlap in rehabilitation time for the last two. Eino also stated that there had been “a lot of injuries”, and that the state of being injured “was not a new experience.” Similarly Heikki mentioned having recurrent issues with his back prior to the career-ending injury that would cause him to be “out of the game for short periods of time, to kind of take rest, and sometimes not even be able to skate.” In addition to physical injury Heikki described experiencing a psychological illness in the form of a “burnout phase” at one point in his career. During the interviews, it became apparent that encountering musculoskeletal injuries continue to be commonplace occurrences in their lives beyond athletic careers. At the time of the interview, Eino was recovering from a knee injury and Heikki explained: “Having injuries seems to be the same, whether I play or not... since even now, once or twice a year, for few months at a time, some part of my body is hurting and in pain...”

## 5.2 Personal responses and reactions to the injury and retirement

During the course of the career transition process, all three participants experienced a myriad of changes in relation to their cognitive appraisals and emotional responses to the injury and career transition. The following section first details these different cognitive and emotional phases, and then the participants' behavioural responses throughout the process.

### 5.2.1 "Having an injury is annoying but I can get through this"

In the immediate aftermath of their injuries, all three athletes experienced feelings of irritation and frustration, but remained focused on their rehabilitation. Ari mentioned that "at first I just thought no worries, let's take care of this." Eino found the injury "irritating [...]" but [he] thought, six months and I'll be back." He too remained focused at the beginning and recalled having a sense of "hopefulness." In a similar way, Heikki stated: "I never really had any real negative [thoughts], in a way it was irritating, but, I don't know... I never really got down like that." He also remained focused and looked forward to returning to play, despite having some doubts: "I was pretty sure that this wouldn't end well, I had these hunches that my arm wouldn't, this wouldn't end well, and that I've probably played my last game."

### 5.2.2 Losing hope, poor progress in rehabilitation

Following these initial reactions, it became apparent that as the rehabilitation "didn't progress like before" (Ari), their thoughts and emotions became more negative. More specifically, the realization of the true severity of the injury and apparent lack of progress elicited numerous conflicting thoughts and feelings. All the participants expressed these negative appraisals and emotions, even Heikki who had suspected the worst early on in the injury process:

It was pretty clear that, yeah, I had a desire to play, I wanted to play healthy, so of course it, if I'm being frank, I was pissed off, that there was always something, so yeah I kept thinking that if everything could just be all right.

Similar frustrations were shared by Ari, who doubted his ability to play and questioned why his arm was "still not working properly, [since] so much time had passed already."

As with the others, Eino was hesitant about his ability to return as “even at the six month mark, [his] rehab was still a work in progress and it really wasn’t moving forward at all.” The lack of progress, coupled with their desire to return to play resulted in feelings of unfairness, sense of disbelief, confusion, and hopelessness: “Watching others play and not playing myself was really annoying and frustrating” (Eino).

### 5.2.3 Confusion, the darker phase

The phase of losing hope was followed by a darker phase, in which greater levels of confusion, feelings of being burdened, anger, depression, boredom, and disgust became prominent. Many of these were related to adapting to the multitude of changes occurring in their personal and professional lives. The participants felt overwhelmed as they realized that the impact of the injury extended far beyond playing ice hockey. Ari summed this up with: “It was very difficult to understand the situation, the world was upside-down, why did this end [...] it’s not simply an injury that ends a career, all these other aspects are also involved.”

Due to the new challenges that extended beyond the injury and ice hockey, this phase drained a lot of energy from the participants and manifested itself in feelings of depression. Eino recalled this being “a very challenging phase”, and Heikki described that “at the time, life was in some ways very draining, [...] you’d go to a game after getting an injection and being taped up... your arm is taped up and then just ‘dii-dii-dii’, it was just survival.” Further, Ari mentioned that this dark phase “lasted a long time, and it kinda became so muddled in the middle that [he] didn’t have time to deal with the actual pain and anguish of ending [his] career.” Instead of dealing with the injury and its impact on his career, Ari felt:

It was more about dealing with the whole picture, and trying to understand why the medical diagnosis stated that my injury was a birth defect, and why does the notes also say that the client/patient is showing some signs of depression... Well of course I am depressed if I’ve been told that, by the way, your ice hockey career is over.

Eino shared these negative emotions, as for him, “the anguish that was there during that time, the worst anguish came mostly from not having anything to do.” Eino added: “It

was kind of like I had almost lost all hope. It was like even I didn't really believe in it [the recovery] anymore.”

#### 5.2.4 Not worth the fight, feeling at peace with the decision

The dark, negative phase was followed by the acceptance of retiring from professional ice hockey. This was demonstrated in the ways in which the athletes recalled feelings of relief, freedom, stresslessness, and a distinct realization of an opportunity to approach new challenges. From the onset of the injury, Heikki had suspected that it would not heal properly, and also recalled a subsequent game situation where “my arm just ‘flipped’ off of the hockey stick... and then I was thinking... this is not... this is not worth it anymore.”

For Heikki and Eino, the decision to end their ice hockey careers stimulated almost immediate feelings of relief, and a sense of freedom. Heikki explained: “I thought it was fun to not have to go to training and that I... in a way enjoyed the freedom [...] I could just be,” adding on that he was “so relieved to just get out of the rat race [...] the relief was just so great.” Similarly, Eino also expressed much more positive thinking following the decision to retire from ice hockey and he compared it to the earlier phases of the transition as “totally different times” as he was “looking forward to something” and the energy he felt for playing hockey “maybe channelled itself straight to this new beginning.” In contrast, for Ari these feelings of freedom and relief did not emerge until five years after the retirement decision, when he received a positive insurance compensation decision: “It was like ‘yes’ they will pay, and I can re-train myself and, it was then at the latest when I kind of changed from being a hockey player to a student.” From this point on, Ari recalled “having more of a positive outlook on everything and maybe my faith in humanity had returned.”

#### 5.2.5 On reflection, this was a good process

On reflection, all three participants mentioned being satisfied with the outcome of the process and talked about some level of personal growth and contentment with their current situation. Ari felt he had become a more “balanced person” and that the process had “allowed [him] to grow.” Overall, he was “rather satisfied with [his] current situation” and saw the injury process “as more of a source of strength.” Further, he

described a distinct change in his thoughts over the years: “I can say that at the beginning [after retiring from ice hockey], I guess there was this desire to do a little rehab, so, maybe by chance I might get to play somewhere abroad in couple years... but those types of thoughts haven’t crossed my mind in a long while.” While Ari depicted being satisfied with how matters went, Eino went as far as to describe his personal growth and satisfaction with the situation in the following manner:

Sounds crazy, but really, at this moment I feel like it [the injury] was a good thing. I’ve gotten a lot more things into my life and in some aspects... not at the beginning, but now, five years later I feel like I’m a better person than I was back then. In my own opinion I am a better person because I’ve learned to... I’ve developed my own desire to want to develop myself more from a broader perspective, instead of developing just that one thing, which used to be playing hockey.

For Eino, the experience of coping with a career-ending injury and subsequent retirement was a very rewarding one, even stating that he could not imagine himself playing ice hockey as a motivated player today. He feels that there would be “nothing [he] could be concretely continue developing” in his game. Heikki too reflected on his decision to retire in a positive way:

I don’t know if it was a good decision to play injured... my arm is still a bit sore, but otherwise my life is good... so I don’t know. A ice hockey career could end in other ways too, it could end because you are such a bad player that you no longer get any ice time... so maybe the injury was the better option.

Despite Heikki questioning the decisions that may have been instrumental in ending his career prematurely, he also added that his current situation was a good one. He too, like Eino, talked about his experiences in a positive light: “Overall, as the time has gone on, the process of transitioning out of a professional ice hockey, has been, in experience, a demanding yet rewarding process.”

### 5.2.6 Behavioural responses

Throughout the five stages, the participants also displayed certain behavioural responses in addition to cognitive appraisals and emotional responses. Key behavioural responses evolved around keeping busy in various aspects and environments such as keeping busy in the ice hockey environment, keeping busy with family, and pursuing further education and a new career.

During injury rehabilitation, two of the participants remained active within the ice hockey environment. Heikki and Ari were both part of a team whilst undergoing rehabilitation, and even after the final verdict from doctors that their careers were over. They were given the opportunity to remain active in their clubs until the end of their contracts. Ari stated: “I did my part for the team by commentating games and collecting stats for the coaches.” Heikki was in a similar situation: “On game days I was at the rink and was there to help out the coaches.” Heikki also thought that he was “very lucky to be a part of the team, as I could maybe let out some of my frustrations with the situation while I was in the stands during the games.” In contrast, Eino who’s contract was terminated shortly following injury experienced for the most part “a boredom phase,” with nothing to do.

Additionally, more time was spent with family and participants slowly began to distance themselves from the sport and other people. Heikki “kept very busy taking care of two kids under the age of two, so [he] had a lot to do.” Despite having new ways to remain active with the team, he still chose to “to be at home whenever possible, and not go [to the rink].” After his career and involvement with the team ended, he distanced himself from the “hockey world” further: “I processed this whole thing over a year and a half, I kinda, I stayed at home as a stay-at-home dad and hardly watched any hockey.” Ari also mentioned spending more time away from the sport and more time with his child and wife following the injury: “When my playing career ended, then I avoided men’s hockey games ... maybe then watching games made me feel sick, I didn’t want to go.” Eino remained uninvolved with any ice hockey team for over a year from the onset of his surgery, adding that he “was very bad at letting anyone close at that stage, acted in a very business-like manner, and chose to deal with this [by himself], while keeping up a certain public façade.”

Moreover, following the end of their careers all three participants actively sought further education to enter a new profession. This was a move forward that had been initiated prior to their career-ending injuries earlier in their playing careers. While Heikki did not finish high school at the start of his career, he had “already started other studies” before the end of his playing career and continued afterwards. Eino and Ari both had high school degrees, which eventually enabled them to apply to polytechnics from which they earned degrees for their current professions. Related to this, when Eino decided to pursue his studies, “there weren’t a lot of quiet moments after that, there were so many things that were changing.”

Finally, after distancing themselves from the sport to focus on family and further education, they all returned to ice hockey as coaches of youth players. Heikki stayed away from the hockey scene immediately after retirement for 18 months, and then started coaching juniors. For Ari “it was [five years after the injury] that’s when I started to return to hockey. I coach juniors, and I’m involved with the club, trying to help develop it, so I’m not involved with elite athletes, but at the grassroots level.” The transition to coaching was the shortest for Eino, who started during the first year of his studies.

### 5.3 Underpinning external factors

The external factors involved in the participants’ lives before and during their career termination transition played an integral part in their cognitive, emotional and behavioural journeys. These factors have been categorized as follows: the nature of ice hockey, and a battle with insurance institutions.

#### 5.3.1 The nature of ice hockey

Ice hockey as a culture has been a part of the participants’ lives for as long as they can remember, and has played an essential role in shaping them all as athletes and as individuals. This section describes the tough guy mentality and pressure to play, which characterize the ice hockey culture that appeared to influence the participants’ appraisals and responses.

### *Tough guys*

An aspect of ice hockey culture that influenced the injury recovery experience, was the concept of ‘non-sharing’ in which feelings are not talked about and concerns are not shared. The environment was described as one where players put up a “tough guy” façade; essentially they did not talk about their emotions, nor practice self-reflection. Ari mentioned that he “could talk about things [within the team] but not about emotions, we talked about the injury of course, but it was all very superficial.” Also, Eino recalled himself and teammates, “acting like tough guys... but no self growth was going on,” they were just going with the flow. Heikki described ice hockey as “a sport that is so manly, that no one ever complains about anything and everyone is such a tough guy.”

### *Pressure to perform*

Furthermore, participants described a certain pressure to play. Athletes were expected to return to the ice as soon as possible following injury, often much sooner than was recommended and at times even during rehabilitation. After a receiving a hit during a game Heikki mentioned, “my arm went numb, but I kept playing, I finished the game, and then it didn’t move anymore the next day.” Ari had a similar example:

I played some Finnish Elite-league games so that the equipment manager helped me put on my skates because I couldn’t do it due to my arm injury, then before heading out on the ice I’d get so many needles stuck in my arm that half of it was completely numb.

Thus players received help from the support staff to get them on the ice for games. It also appeared to be rather common practice across the sport to return sooner than recommended by doctors, “if the estimated recovery time was between 4 and 6 months, then you’d really rather be in the rink after 3 months, that’s what it’s like for an athlete.” (Ari) Eino stated, “I’m sure we returned back on to the ice sooner than was recommended, often. The coach is such a big authority that if he tells you to bite the bullet, then that’s what you usually do.” Moreover, Heikki described this pressure as both internal and external as he too returned earlier: “Then I went, I kinda forced myself, forced myself to play because I wanted to so badly, and the coach’s speeches [lead to this as well].”

### *Business & contracts*

The aforementioned pressure to perform comes from professional sport being a money driven business and contract issues reflect this. At this level it is “all about the result, so the coaches don’t have a lot of time to think about one guy” (Heikki). Players are very aware that if they are unable to perform, they will eventually lose their spot. When it became clear that Eino would not play for at least six months his “contract with the team was terminated, as it was felt that [he] was of no use for that season anymore.” Both Heikki and Ari recognized that once “your contract ends, and it’s not renewed then you’re kicked out or you jump ship, how you see it really depends on the player,” (Ari) with Heikki adding that “then you were completely on your own.” However, differing from Eino’s situation, the contracts of Ari and Heikki were not terminated in advance. Ari recalled that:

Cutting my contract short was never brought up. I’m sure the insurance policy paid a part of my salary while I was injured and a part of the team, but even after the doctor said that I wouldn’t play again, the team honoured the contract till the end.

Heikki was in a comparable situation as his club at the time “kept a spot open on the team for me throughout my rehabilitation period, I would have had a spot on the team if my arm had healed properly.” Finally, all contract terminations occurred in a professional manner. For Ari, it was a very “natural separation” from the club as he moved back to his home city after his contract expired. Also despite experiencing an early contract termination, Eino too noted that “they took care of it professionally, everything worked out well.” Thus, as an external influence the contractual details involved in the process were clear to all parties throughout.

#### 5.3.2 The battles with insurance companies

All three participants were insured throughout their careers, and upon retirement depended almost solely on the insurance policy payout for financial security. However, as they all discovered, gaining access to this retirement income became an unexpected stressor of its own. The following section examines the proceedings of the participants’ battles with the insurance companies and the resulting consequences.

Dealing with the insurance companies was described as a “battle” by all three, rather than a mutual collaboration. As individuals going up against companies, participants were overwhelmed and intimidated. Ari mentioned feeling “very small, going up against the lawyer army of the insurance company.” Heikki described dealing with them as having to “fight for your rights,” as “claims that seem to be obviously in favour of the client, don’t go through.” Moreover, two of the participants were hesitant to discuss this issue; it was the only topic that made one of the participants ensure that “this [interview] remains anonymous,” adding:

One thing that has made this more difficult, I’m not sure if I can tell you, maybe I won’t [pause] of course it is something that has brought a lot of stress to the process. Athlete insurance and retirement issues, it’s been a, I’m not sure how to say this or if I should bring this up, but the insurance company has added some pressure to the whole situation.

The other stated, “I have to add this, but I’m not sure if this can be used, but the insurance courts made it very difficult for me to get my decision.” There was clear hesitation and uncertainty as to whether they were allowed to talk to others about these particular experiences.

The participants regarded their insurance companies in a very negative light. The actions of the insurance companies seemed to be driven by interests of increasing financial gains, even if it was not fair toward the clients. Ari pointed out that very little was clear from the start as they made “promises that they never ended up keeping,” Heikki stated that he “understands that they have their rules and regulations, and they just want to get rid of us quickly, that’s very clear.” Eino expressed a certain frustration on this matter as, “it’s unbelievable how they try to get out of every situation.” He adds that he “understand[s] that they’re trying to get out of paying so much, but we’re talking about peoples lives [...] The insurance policy costs about 5000€ to 6000€ a year, so they do get plenty of money as it is.”

Moreover, these insurance related issues directly increased the length of the transition process, as procedures and appeals took time. Ari stated: “I got a positive verdict from the insurance company five years after my initial injury. So it was, a very, very long

process and I had to appeal to the insurance court to get a decision in my favour.” In addition, he had had to hire an experienced lawyer, “I had a couple different lawyers, the first one didn’t work out, but the other one knew how to play the game with the insurance company. I mean, [the insurance claim process] is made into this game.” Eino also described his “fight” with the insurance company as lengthy since it was still on going at the time of the interview: “It’s one of the processes that is to some extent still going on... and I’ve lost that, I know it.”

Finally, the proceedings of the insurance issues impacted the education and retraining of all three participants. Heikki mentioned being restricted by the insurance policy, and did not apply for a degree he had wanted to obtain:

I had to think and wonder about how this would play out, if I’d be allowed to study where I wanted to, and then they might say that I’m not allowed to study there. Or then the amount [of financial compensation] that you get, is less than what was originally promised. It’s, it’s tough. It’s a mental pressure and it’s by no means pleasant.

Similarly, Ari had to wait to the end of the court battle when he was told that the insurance company would “pay and you can now re-educate yourself.” Taking part in retraining without the approval of the insurance companies would have led to a breach in the insurance conditions. Eino was under the impression that he would be financially covered throughout his polytechnic studies, however due to another degree he earned while still playing, his insurance payments “suddenly ended.” To this Eino commented: “I find it ridiculous that I would have been better off financially if I’d been less educated. So, this really does not make sense, I think it’s wrong.”

#### 5.4 Coping strategies and available resources

Based on the confusing times and struggles described by the participants, it could be concluded that a retirement crisis took place during their transition out of professional sport. The following section will shed some light on the coping strategies and available resources used during the process.

#### 5.4.1 Self-reflection

The career-ending injury triggered a process of self-reflection and rebuilding oneself for both Ari and Eino. The injury impacted their entire lives, with specific areas being “shattered” completely. For Heikki it was the burnout earlier in his career that had triggered a similar process, and the self-awareness gained then helped him cope with this career transition. The rebuilding process began with self-awareness and reflection, leading them to feel much stronger and happier with how they live their lives.

The participants revealed that without the injury experience, this process of rebuilding might not have occurred. For Eino, prior to the injury “things just happened automatically, and this, stopped that and mixed things up,” helping him reform who he is, and coming to the conclusion that “I’m definitely not an ice hockey goalie anymore.” Ari stated that he “had to examine myself a lot more than if I’d just kept playing,” adding that for him “this was much more of looking at the inner-self, and then surviving daily life.” Finally, Heikki referred to what he learned from his burnout concluding that: “Yeah, I’ve been able to rebuild myself and kinda, or had to rebuild myself, so in the end it’s quite a small thing, that arm thing and ice hockey.” While the process of self-reflection was triggered by drastic life events, the initial steps towards greater self-awareness came from within, and not an outside party.

#### 5.4.2 Social support

All three participants received a variety of social support throughout the process. This section examines the different sources and how these support networks were perceived and utilized. The support networks of the participants included family, friends, the sport medicine teams, and other ice hockey related parties.

##### *Family and friends*

Family and friends provided the most prominent support. Family members mainly provided the participants with emotional support. Heikki explained that his “wife’s support has been something important, that [he] probably took for granted, just assuming that she’d always be there.” Ari also confided in his wife, sharing his feelings exclusively “at home, and I probably bore too much of a burden there.” Also Eino

perceived that he received “a lot of support” from his parents, girlfriend, her father, and a couple friends. In regards to friends, all three talked about getting together with friends in a similar situation, providing each with additional emotional support in the form of a shared social reality. Eino mentioned one particular person:

I had friend, who was going through a very similar process, different injury, but one that also lead to the end of his professional career. He was a close friend and at that time we were in the same life situation. One difference being that he lived with his fiancée, but we spent a lot of time together, and it was probably quite rough at his place too.

Ari had several injured friends that provided him with “a small support network” in his own neighbourhood. Heikki had a friend end his career a year earlier and another around the same time and they have “always been able to talk about these things and thoughts with each other.” Further, specific friends provided informational support during the process. Heikki received some knowledge regarding retirement insurance proceeding from other former hockey players as explained below:

I’d get some different perspectives, and could pre-empt things. One guy is a year ahead, so I kinda know what’s going to happen and how these things work. In that sense it really helps that we were under the same insurance policy.

During his insurance trial, Ari had personal contacts for advice on how to get past certain bureaucratic barriers. Eino consulted a mentor of his as to whether or not he should pursue a career in coaching. Therefore, none of the participants were in complete isolation with this process, and it is evident that career-ending injuries in ice hockey are not rare occurrences.

#### *Doctors and physiotherapists*

Particularly during rehabilitation, regular contact with the sport medicine team took place, providing participants with tangible and informational support by keeping them up-to-date on the physical recovery of their injuries. Eino had monthly visits to his doctor and weekly or bi-weekly physiotherapist sessions when he would “find out if

something had happened, if there had been progress with rehab.” Similarly Ari recalled: “The physio, massage therapist and the doctor, I had daily contact with at least one of them. They give tools that help you feel better, they are there for you.” Heikki praised his doctor as he received “great support in this, that helped, and I can say that he did a thorough job.” Further, all three felt that their doctors and physiotherapists went out of their way to help out. Heikki’s physiotherapist seemed to go the extra mile as described below:

My physio was surely one, who really helped me with my arm, I have to mention him, he was very important. He even came to my home for sessions! So, if I didn’t make it to the rink, he’d drop by on his way home to help me out.

Comparably, Eino’s club physiotherapist was “very interested” and had Eino transferred to a better rehabilitation hospital, and one where the physiotherapist worked in to ensure that he would be close to Eino throughout the in-hospital rehabilitation period. Ari had two doctors that even aided him in his insurance battle:

Some important people were the two doctors that really helped me. [...] These two helped me out a lot in court, testified for me, operated and moved matters forward for me so that the insurance company understood the situation much better.

#### *Ice hockey related sources*

The participants discussed receiving differing levels of support from their coaches, teammates, agents and the player’s association. Crucial support was received from the player’s association as both Heikki and Eino attended educational programmes provided by them, and Ari said that the “player’s association asked about how I was doing and they gave enough support.”

In contrast, the coaches and teammates played a minimal role for all three. Ari and Heikki were appointed different statistics collecting tasks during rehabilitation, but interactions directly related to the injury were rare. Heikki described that the “hockey world is one where the coach is [up] here and the gap between them and the team is just

so big,” adding that “when I was injured I’d go up to the coach and say ‘yeah, I probably won’t play this season,’ and those were probably the only conversations I had with them.” Eino mentioned that once he was injured, “the club didn’t really care anymore.” Teammates from the clubs were mentioned, but very briefly if at all by the participants:

Mikko was the only teammate who visited me after the surgery, he even dropped by when I was at the rehab hospital. I understand that the team had games going on and practices, so it’s not like they had a lot of time. (Eino)

Only Heikki mentioned receiving the desired support from his agents. In his case they were involved in making some important decisions as is described below:

We did think about whether or not I should keep playing, I mean with my agents, which reminds me, my agents took care of my things in general. They helped me draw up a contract for one season regarding whether I’d play with my broken arm or then go for the surgery, so ... we made that decision.

In contrast, Eino and Ari had the impression that their agents neglected them after they were injured. For Eino, his agent: “Seemed to forget about me quite quickly at the point when I wasn’t bringing in a profit for him,” adding that it bothered him as he was given the impression that “this is how important I was to him, and nothing else.” Also Ari stated: “I probably wasn’t an important player for them, so I was kinda forgotten.” In the end, they saw the role of the agents as “all round non-existent, but I don’t think I needed them in that way.” (Ari) Thus, while the club and the agents were sympathetic towards the participants’ situation, they all worked within the boundaries set by individual contracts. The participants needed to be members of a team to receive all the club benefits.

#### 5.4.3 Pre-retirement planning

Minimal pre-retirement planning took place, leaving the participants unprepared for the practical and psychological aspects of their career-ending injury experiences. Apart from their actions toward retraining, little was done to deal with the logistics following

career termination. They were particularly unprepared for the insurance related matters that took place after retirement, and this task proved to be overwhelming. Ari mentioned: “With insurance matters, I didn’t have any idea of how to go about things, how long I’d have to wait for decisions, or how things would go.” Further, it was only after his career ended that Heikki “had to think about, what will happen.” Eino was also not aware of the details of his insurance policy as he was “suddenly cut-off because they drew upon a clause in my agreement.”

Further, while the participants received excellent care for their physical wounds, they were left to deal with the mental side of the process without professional guidance. The conversations regarding their struggles took place among family and friends, an unstructured environment where certain details were left unshared. This happened to Eino who “spent too much time thinking about these things on my own, I didn’t do what I should have, I could have talked about it even a bit with some people, rather than just in my own head.” As a result, “seemingly small matters grew to new proportions.” During the interview Ari realized that “this is the first time that I’ve talked through this whole thing, and I mean it’s been 10 years,” adding on that his process involved a “doctor, physiotherapist and then the insurance agent who collected the papers” with no one to “take care of the mind.” Finally, Heikki noted how “nothing was really done for the mental side” while he was transitioning.

### 5.5 Hockey as a life long passion

One aspect that was evident throughout was the passion and a love of the game that the participants have for ice hockey. This is shown by their commitment to re-join the sport as coaches. This section documents the impact of their individual transition processes on their current coaching attitudes. Currently, all the participants use athlete-focused approaches with the youth teams they coach. First, they encourage athletes to take initiative and voice their thoughts, ideas and concerns. Heikki mentioned that:

I encourage players, not to play if some part is sore, or hurt. To take care of the injury, there’s no need to ruin anyone’s life over it, because, you will carry them [injuries] with you for the rest of you life, and at this point the responsibility is with the player, so you need to say something.

Adding, “I try to teach honesty to the boys I coach, so that they have the courage to come and talk about anything.” This is in contrast to how he experienced ice hockey as a player, where there was “a large gap” between the players and the coaching staff. Ari shared similar concerns for the overall wellbeing and health of players:

You can’t get your health back in anyway, and it should be taken care of. It might be more difficult to see the whole picture when you’re younger. There’s a difference between being healthy and in game condition. You need to remember that guys can still play, even if they are very ill or injured, so some patience and awareness, is needed. An athlete, or whoever really, can perform, but if you’re operating at the limit, then the end result is rarely a good one.

Further, his most valued ice hockey memories are of “good friendships and the joys of being active,” and he is “trying to offer these same things to kids, my own kids and other kids too.” Portraying a desire to share with others the joys ice hockey has given him.

Self-reflection and self-development were at the core of Eino’s transition process, and this is an element highly emphasized in his coaching. He urges players “to explore what kind of a [people they] are, to make mistakes and learn more from them.” In his current team, Eino along with the rest of the coaching staff have aimed at “building a team, where no matter what happens, that it can be talked about and players can be themselves.” He sees the team, including all the staff, as a “safety net” for individual players.

## 6 DISCUSSION

Prior to suffering from a career-ending injury, the participants felt like invincible warriors making it in a very demanding profession and lifestyle. Following a shock in their lives, their earlier 'warrior' façade appeared to be much more fragile than any of them could have anticipated. This brought them down, struggling against a daunting incident that impacted their lives. Starting from what was described as the bottom, they began a process of rebuilding themselves, fighting through the pains of rehabilitation, and taking on the setbacks brought on by outside forces that they had not prepared for systematically. Taking time away from ice hockey to explore other areas in their lives before returning back to one of their passions in a new role at the grassroots level to share their knowledge and develop the sport they hold dear.

The purpose of this study was to document the lived experiences of former professional ice hockey athletes who experienced a career-ending sport injury. It was aimed at examining the factors, which influenced the athletes' reactions to the injury and the resulting psychological and behavioural consequences. The experience of a career-ending injury and the transition out of ice hockey was, seen as a physically and psychologically demanding process for the three participants in this study.

The subsequent sections will examine the, main factors involved in the process, the experiences of the participants in light of previous research the practical implications and recommendations, and the strengths and limitations of the current study.

### 6.1 Main factors involved in the process

A multitude of external and internal factors influenced the career termination and injury experiences of the participants. Perhaps the most influential external factors were, the nature of the sport, the complications brought on by the insurance companies, and the participants' extensive social networks. In addition, coping through a process of self-reflection transformed the career transition out of sport into a growth experience

*The nature of ice hockey*

Growing up in the ice hockey environment shaped the participants into professional, hard-working athletes. Throughout their careers, they were encouraged to and supported in undertaking active injury rehabilitation approaches. However, they only addressed the physical side of the injury experience and were only available to the athletes from the clubs while contracts were valid. This focus on the physical over psychological treatment of an injury seems to occur in other sports as well (Arvinen-Barrow, Massey & Hemmings, in press).

Further, players were often pressured to return to practices and games before full rehabilitation had taken place. Participants cited both personal drives to return quickly, and convincing speeches by coaches that would get them to “bite the bullet” and fight through pain. Following the initial report from their doctors, all three participants had strived to recover sooner than was predicted. When this did not occur, the participants felt frustrated and hopeless. The participants also noted that non-contributing players of a team would eventually be replaced. Furthermore, athletes who do not coincide with certain risk taking behaviour might be perceived as weak by others (Young, White & Mcteer, 1994). Therefore, the ice hockey environment pressured participants to push themselves despite pain to show their ability to hold their position in the team, perhaps adding more physical and psychological strain on their injury experiences.

Moreover, ice hockey is clearly a passion for all three as they returned to this environment as coaches, and this could indicate that the “love of the game” was a source of motivation that kept them going. The sport may have acted as a medium to help players with their injury and career transition processes. When they were unable to play, Heikki and Ari were given other tasks during games and Heikki reflected that he might have started to go through the process in these instances. However, there was a distinct detachment period from ice hockey for the participants that may have proved instrumental for them to reflect in peace and figure out who they are and what the sport and their careers meant to them. As a result of reflection, and passing time (Koukouris 1991), the participants came to the conclusions that they would remain involved with this passion in another role, recognizing their ability to be involved in the development and growth of the sport.

### *Insurance battles*

One external factor that greatly impacted the career transition of the participants' was the interactions with insurance companies. Following the end of their athletic careers due to injury, all the participants assumed that they were financially covered for the near future by their insurance policies, however this did not prove to be quite so simple.

The length of the transition process was extended as a result of the insurance battles since they distracted from the relevant transition processes, limited further education into a new profession, and brought on financial insecurities. These actions greatly limited the amount of control participants had in the situation, they were attempting to move forward into a new stage in their lives but were being held back by these bureaucratic procedures. Athletes with less control over their life, express more negative emotions during the career transition process than those who have more control (Park et al., 2013). Further, athletes who experience financial problems can encounter more difficulties in their transition and have limited opportunities in their post sport life (Lotysz & Short, 2004; Menkenhorst & Van Den Berg, 1997).

The insurance institutions appeared to cause great psychological strain for all the participants as the system was functioning in a manner that caused unforeseen complications and essential was seen as an opponent and limiting force rather than a cooperative party. Prior to the career transitions the insurance companies were viewed as collaborators in this process that would provide the participants with much needed financial security. However in reality it became a source of external stress. It was a factor that took away control from all the participants, and they were forced to abide by many of the restrictions because they did not have other options to fall back on. In sum, to gain access to the promised financial aid following their athletic careers, the participants had to pay a high toll in psychological distress.

### *Coping Resources*

Throughout their experiences, the participants used various coping strategies including: seeking out social support, self-reflection and keeping busy. Social support networks played an instrumental role throughout the process, with the greatest influences coming from spouses, doctors, and physiotherapists. As such, participants did not express feelings to teammates or coaches. This supports previous findings in which friends and

family, rather than coaches, were the primary source of post-career support (Sinclair & Orlick, 1993; Taylor & Ogilvie, 2001). Further, Eino was the only unmarried participant which could indicate that he experienced a lower degree of perceived support from his girlfriend than Ari and Heikki did from their spouses (Fernandez, Stephan, & Fouqueureau, 2006; McKnight, 1996).

Throughout rehabilitation efforts, doctors and physiotherapists provided tangible, informational and emotional support. In regards to the physical side of rehabilitation, the participants were able to trust their sport medicine teams and did not need to worry about the quality of their care. Moreover, this supports the findings of Clement, Arvinen-Barrow and Fetty (in press) that athletes seek out support from physiotherapists and doctors in matters relating to injury rehabilitation. Emotional support was also provided, as participants were able to talk about their experience during treatment sessions and meetings. Also, each participant knew people going through a similar situation to them, and these informal support groups benefitted all parties involved both with injury rehabilitation (Clement, Shannon, & Connole, 2011; Yang, Peek-Asa, Lowe, Heiden, & Foster, 2010) and the career transition process.

An internal influence in the form of self-reflection proved to be a rewarding coping strategy for all three participants. During their careers the participants had high athletic identities, which is rather common at the elite level (Lockhart, 2010). Through reflection, the participants found out who they were outside their athletic identities and discovered other areas of value. Prior to the drastic life events that triggered this process, they're actions were not guided by self-development but rather by the expectations of them as ice hockey players. By describing this self-reflection process as a time of "rebuilding" the participants gain a tangible aspect to regaining control of their lives, suggesting it took shape in more than as an abstract notion within their minds. In sum, while the process of self-reflection was triggered by drastic life events, the initial steps towards greater self-awareness came from within each individual.

Another adaptive coping strategy was to keep busy both during injury rehabilitation, and following career termination. Keeping busy has been listed as one of the most beneficial strategies following retirement (Sinclair & Orlick, 1993). The participants focused their attention towards other aspects of life outside such as family, and future

career options. By directing their attention toward these areas, they were able to engage in matters that they could partake in, control, and enjoy. Also, these lowered their level of athletic identity as they took part in these activities in a non-athlete role.

Finally, the amount of time passed following the career transition process must be taken into account. Despite initial difficulties, all three participants feel that they have survived their experience and are now able to reflect upon it and view personal growth. The length of adjustment time however, varied greatly for Ari who was still struggling with insurance battles up to four years post-career. In contrast, 18 months after retirement Heikki had returned to the sport, supporting studies that suggest that it takes this amount of time to find balance following career termination (Douglas & Carless, 2009; McKenna & Thomas, 2007).

## 6.2 Career-ending injury experiences in light of theoretical frameworks

This section will relate the findings of the present study to the integrated model of response to sport injury and rehabilitation (Wiese-Bjornstal et al., 1998) and the conceptual model of adaptation to retirement (Taylor & Ogilvie, 1994; 2006). The participants' career transition experiences will be related to the sport retirement model, and then their injury experiences will be linked to the integrated model of response to sport injury.

First, the experiences of Ari, Eino and Heikki will be discussed in relation to the stages of the conceptual model (Taylor & Ogilvie, 1994; 2006). The model identifies personal, social and environmental factors that influence psychological, social, financial and occupational aspects of an athlete's lives. In line with the model, there were several factors particularly related to the process, such as their self-identity, perceptions of control, and some key tertiary contributors. When the initial shock occurred, all three participants highly identified as ice hockey players. Further, while they accepted their fate and lack of control in regards to the injury, planning for and moving on with their lives caused distress, as the insurance companies held all the cards. Significant positive effects came about from their extensive medical and social networks. Thus, findings support the mediating effects of these factors as presented in the model.

Moreover, the model discusses transition resources, which also impact the transition process. These were found in the current study, with the most prominent influences from cognitive coping strategies and a lack of pre-retirement planning. While not systematized, all the participants modified their self-perceptions of their identities and supported this change with behavioural coping by distancing themselves from the ice hockey environment and keeping busy in other aspects of life. As a transition resource, participants implemented pre-retirement planning very minimally, and as such they initiated their retirement process without a guide, forcing them to figure out the logistics of their retirement whilst trying to adapt to their new lives. All participants took educational steps towards preparing themselves for their post-career lives; otherwise their planning was incomplete and unstructured. Regarding the quality of the transition, there were distressing moments which occurred for all three, however all participants were able to battle through and recover from the initial shock.

The final stage observes interventions used, however no systematic psychological interventions took place during the retirement process for these particular athletes. They did note however, that much of the physical rehabilitation, and remaining with the team allowed them opportunities to process the changes occurring in their lives. They found their own ways to handle and work through the retirement difficulties, mediated by individual factors and resources. Finally, while the model addresses many core aspects of the transition out of sport, it fails to address the cognitive and emotional aspects of the retirement process. This is in part covered next as the results will be discussed in relation to the integrated model for response to sport injury.

Supporting the integrated model for response to sport injury and rehabilitation (Wiese-Bjornstal et al., 1998), the results of this study imply that injury rehabilitation process was impacted by both personal and situational factors. Perhaps the most influential personal factors were the participants' motivation orientations, their history of athletic injuries, and their coping skills. In regards to situational factors, the culture of ice hockey, the sport medicine team and the rehabilitation environment, impacted the injury experience the most. The athletes had grown up in an environment where injuries were expected, and excellent medical care was on hand to provide them with tools for recovery. In addition, players were encouraged to take active approaches to rehabilitation, and they were highly motivated to return to play despite these setbacks. It

was these personal and situational factors that dictated how the participants appraised and reacted to the injury (Wiese-Bjornstal et al., 1998).

In this study, the cognitive appraisals and emotional reactions emerged in five distinct stages (see section 5.2), which are comparable to Kübler-Ross's (1969) grief-response model; the most often used model for comparison in sport injury studies (Evans & Hardy, 1995; Walker, Thatcher & Lavalley, 2007). The five-stage model includes, denial, bargaining, anger, depression and acceptance, most of which were supported by findings in the current study. As with earlier research, the athletes appeared to be realistic in their appraisals of their situations and injuries and did not exhibit signs of denial (Udry, Gould, Bridges & Beck, 1997; Walker et al., 2007). The second and third stages of the current study support the stages of anger and depression respectively. In stage two, participants were highly frustrated with a lack of progress, citing the unfairness of the overall situation. From anger, participants moved to feelings of depression, and boredom with thoughts of self-doubt and a loss of belief in recovery/return to play. The final two stages reflect the participants' acceptance of the situation, and their reflections on the benefits and growth that occurred as a result. Other researchers found similar support for these three stages of the grief-model as well (Udry et al., 1997). Unlike Udry et al. (1997) however, only minimal support was found for bargaining. In the current study this presented as thoughts of one day being able to play abroad if enough work was put in. The mixed support for the grief-response model highlights Kübler-Ross' (1969) emphasis on the use of the model as a guide, rather than an exact and absolute model (Evans & Hardy, 1995).

In sum, by utilizing elements from the abovementioned models, potentially relevant aspects of the psychological reactions to injury and athletic career termination may be better understood.

### 6.3 Practical implications and recommendations

Based on the findings of this study, there are several practical implications and recommendations that should be considered by the different parties involved in professional ice hockey. First, ice hockey organizations should recognize the prominence of their role in how players cope with injuries and the related consequences.

While the focus on results and competition encourage an active approach toward rehabilitation, it also creates pressure for players to risk further injury and life-long physical disability for a single game.

Second, an extensive review cited that in 28 out of 29 studies that examined pre-retirement planning as a transition variable, it was positively linked with the quality of the career transition (Park, Lavalley & Tod, 2013). The participants in this study were unprepared for the challenges they had to face following the termination of their careers, and this is an aspect that could be anticipated by players and organizations alike. While the participants did consider alternative career options, the process for executing them was not planned out in advance, leaving them to figure it out as they went along. Thus, systematic guidance and planning should take place to ensure that players are well prepared for the career transition process.

Only one of the participants went through a process of self-reflection prior to his career transition, and for him the injury experience was more stressful than career termination, which resulted in a sense of relief. Thus, self-reflection is a process that should take place at different intervals during any professional career. Through guided self-reflection athletes could develop their self-identities to highlight aspects other than their athletic identity. To support this development, athletes should have access to a social support network outside of his/her sport (Bußmann & Alfermann, 1994) so that there is another avenue to gain self-esteem and a sense of identity.

Finally, the use of sport psychologists would be beneficial to provide a more holistic approach to both injury rehabilitation and career transition. Based on these findings, injured players in Finland remain involved with the team, and are provided with excellent medical care for their physical injuries but little was done for these athletes in preparing them for the psychological challenges associated with injury and career termination. A more multi-disciplinary approach was also encouraged by Clement and Arvinen-Barrow (2013) as it attends psychosocial as well as physical needs and facilitates communication between all those invested in the athlete's recovery.

#### 6.4 Strengths, limitations and future research directions

As with any study, there are several strengths and limitations that need to be considered. The use of the IPA approach and in-depth interviews proved to be one of the study's greatest strengths. Each participant recalled their experiences in great depth leaving the researcher with a plethora of extracts and a thorough understanding of the individual experiences. Also, since the approach was not confined by existing models, new themes emerged which have not been discussed in previous theoretical frameworks. An example being the influence of insurance companies on the career transition process of the participants. Further, the data yielded information that can be utilized in the applied field of sport psychology, as mentioned under *practical implications*. Related to the choice of using IPA, is the inexperience of the researcher with the particular approach. As such possibly limiting the level of analysis of the data to a more superficial level than that of a more skilled analyst. However, essential feedback from qualified supervisors compensated for the researcher's lack of experience.

As this was a retrospective study, it may have been limited by participant's recollection and the potential for recall bias (Lavalley & Robinson, 2007). Thus, the time elapsed since injury may have had an impact on athletes' perspectives of the overall process (Lally, 2007; Wippert & Wippert, 2008). This was supported as the participants of the current study recalled more stress and stronger emotional responses in the initial stages of the process. Therefore, there was only one source of information per participant, which may have limited the amount of information collected. For example, all three participants had difficulties naming behavioural changes and noted that their partners and parents could better answer the question. Future research could consider gathering data from the people closely involved with the athlete.

Finally, a small sport specific sample was used to explore the meaning attached to a career-ending injury experience for each former professional athlete and the influences the sport had on this experience. Due to the size and nature of the sample, the findings cannot be fully generalized to other professional athletes who have suffered a career-ending injury. Thus future research could be conducted using a larger sample, and examine career-ending injuries in different sports, cultural contexts and among female participants.

## 6.5 Conclusion

Due to the nature of the sport, the incidence of injury is common and often expected by players, with the occasional and unfortunate outcome of a career-ending injury. This study focused on the injury and career transition experiences of three former professional ice hockey players. It was found that developing self-identity, access extensive social support networks and finding financial security guided participants toward a healthy career transition. Moreover, a need for sport psychologists during these processes became apparent. These findings may assist professionals involved in the injury recovery process to better understand the psychosocial impact career-ending injuries have on the individual athlete and provide recommendations on how to aid and support the athlete's injury and transition management. Finally, as a result of the career-ending injury the participants of the study have grown from this struggle personally, and it has impacted many other aspects of their lives. The ice hockey community, particularly at the grassroots level, has benefited as a result of the participants finding their own way through this struggle as they can help build an environment that better supports youth and professional athletes of the future.

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## APPENDIX

## Appendix 1: Interview guide

**Urheilu-uran loppumiseen johtaneiden urheiluvammojen psykososiaaliset vaikutukset: Kvalitatiivinen tutkimus***Haastattelurunko*(A) Loukkaantumiskokemus (Nauhoitettu)

- Voisitko kertoa kokemuksistasi urheilun parissa
- Voisitko kuvailla jääkiekko-urasi kohokohtia?
- Kuten tiedät, haastattelussa tulemme keskustelemaan loukkaantumisesta, joka valitettavasti päätti teidän kilpauranne. Voisitko kuvailla mitä tapahtui?

(B) Reaktiot loukkaantumiseen (Nauhoitettu)

- Voisitko kertoa mitä ajattelit loukkaantumisen jälkeen?
- Minkälainen olo sinulla oli loukkaantumisen jälkeen?
- Miten loukkaantuminen vaikutti sinun käyttäytymiseesi?
- Voisitko kuvailla miten olet käsitellyt yllämainitut (ajatukset, tunteet, käyttäytyminen)?
- Voisitko kuvailla seikkoja, jotka vaikuttivat reaktioosi?

(C) Loukkaantumisen vaikutus (Nauhoitettu)

- Voitko kuvailla miten kyseinen loukkaantuminen on vaikuttanut sinun elämääsi?
- Voisitko kuvailla seikkoja tai ihmisiä, joiden uskot auttavan prosessia?
- Voisitko kuvailla seikkoja tai ihmisiä joiden uskot vaikeuttaneen prosessia?
- Nyt, kun olet kerrannut tätä kokemusta, olisiko jokin asia/asioita, joita muuttaisit tai tekisit eri tavalla?
- Olisiko vielä jotain muuta mitä haluaisit lisätä, jotain mitä ette ole vielä kertoneet?

(D) Haastateltavan taustatiedot (Ei nauhoitettu)

- Nimi:
- Pseudonyymi:
- Sukupuoli:
- Ikä:
- Sijainti:
- Urheilulaji ennen loukkaantumista:
- Loukkaantuminen:
- Haastattelun päivämäärä:
- Aloitettu klo:
- Lopetettu klo:

(E) Loppuselvitys (Ei nauhoiteta)

- Miten voit tällä hetkellä?
- Toteutuiko haastattelu sinun odotuksien mukaisesti?
- Voisitko kuvailla tunteita, jotka ilmenivät projektin aikana. Yllätyitkö tietyistä reaktioista, tunsitko helpotusta ym.?
- Miten luulet, että tutkimukseen osallistuminen on (tai ei ole ) vaikuttanut sinuun?
- Onko sinulla mitään kysymyksiä/huolia joissa minä voisin auttaa?