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Running head: THE TEAM APPROACH

THE TEAM APPROACH TO THE PSYCHOLOGICAL REHABILITATION OF
INJURED ATHLETES:

WHAT IS THE COACH'S ROLE ANYWAY?

By

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THESIS

Submitted to the Department of Kinesiology and Physical Education

in partial fulfilment of the requirements for

Master of Science in Kinesiology

Wilfrid Laurier University

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Abstract

The purpose of the study was to gain an understanding of the role of the coach in the recovery of injured youth athletes. Using qualitative methods, the experiences of 11 male coaches of male youth athletes (14-18 years) in competitive football, basketball, and hockey teams, in five Ontario communities were examined. Data were collected through a demographic questionnaire, interviews, and researcher field notes. Three themes emerged through analysis (communication, support and structure, and knowledge of the individual athlete) that suggested coaches contributed to both the physical and psychological recovery of their athletes, as part of a team that also included the athlete, other coaches, trainers, health practitioners and parents. Results are discussed based on these themes, study strengths and limitations, as well as future considerations.

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On a more personal note - Wow! What an adventure. There have been ups and downs and a few unexpected detours along the way but the journey was worth it. Several people have supported me along the way:

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Table of Contents

Abstract	i
Acknowledgements	ii
List of Figures	iv
Introduction	1
Methods	14
Participants	14
Design	16
Data Analysis	20
Trustworthiness	22
Results	24
Discussion	37
Conclusions	45
Glossary	47
Appendices	48
References	59

List of Figures

Figure 1. Factors influencing the interactions between coach and athlete

27

Introduction

Coaches of sport teams have many responsibilities; one of which may include supporting athletes while injured. Before studying the role of the coach in the recovery of injured athletes, it is valuable to understand current sport participation numbers. According to the Sport Participation report, sport was defined as a competitive activity involving two or more participants that occurred at least once per week during the sporting season (Canadian Heritage, 2013). Nearly 70% of young male Canadians (15-19 years) participated in sport in 2010, up 2.6% from five years earlier. This was the highest sport participation rate of all age groups over the age of 15 years across the country. The top five sports for males, in order of highest to lowest participation, were ice hockey, golf, soccer, baseball, and basketball (Canadian Heritage, 2013). Participation in these and other sports does, however, come with risk of injury.

Based on data collected by Statistics Canada in 2009-2010, sport was linked to 66% of the injuries sustained by youth across Canada aged 12-19 years (Billette & Janz, 2011). Further, a survey of over 2500 high school students in Alberta revealed that male and female youth between the ages of 14-19 years had high participation rates in sport, as 94% reported they had participated in sports the year prior (Emery, Meeuwisse, & McAllister, 2006). The top five sports by participation for males were basketball, hockey, football, snowboarding, and soccer. Nearly 66% of all students reported at least one injury in the prior year. There was no significant difference noted between the overall injury rates of males versus females; however, the type of injury varied. Male participants tended to experience more concussions and fractures. Based on reports of the most serious injuries, participation in basketball, hockey, and soccer resulted in the greatest proportion of injuries. As a result of injury, 45% of the individuals reported time loss from sport of at least one week (Emery et al., 2006). Injury and time away

from sport can have varying effects on athletes, including physical and psychological consequences.

Psychological Response to Injury

While recovery from injury involves physical healing, there is also a psychological component to that recovery. The integrated model of the response to sport injury and rehabilitation process proposed by Wiese-Bjornstal, Smith, Shaffer, and Morrey (1998) is a widely accepted example of a comprehensive cognitive appraisal model. It illustrates how pre-injury factors like personality traits, prior stressors, coping strategies, and interventions integrate with post-injury factors including: type of injury; type of sport; and differences in individuals, including social and environmental differences. All of these influence recovery outcomes. The model (Appendix A) suggests that personal and situational factors have an effect on the way an athlete evaluates his or her post-injury situation. This cognitive appraisal can influence and be influenced by the athlete's emotional and behavioural response and in turn have a positive or negative impact on recovery. Wiese-Bjornstal et al. (1998) noted that increased clinical findings point to athletes using injury as an excuse to leave sport because they then feel relief from the stress imposed by parents, teammates, and coaches.

The coach influence is a situational factor noted in the model proposed to influence an athlete's appraisal, and both emotional and behavioural responses post-injury. The athlete's understanding of the support and guidance he or she will receive from the coach can impact how he or she responds emotionally to injury and the manner in which the athlete behaves (e.g., use or disuse of social support; participation in rehabilitation). This in turn has the potential to impact the outcome of recovery.

When athletes sustain an injury they require support and guidance while they recover both physically and emotionally from their injury. Tracey (2003) explored the emotional response to injury, acknowledging the importance of emotions for athletes during their recovery from injury. The framework for her study was the emotional response component of the integrated model of psychological response to injury (Wiese-Bjornstal et al., 1998). Through the use of a qualitative study design the researcher gained a broad understanding of the athletes' emotional response to injury. Ten participants ($M_{age} = 21$ years) were interviewed on three occasions: 72 hours post-injury, one week, and three weeks post-injury; focusing on the interplay between the thoughts they reported and emotions they displayed. Athletes reported an array of negative emotions following injury regardless of the type or severity of their injuries. Fear of re-injury was not reported; however, one week post-injury, athletes did report fear of loss of fitness, independence, asking for assistance, and of losing a spot on the team (Tracey, 2003). Attendance at practice, in some cases mandated by coaches, contributed to their fears and perceptions of decreased fitness and frustration with physical restrictions. These athletes sought and found support from teammates, friends, family, and athletic therapists. Emotions improved for most athletes as they progressed through recovery; however, they also reported feeling some alienation from their team as the weeks progressed. Interestingly, none of these athletes sought social support from their coaches and were hesitant to talk with their coaches about their injuries. These results suggest that coaches may be an important factor influencing injured athletes' cognitive appraisal and emotional response to injury, as suggested in the integrated model (Wiese-Bjornstal et al., 1998).

Importance of the Coach-Athlete Relationship

To better understand how a coach contributes to athletes' social support networks and the psychological impact their involvement can have, several studies pertaining to the coach were reviewed. Studies have been completed on the coach-athlete relationship and the role of the coach that illustrate both the positive and negative influences a coach may have on a healthy athlete or one recovering from injury.

Coaches have many responsibilities that may vary depending on their role as a sole coach or as member of a larger coaching staff. Regardless of context, these responsibilities usually include providing content to allow an athlete to learn the skills and rules of a sport, as well as creating a motivational climate for athletes. Elite athletes (5 male, 2 female, $M_{age} = 25$ years), who completed both a survey and participated in an interview, stated that the team climate impacted their success and noted that a productive team climate where coaches were task oriented and emphasized mastery of skill was important for them (Pensgaard & Roberts, 2002).

In another study, Gearity and Murray (2011) interviewed sixteen current and former high performance athletes (11 male, 5 female) who perceived they had been poorly coached while competing at collegiate, professional, or semi-professional levels of sport. The researchers stated that the study was guided by an existential phenomenology framework in order to allow the athletes to explain their experiences with poor coaches in complete detail. The athletes reported that poor coaching could have a negative impact on their development and success, and could inhibit their mental skills and coping ability. Athletes perceived that negative coaching experiences prevented or slowed their athletic development. In some instances good athletes left their sport because of their inability to cope with a coach. This experience left some athletes with lower self-confidence and impacted their participation and success in sport, as well as their

enjoyment of sport. While the researchers did not conclude that poor coaches caused decreased performance, they did conclude that the actions and behaviours of a coach contributed to poor coach-athlete relationships.

As suggested above, coach-athlete relationships are important. Results of research by Jowett and Cramer (2010) that examined young athletes' (64 male, 109 female, *age range* = 13 to 23 years) relationships with their coaches and parents supported the importance of this relationship. Surveys were used to assess the quality of the athletes' personal and social relationships with their parents and coaches based on dimensions of support, depth, and conflict; and athletes' descriptions of their physical self, relative to their own skill ability, body shape, physiological state, mental competence, and overall performance. Athletes' perceptions of the depth of relationship and provision of support they received from coaches were positively associated with all dimensions of their perceptions of physical self. In contrast, perceived conflict with the coach was a negative predictor of the athletes' perceptions of physiological state and overall competence. Athletes who had longer relationships with their coaches had better opportunities to receive the support they needed or preferred to receive. Overall, the coach-athlete relationship was an influencing factor affecting an athlete's physical self-concept (Jowett & Cramer, 2010).

Further evidence supporting the importance of the coach-athlete relationship was revealed through results of a study by Philippe, Sagar, Huguet, Paquet, and Jowett (2011) that examined the development of this relationship from the perspectives of both the coach and athlete. The participants were eight elite swimmers (4 male, 4 female) and their two coaches (1 male, 1 female) who had been working together for an average of 3.5 years and spent an average of nearly 10 hours/week together. The researchers examined the process of the relationship

development and the meaning it had for both the athlete and coach. In an effective relationship, coaches and athletes developed bonds, cooperation, and a power relationship that evolved from an autocratic, prescriptive relationship into a more personal supportive friendship-based relationship. The evolution in a coach-athlete relationship benefited the athlete's personal growth, mental strength, and athletic development (Philippe et al., 2011). The authors also noted that their findings may have important implications for coach education; it was clear that in order to develop this strong relationship coaches required expert knowledge of their sport, as well as social interpersonal qualities to enable them to communicate with athletes on both personal and professional levels.

Social Support for Injured Athletes

Social support refers to social interactions meant to encourage positive outcomes (Bianco & Eklund, 2001), and the study of social support is complex. Following their review of social support literature, Bianco and Eklund (2001) concluded that the following issues should be considered when completing social support studies: the perception of the intended purpose of a support message or activity versus how that support is received; the content of a support message versus the characteristics of the support activity that influences a health outcome; and that different relationships result in different types of support. With these recommendations in mind they suggested researchers continue work on social support in sport and exercise, including studies examining specific provider/recipient relationships. Following are summaries of research that present both athletes' and coaches' perspectives of social support messaging.

Athletes' perceptions of social support. In a study by Johnston and Carroll (1998), seriously injured athletes (8 male, 4 female, $M_{age} = 21$ years), who had competed at various levels of sport from recreational through to professional, were interviewed in an effort to identify their

actual and preferred providers of several types of social support during recovery from injury. The types of support were discussed in terms of three themes – informational support, emotional support, and practical support. Athletes reported they received appropriate informational support from coaches in the middle stage of their rehabilitation such as advice regarding alternative training methods. During the end stage of rehabilitation they experienced a lack of support from coaches, although they felt coaches would be ideal providers of information at this stage by organizing a physical training program, or discussing challenges to expect during return to competition. Coaches were also identified as both an ideal and actual provider of emotional support, provided the athlete perceived the relationship was close and the coach had the athlete's respect. Emotional support from coaches was considered the most important during the re-entry to sport phase, and particularly useful when, for example, an athlete perceived he or she had had a poor performance. Coaches were not considered preferred or actual providers of practical support; meaning they were not someone who provided personal assistance with daily routine tasks during any phase of rehabilitation. Overall, coaches were perceived to be ideal providers of some types of support, but the type and need for support varied throughout an athlete's recovery from injury.

Robbins and Rosenfeld (2001) examined perceived messages of social support received by athletes using a modified version of the Social Support Survey (Richman, Rosenfeld, & Hardy, 1993). The modified survey included questions related to six (of the eight original) types of social support including listening, task appreciation, task challenge, emotional, emotional challenge, and reality confirmation support. The collegiate athletes (19 male, 16 female) reported satisfaction with the support they received from three members of their support team including head coaches, assistant coaches, and athletic trainers, and the importance they

perceived this support had on their well-being. Social support was perceived differently by athletes depending on the source and timing of the support. Consistent with the findings of Tracey (2003) noted earlier, athletes in the study were more satisfied with the social support provided by their athletic trainers than they were with the support provided by their head and assistant coaches. The athletes also reported support from the trainers had a greater impact on their well-being. The researchers found athletes' perceptions were influenced by what they perceived to be the roles of the members of their social support team.

Robbins and Rosenfeld (2001) also said, consistent with the reports of Bianco and Eklund (2001), that in order for support to be effective there must be a match between what the athlete needed and what the supporter was willing and able to provide. If a supporter was perceived to be influential to an athlete's well-being pre-injury then they would likely be influential during rehabilitation. The athletes had general perceptions of coach and assistant coach responsibilities, but did not always think that those roles did or should include providing support during rehabilitation. Several athletes reported that additional support, particularly task challenge (when the coach provides activities or ideas that test the athletes' thoughts or actions) and task appreciation support (when the coach acknowledges the athletes' efforts) during rehabilitation would have been appreciated from coaches and assistant coaches. The authors suggested that future research in the area of social support and sport injury could include a study of coaches' perceptions of the social support they provide (Robbins & Rosenfeld, 2001).

To gain a better understanding of the roles coaches and teammates played in providing social support to injured athletes, Corbillon, Crossman, and Jamieson (2008) also used a modified version of the Social Support Survey (Richman et al., 1993). They examined all eight types of social support athletes perceived were provided by their coaches and teammates, and

then rated satisfaction, availability, and contribution the support made to their well-being. This study used a larger sample of University student-athletes (46 male, 26 female), than the earlier study. These athletes deemed technical support and listening support were more available from coaches, but tangible support was less available. Of all the support provided by coaches, task challenge and task appreciation support were perceived to contribute most to the athletes' well-being. Further, results revealed that the more athletes perceived any type of support was available, the more satisfied they were with that support. Interestingly, athletes with more experience, more injuries, and who were non-starters perceived they received less social support from their coaches and teammates.

Another study on social support (Clement & Shannon, 2011) expanded on the findings from the earlier studies (Corbillon et al., 2008; Robbins & Rosenfeld, 2001) examining injured college student-athletes' (27 male, 22 female, $M_{age} = 20$ years) satisfaction with the support they received from coaches, teammates, and athletic trainers, again using a modified version of the Social Support Survey (Richman et al., 1993). Consistent with the earlier studies, athletes were more satisfied with support from their athletic trainers than they were with coaches or with teammates; however, coach and teammate ratings were still rated highly for satisfaction and availability of support. Although athletes were most satisfied with the task challenge support provided by coaches over all other types of support that could have been provided, coaches did not always deliver the type of support athletes needed, when they needed it. Among the recommendations for further research, Clement and Shannon (2011) suggested that studies consider using: qualitative methodologies; a broader sampling of athletes at multiple competitive levels, including recreational levels; and that the study of the relationship between actual and perceived support was needed.

These social support studies provided the athletes' perspectives. Results from all of the studies revealed that athletes valued certain types of support from coaches. Therefore it was important to consider the perspective of the coach.

Coaches' perceptions. Elite level coaches in a study conducted by Podlog and Eklund (2007) participated in interviews designed to elicit information regarding coaches' perceived role in assisting athletes through the transition back to sport following injury. These coaches (10 male, 4 female) all had extensive experience working with elite athletes, and represented a variety of individual and team sports. All had worked with at least one seriously injured athlete who had returned to competition. The results suggested coaches were aware that physical, social, and performance stressors needed to be considered during the athlete's transition back to competition. When deciding to return an athlete to sport, elite coaches believed that close communication with health professionals was important and individual athlete differences, such as personality, injury history and severity of injury, pain tolerance, and motivation, were also important considerations. Most coaches provided individual training sessions for their athletes in order to, among other things, monitor their activities, introduce new skills gradually, and help them build confidence. They kept athletes involved in sport in order to help athletes maintain their connection to their team, teammates, and team tactics, while also providing them with opportunity to improve physical skills. Some of the coaches noted that forcing athletes to watch their teammates was not always beneficial because it could result in frustration. These coaches also reported the importance of providing social support, particularly emotional support, tangible support (e.g., goal-setting and referral to appropriate medical professionals), and informational support (e.g., biomechanical and video analysis) to aid the athletes during the transition. Further investigation in a variety of contexts including different sports, sporting levels, and different

countries were recommended in order to gather the perspectives of other coaches (Podlog & Eklund, 2007).

To advance the examination of athletes' needs, Podlog and Dionigi (2010) conducted another study of elite coaches. Similar to the earlier study by Podlog and Eklund (2007), eight coaches (5 male, 3 female) were interviewed to determine their perceptions of the main challenges elite athletes faced, the strategies the coaches used to assist their athletes, and the coaches' understanding of some commonly used strategies for psychological recovery from injury. Coaches perceived that they did have a role as part of a team approach to safeguard the physical and psychological needs of athletes (Podlog & Dionigi, 2010). The coaches' strategies, implemented based on individual athlete needs, were categorized into five key themes: (a) coordinating a rehabilitation team, (b) fostering open communication with athletes and treatment team members, (c) providing social support, (d) positive thinking and goal setting, and (e) using role models. Based on these themes the authors proposed a number of recommendations for coaches. They suggested coaches coordinate a team approach to rehabilitation including knowledge and expertise from various rehabilitation specialists. They suggested that coaches maintain regular contact with their athletes through phone calls and one-on-one meetings with a goal of building trust and rapport, and maintain telephone contact with the rehabilitation team to coordinate return to sport appropriately. They also suggested that coaches implement individualized programs for the athletes with specific progressive goals and appropriate timelines. They recommended coaches incorporate meaningful tasks, which may or may not involve group activities, for the athletes that considers their social involvement with the team and aids in maintaining social identity as an athlete. While the findings of these last two studies provided the elite coach perspective, they left gaps regarding the experiences of coaches at non-

elite levels of competition. These studies were used as a basis for preparing interview questions used in the present study.

Rationale for Study

Based on the review of current literature it was clear that the coach-athlete relationship was important during injury recovery for athletes of various ages and competitive levels of sport (Gearity & Murray, 2011; Jowett & Cramer, 2010; Pensgaard & Roberts, 2002; Philipe et al., 2011). Previous researchers highlighted the importance of social support in an athlete's recovery from injury, and the integrated model (Wiese-Bjornstal et al., 1998) suggested that the coach was a factor influencing recovery. Few studies considered the perspective of coaches regarding the strategies they had implemented to address the psychosocial needs of youth athletes. There was a particular dearth of information related to the coaches of competitive level youth athletes. There are large numbers of youth participating in sport (Canadian Heritage, 2013), and sustaining injury (Billette & Janz, 2011) and there are also a large number of people (athletes, parents, health practitioners, and coaches) invested in their health and well-being. In order to continue to support the athletes and the coaches charged with their development, the purpose of this study was to examine the role of the coach through his experiences working with youth athletes who suffered a moderate to severe injury resulting in time lost from sport participation. The further study of coaches was suggested by earlier researchers (Robbins & Rosenfeld, 2001) who had studied athlete's perspectives of social support.

A qualitative research design was used to complete this research in an effort to gain a rich description of the coaches' experiences (Bogdan & Biklen, 2006; Patton, 2002). Additionally, other researchers (Clement & Shannon, 2011) suggested that future studies consider using qualitative methodologies and study athletic populations at multiple competitive levels.

This study was guided by the following research questions:

1. What did coaches perceive were contributors to a youth athlete's recovery from injury?
2. Did coaches perceive they had a role in a youth athlete's physical or psychological recovery from injury?
 - a) What did coaches perceive they were doing to address the psychological needs of injured youth athletes?
 - b) What did coaches perceive they were doing to address the physical needs of injured youth athletes?
 - c) Who did coaches think should be addressing the physical and psychological needs of injured youth athletes?

Methods

Participants

Following ethics approval (see Appendix B) from the Wilfrid Laurier University Research Ethics Board, eleven participants were interviewed over a three month period. All participants were male although this was not a requirement for participation. In order to take part in the study, participants were required to meet the following inclusion criteria:

1. Participants were coaches who had coached male youth athletes (14 to 18 years of age) in the highest level of competition in their respective sports, and had competed at the regional, provincial, national, and/or international level. The study was limited to coaches of male athletes in an effort to provide more depth to the study; focusing on the experiences of only one sex.
2. All coaches were adults, at least 18 years of age or older.
3. Participants had served as the head or assistant coach of a team sport including hockey, basketball, or football. These sports were chosen based on a higher occurrence of injury and higher participation rates by youth athletes, as reported in the Sport Participation Report (Canadian Heritage, 2013) and by Statistics Canada (Billette & Janz, 2011). Soccer and lacrosse were to be included; however, the researcher was unable to find participants from these sports.
4. Participants had all coached at least one youth athlete who had suffered a moderate-to-severe athletic injury (one which prevented play or practice for more than seven consecutive days) within the previous five years. A moderate athletic injury was defined as one that left an athlete out of full play and practice for 8-28 days and a

severe athletic injury was defined as one that left an athlete out of full play and practice for greater than 28 days (Fuller et al., 2006).

Participants were recruited through purposeful sampling methods from youth sport organizations and clubs in Guelph, Kitchener/Waterloo, Cambridge, and Thunder Bay, Ontario. This method of selection was chosen in an effort to obtain information rich interviews focused on the phenomenon of interest rather than seeking a sample that could produce results that would be generalized to a larger population (Patton, 2002). Participants were initially contacted using key informants, and direct contact. A letter of recruitment providing a description of the study and specific inclusion criteria was distributed to key informants with a request to distribute to coaches, appealing for their participation in the study (Appendix C). Key informants included administrators of sporting organizations, parents with youth involved in sport, and individuals with knowledge of coaches in the targeted geographical areas. Participant recruitment letters were shared through the assistance of key informants and also distributed directly to individual coaches who I knew had been involved in coaching the targeted population (Appendix D). A snowball sampling technique (Bogdan & Biklen, 2006) was used after initial recruitment began as some coaches who were interviewed suggested other participants for the study. Once a coach indicated interest in participating in the study, through email response or telephone call, he was provided with an Informed Consent letter (Appendix E) that provided a detailed description of what was involved as a study participant. Following that, a meeting time and location convenient to the participant and interviewer were arranged. Prior to the interview, participants were provided with a consent form, demographic questionnaire, and a copy of the interview questions. Participants were asked to bring completed forms to the interview; however, the interviewer also brought blank forms for use if needed. Prior to starting an interview all forms were reviewed and

any concerns regarding participation were addressed. Recruitment ended when I noted redundancy in responses. This was the point where no new information was originating through new interviews (Lincoln & Guba, 1985).

Design

This study employed a qualitative research design utilizing a semi-structured interview guide as the primary source of data collection. While in some instances, when little information is known about a particular area, it is useful to survey the population to find a starting point; I personally came from a position of interest in qualitative studies. From personal experience with surveys I have found that I do not generally have one answer that I can provide; answers vary depending on the circumstance. As a result I am interested in knowing more about a person's answer than just the score they choose, and want to know more about why that score was chosen. In qualitative work, it is important to learn from the informants rather than control for them (Krefting, 1990) so completing interviews was deemed appropriate. I did consider taking a quantitative approach to this study as this would enable me to make broader statements about the coach's role; however, I would have needed a much higher number of participants to obtain any statistical power. I searched for surveys but was unable to find any that fit or could be adapted appropriately for this study. I chose not to design a survey as my concern was that I would not be able to construct a survey that was valid and reliable, particularly within the time period required to complete a master's degree. Also, in creating a survey I would be concerned about bias and interpretation. Questioning would need to be specific about psychological approaches to rehabilitation but I was not certain that specific questions in that topic area would resonate with coaches of competitive youth athletes. In this instance I believed the best first approach would be to speak with coaches directly to see what seemed important to them; instead of me trying to

presume what their experience would be. Thus a qualitative approach was taken in an effort to gain more richness, and more depth.

The objective was to examine the coach experience working with injured athletes. According to Bogdan and Biklen (2006), “Researchers in the phenomenological mode attempt to understand the meaning of events and interactions to ordinary people in particular situations” (p. 25). A phenomenological study attempts to describe and understand how people perceive, describe, feel about, judge, remember, and make sense of a certain phenomenon (Patton, 2002). I wanted to learn about the individual experiences of coaches who had worked with injured athletes; therefore, this study was guided by a phenomenological approach. In phenomenology reality is comprehended through embodied experience. Through close examination of individual experiences, phenomenological analysts seek to capture the meaning and common features, or essences of an experience or event (Starks & Brown Trinidad, 2007). So although it is expected that each individual experience will be different, there will be a commonality across experiences, which was of particular interest for the study.

Demographic questionnaire. An author-constructed demographic measure was used to collect data regarding participants’ age, sex, occupation, education, level and type of coach training received, number of years of coaching experience, types of sports coached, and position as coach (i.e., head coach, assistant, volunteer, or paid) (Appendix F). Prior to completing the study it was not clear what demographic information would be relevant to the research results. As a result not all of the information gathered through the questionnaire was analyzed. For example, occupation and education levels were not considered during analysis. This information may be useful if further analysis is completed in the future.

Semi-structured interview guide. Participants were interviewed using an author-constructed semi-structured interview guide (Appendix G) based on the guides used by researchers in their interviews of professional coaches and of parents of elite athletes (Podlog, Dimmock, Miller, & Shipherd, 2012; Podlog & Dionigi, 2010; Podlog & Eklund, 2007). The guide used in the present study followed a similar format (i.e., included warm-up, general interview and wrap-up questions) and included some similar questions; however, most questions were unique and specific to the coach population. For example, Podlog & Dionigi (2010) asked “What types of concerns do athletes have as they make the transition back into sport?” while I asked “What do you feel are the most challenging aspects of recovery for an athlete?” Qualitative methodology sources (Bogdan & Biklen, 2006; Patton, 2002) were also reviewed when constructing the current studies interview questions. The interview was used to obtain meaningful data from the participant in his own words to enable the researcher to develop insight into how that participant interpreted his experiences in coaching injured athletes (Bogdan & Biklen, 2006). Interviews were audio-recorded and transcribed verbatim by the researcher.

Interviews began with rapport building questions and became increasingly focused on coaches’ experiences related to injured athletes. Probing questions were used to follow-up on responses to initial questions. These included questions to elicit more depth from the participants’ responses. In some cases coaches were asked to provide additional detail to expand on their responses, elaborate on their experiences communicating with parents and athletes, contrast experiences with top line and lower caliber players, and in a few cases scenario based questions were used to assist in clarifying interview questions. For example, they were asked to imagine that a player had not shown up for a week since having an injury and explain what would happen on their teams. Probes are beneficial in order for interviewees to expand on their

response and provide further depth and detail (Patton, 2002).

The interview guide, minus the probing questions, was provided to the coaches in advance of the interview to provide them with an opportunity to prepare for the interview. It was anticipated that many coaches would not have discussed or in some cases even thought about the psychological component of injury recovery before this interview so advanced knowledge of the questions provided opportunity for coaches to have a more in-depth conversation. The full interview guide was piloted with two coaches prior to completion of the full study. This trial process allowed for the questions to be assessed for clarity and determined whether they were clear and understandable to the participants. It also allowed the researcher to rehearse the interview and ensure that delivery of the questions occurred in a succinct manner, providing an opportunity to make adjustments prior to conducting the interviews. As a result of the pilot the order in which two questions were asked was adjusted to encourage improved flow of conversation.

Field notes. Field notes were completed before and immediately following interviews as well as ongoing through data collection and analysis. Field notes were used as a way for the researcher to describe people, places, objects, and conversations as well as to provide the researcher an opportunity to record moods, ideas, reflections, strategies, and note patterns or trends that become apparent through review of data (Bogdan & Biklen, 2006). Field notes related to interviews were typed and included at the end of the associated transcript for consideration during analysis.

Data Analysis

Reflexivity. In qualitative research reflexivity encourages the researcher to be aware of the factors impacting her own perspective as well as perspectives of those being interviewed and those who are reported to (Patton, 2002). Preparing to do this research began with a review of where my past experiences may have influenced my perceptions. Reflection occurred before beginning the study as I attempted to remove or at least acknowledge personal bias. As a Kinesiologist by training and profession, both my work and educational experiences have impacted my understanding of injury recovery, and influenced my interest in this research topic. Early in my career I gained experience as an athletic trainer in varsity and club level settings, and went on to gain over 15 years of experience working with clients who suffered from chronic pain and/or mental health issues as a result of work place and automobile injury or other health events. Through these experiences I learned that in addition to physical recovery, there was often a psychological component that impacted a person's recovery and return to function. Further reflexive questioning occurred before, during, and after individual interviews. Through this process I recorded field notes acknowledging how various factors including weather, location, as well as my mood may have affected my perspectives on the interview day. For example, on one occasion during an interview I recalled thinking I had heard the coach's responses before; they seemed similar to other coaches and I felt I could predict what or how he may answer the next questions. In this moment it was necessary for me to bracket that thought, set it aside, and focus more attentively on what made this coaches experiences his own. These experiences enabled me to improve my awareness of interviewing strategies and skills. Additionally at times my professional and personal experiences also helped me engage with coaches as I understood their

“lingo” when describing experiences working with athletes. As a result of having the insider connection I felt that they shared more of their experiences (Patton, 2002).

Procedures. Audio-recorded interviews were 45-85 minutes in length and were transcribed verbatim by the researcher. Analysis followed a phenomenological approach based on Patton (2002) where “the experiences of the different [coaches] were bracketed, analyzed and compared to identify the essences of the phenomenon” (p. 107) as well as an inductive thematic analysis. Thematic analysis is a method of reviewing data in order to recognize, examine, and report patterns or themes (Braun & Clarke, 2006). A theme represents something in the data that stands out in relation to the research question(s). A step-by-step process was completed in order to identify these themes similar to that outlined by Braun and Clarke (2006). Transcripts were read and re-read multiple times. Through individual transcripts words and phrases were highlighted, notations made, and codes assigned; for example, #communication #who-hp, meant the highlighted section referred to communication with a health practitioner. This content was then clustered into categories, or lower order themes, based on similar patterns. Initially the themes and phrases were compared for each interview question across all participants. At times this method became overwhelming as coaches often spoke at length and their responses often extended beyond the question asked. For example, the answer to one question meant to be asked late in the interview, may have been answered earlier on as part of another response. As a result, the approach to analysis was adjusted and themes were clustered based on the overarching research questions, then compared across participant. Further analysis led to the generation of overall higher order themes. In order to understand how the lower order themes fit into overarching themes mind-maps, diagrams representing connections between codes and or themes, were created, reviewed, and revised (Braun & Clarke, 2006). When differences of theme

were noted between the researcher and her supervisor, further discussion and analysis occurred until the theme was identified, defined, and understood. This was a lengthy process and involved extensive discussion, analysis, and interpretation. The final thematic model logically highlights the data and the researchers are satisfied with the rigour of the analysis and interpretation.

Trustworthiness

To ensure integrity and rigor in the qualitative process the following techniques were utilized. Firstly in the design stage, questions were created based on two interview guides used with professional coaches working with athletes in the return to sport phase, and another used with parents of injured athletes (Podlog et al., 2012; Podlog & Dionigi, 2010; Podlog & Eklund, 2007). These were adapted for use in the present study by reducing the number of questions and adding a question related to policy and procedures.

Secondly, prior to analysis all transcribed interviews were returned to participants for a member check. Each participant was sent his own transcript, via email under password protection, for review to ensure accuracy of data collection. This was done to allow participants to add or delete information to ensure the collected information reflected their experiences as accurately as possible (Bogdan & Biklen, 2006). As outlined in the member check letter (Appendix H) participants were asked to review and return the transcripts within two weeks, and those transcripts that were not returned were accepted as accurate. A follow-up email was sent to participants after one week to remind them that they could provide feedback and make adjustments if the transcripts did not reflect their experiences accurately. Three of the eleven coaches responded, all indicating that the content was accurate. One noted some spelling errors while the other two only offered thanks for the opportunity to participate.

A third strategy, triangulating analysts, occurred during the analysis stage. The researcher and her supervisor independently reviewed the data through all levels of analysis serving in part to reduce bias as well as generate and assess rival conclusions. A third person who was independent of the research project and did not have experience in this field of study was also used to employ the “devil’s advocate” role and challenge themes that had emerged for the other researchers. Having multiple reviews of the data from different perspectives reduced the potential for having bias of a single researcher (Patton, 2002). As noted earlier, when different themes emerged further discussion occurred, clarifications provided, and themes were established. Through discussion and review three major themes were identified. These major themes were also shared with the coaches via email. Coaches were asked to share any questions or comments they had regarding the themes. No response emails from the coaches were received.

Results

Coach Characteristics

A total of eleven participants were recruited and interviewed over a three month period. All were male coaches between the ages of 23 to 53 years ($M_{\text{age}} = 38.8$ years; $SD = 10.8$). Mean age was calculated based on 10 participants; information was not available for one participant. Nine of the eleven participants reported completing education at the college level or higher, and six of those reported completing at least one post-graduate degree or diploma. Coaching experience ranged from 2 to 33 years ($M_{\text{exp}} = 18.5$ years; $SD = 10.8$). All but one participant had national coach certification program (NCCP) training, six at Level 1 and four at Level 2.

Participants were coaches of hockey ($n = 7$), basketball ($n = 3$) and football ($n = 1$) who had coached at least one youth male athlete over the previous five years who had suffered a moderate to severe injury. The criteria required that coaches had worked with at least one injured athlete, but the reality was that many had coached several who had been injured and were able to draw from multiple experiences generally; others focused on a specific case. Seven coaches had suffered moderate to severe injuries themselves, and four reported season or career ending injuries. The participants reported serving various roles on their teams including head coach, assistant coach, and developmental coach. All had coached athletes of various ages and a variety of skill levels including youth competitive level sport. For the purpose of the study, participants were asked to reflect on their experiences coaching youth male athletes between the ages of 14-18 years old who had competed in regional level competition or higher.

Thematic Summary

Analysis occurred through an inductive approach as it is typical to begin with a bottom-up approach in qualitative research; not beginning with a hypothesis to prove or disprove but

rather see what emerges and then group common information together (Bogdan & Biklen, 2006). After repeated review of the interview data, including transcripts and field notes, a search for patterns across interviews was completed. After further discussion with my supervisor three general themes emerged that centred on coaches' perceived role in the recovery of their injured athletes through various coach-athlete interactions. The themes included: (a) communication - the process of sharing information, (b) support and structure – the active ways in which athletes were aided while injured and returning to sport, and (c) knowing your athlete – the individual athlete considerations. Both the higher-order and lower-order themes are presented in Figure 1. Some lower order themes were common to more than one higher order theme as they represent different aspects of the coach-athlete interaction.

Communication. A common theme that emerged through the interviews was the importance of communication. Communication was multi-dimensional and included who the coach communicated with; what communication was shared; and how it was shared. In most cases the communication began at the start of the season when rules and guidelines were shared with athletes regarding team rules. In cases of injury, specific expectations would be reviewed regarding the recovery process and what the coach needed to know in order for return to play or practice to occur. Overall, coaches reported it was important to maintain contact with players while they were out of play due to injury as highlighted by one of the coaches:

I think it's very important that...we continue to interact with them and maybe go a little bit further out of our way to interact so that while they are missing hockey and disappointed by having that taken away, you know they're not worried about 'gosh if I'm gone for 2 months is this guy going to forget who I am as a player.'

That you are still making them feel that they are part of it. (P11)

Communication regarding injury and return to play status occurred directly with athletes more often than through parents because, as expressed by P7, “at that level you know everything that is going on with the kids. ... in their lives and in school, and we ask for that communication with the kids, as opposed to mom or dad communicating with the coaches.” Some coaches stated that feedback from parents was also essential to help them understand how recovery was proceeding. Parents were part of the communication team that could support or refute reports that the players provided. As one coach said “I strictly go by their AT and their parents. I never take the kids word because they are going to want to play.” In other cases coaches noted that parents could also be dishonest in their communication in efforts to expedite their son’s return to play. One example of that was expressed by a coach who said “But now with all of the concussion things we feel more comfortable saying ‘no you need to see a doctor and you need to get the doctor to tell us that your son is okay’.”

Before permitting an athlete to return to play or practice, coaches noted a need to communicate with a person who had the expertise to provide guidance for return to sport planning including a doctor or other health practitioner. Some coaches, suggested that their athletes see a particular practitioner, as P6 recommended, “You have to give them information and most of the time the best person is a professional which is your athletic therapist”. Other coaches were happy to receive advice from any health practitioners. The response below from one coach was similar to several others, noting the importance of a doctor’s note:

Obviously make sure they have a doctor’s note and they are cleared for contact and everything else before we let them back on but at the same time some of them don’t even want to do that. They just want to try to tell us that the doctor said I’m good I can go. But we have to have it documented for sure. (P9)

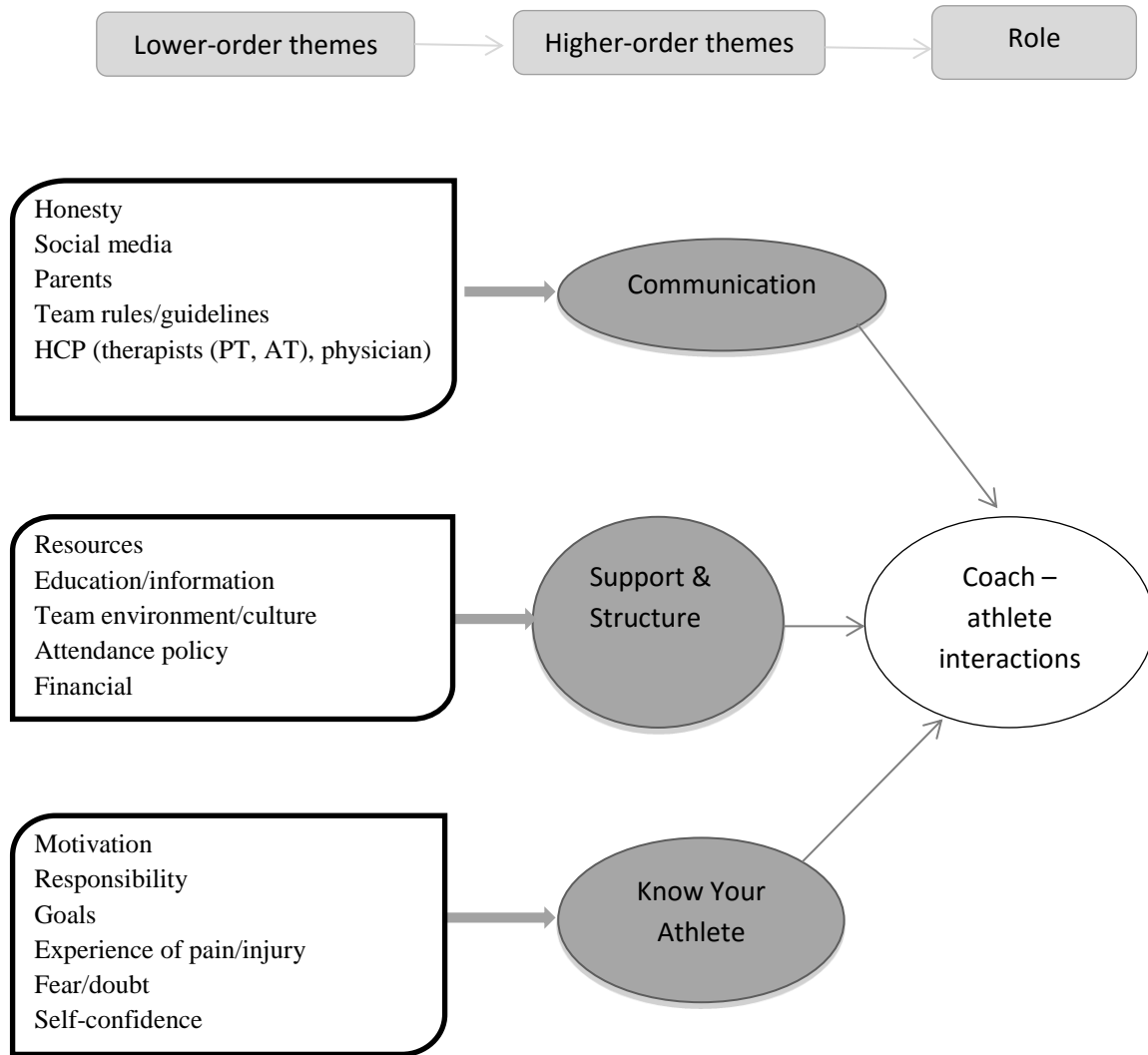


Figure 1. Factors influencing the interactions between coach and athlete.

Coaches who had direction from health practitioners were more comfortable knowing the decision to return to play was not in their hands. Most coaches shared similar sentiments to this coach when he said:

There is no onus on the coaches at all, only on the trainer who is medically trained... It's comforting. At junior you don't have to be worried. The trainer is there and they're going to make the call because you as coaches don't have to worry about it. (P1)

This was echoed by another coach who said:

Who am I to say that we aren't going to do it that way? You don't come over and tell me how to coach; I won't tell you how to rehab the athletes. I'll trust that you know what you're doing and I'll do my thing over here. (P11)

In several cases, such as P9 alluded to earlier, coaches expressed that while they preferred to speak directly with the athletes, there was concern athletes may not always communicate honestly due to a desire to return to play. Some, as highlighted by the following comment of a coach, devised specific ways to question their athletes in order to get clear information from them regarding their injury status.

Again it's multiple questions to make sure that they can't, almost like they can't trick you. 'Cause you ask them once and they can get away with things but if you keep asking them a variety of questions that are kind of the same but re-worded then you'll get the truth out of them. That's often what you're going to have to do. (P3)

Social media, and other electronic communication, was mentioned as one mode that coaches used to maintain contact with athletes. A few coaches stated their expectation was to receive a text or email from an athlete to advise if he would be attending practice. Other coaches

noted that either they personally, or a member of their coaching team, would send out messages to check-in on injured players who had been hurt in a game and required to go to hospital, and to share the updates with the team. One coach even mentioned that he liked to “draw on things that might help the kid” by directing an injured player to the web in order to read about a professional player who had suffered a similar injury and had worked through recovery.

Overall, coaches reported that open, honest, communication contributed to an athlete’s successful or unsuccessful return to play. All coaches acknowledged that some type of coach-athlete communication was a part of their role with an athlete while he was injured. Some admitted that they had little involvement with the athlete if he did not attend practice or games; while others noted that they may have even more opportunity to speak with an athlete if he was injured because they would be “hanging around” practices or helping out during games. While few coaches had a set rule, there was an expectation in most cases that a player would stay connected with the team if possible while injured, in order to remain current with team plans.

Support and structure. In addition to communication, a support and structure theme emerged from the data analysis. This theme represented the ways in which the coach and his staff provided assistance to an athlete while he was out of play. In general, the role of the coach was that of a leader. Coaches provided various types of guidance to athletes including who they could see to get injury specific assistance, sources of reading to see how peers or mentors had return to play success. Coaches set up rules and structure regarding the team’s expectations while unable to play due to injury. Coaches seemed to do this in an effort to let the athlete know the coach cared about him. The coaches also had some expectations that a player would remain involved with their team even when injured. P2 noted, “if you stay away for 6 weeks you are going to know nothing about what we are doing.” They perceived that this kept the athlete in

tune with what the team was doing and helped the athletes remain motivated to return to play, ultimately helping them toward a successful return to play. This was expressed by another coach who said:

I don't think you should force them but if they want... you can be creative and find ways to get them involved. It helps them rehab their injury too right, 'cause they're not just lying around on the coach or feeling sorry for themselves. (P4)

Most coaches perceived that due to what they felt was a good team atmosphere and the athletes' love of sport, the coaches did not have to enforce any participation rules because the athletes always wanted to be there. Some coaches did have specific attendance policies as noted by a coach who commented about his team structure:

It's just making sure they're there right. Still arrive on time, still be there an hour before the game, still be in the room with the guys and maybe you can shift some of those things that the trainer is doing in terms of preparation, like water bottles and stuff like that. Sometimes they even come join us on the bench or close to the bench. Sometimes you give them responsibilities like statistics. Like maybe tonight you'll do my face-off stats and keep track of it. I had one boy recently injured; he did some video for me. So yeah, just keeping them so they feel like a part of it. (P10)

While others encouraged attendance they also perceived they understood why an athlete might not come to practice.

So the kids are out for the year. I encourage them to come to practice but I get why they don't. They know that they're not coming back in to play; but I do care,

I do still want them to feel like they are part of the team. Because they've paid, they've put in enough time so they should be there still. (P3)

More than three coaches noted that there were factors influencing an athlete's return to sport that were out of the coaches' hands, like the financial impact of attending therapy or purchasing supportive braces. Others noted that if players had other issues related to difficulty with school, friends, or family that might impact their emotions, the athletes might not be comfortable talking about it. One coach explained that although he would like to help, "I think that's a good thing but, you're asking a lot of a coach too, who's a volunteer." So while the coach was not prepared to assist with all emotional issues himself, he and others suggested that just coming to the rink and being with the team provided some support to players who were dealing with these issues. A sentiment shared by P7, "I've always tried to keep it fun and light even, 'cause it's not all serious."

The provision of support to athletes was shared by members of the coaching staff. Some head coaches described experiences where they were responsible for providing support and encouragement, but in most cases an assistant coach had this role. Whether acting as head or assistant coach, the provision of support was described in a similar way. If a player was able to participate in practice, support included taking athletes aside during practice to provide specific tasks to assist them in returning to pre-game form. As noted by one coach: "So usually we'll have one coach just take them to a not so traffic area of the ice and just work on some footwork stuff and getting them back to where they should be." A few coaches specifically acknowledged awareness that anxiety could be experienced by the athlete during return to play. P11 expressed it in the following way:

As coaches you always try and give them the opportunity to come back to the role they had when they left because they probably earned that role when they left and you don't want to see them miss out because of an injury. But I think in players' minds there's lots of thoughts like that that go through their head that you know gosh I've been out and since I've been out the other guy who's taken my spot on the power play he's played okay.

Several coaches had return-to-play protocols in place for players, specifically for concussion, that were quite structured. Return-to-play plans for other injuries varied depending on the organization they played for. P8 noted, "It's just been up to us really. Our organization doesn't seem to do anything in terms of that." In all cases where a protocol was in place, the coaches described progressions that were based on physical progressions; however, they did adapt progressions based on their awareness of individual athlete differences. Coaches expressed, as P4 explained here, that "the ones that get the proper advice and take advantage of the situation" and "come back quick, are the ones that are back out at practice."

Know your athlete. This third theme summarized how coaches expressed the importance of understanding and identifying changes in the way their players behaved, and physically performed. Coaches noted that individual athletes could respond differently during injury and recovery. All coaches remarked throughout the interviews that it was important to "know your athlete". This knowledge of both personality and physical abilities prepared them to better recognize changes in player behaviour and performance that, in turn, allowed them to be better prepared to offer help that suited their athletes. This coach, for example, recognized that his player needed to slow his return to play: "Well that was the rapport...and I would go up and tell

somebody quit jerking my chain, you're hurt still. I can tell by your eyes, I can tell by the way you are looking at me, I can tell by the way you're talking to me." The coaches recognized that recovery was based on the severity of the injury, as well as other factors that were related to the personality of the athletes. Another coach, P3, expressed that "they don't think it looks any different but as coaches you see them every day and you see what they can do, so the second that they don't do it at that level then you know that something is going on."

Several coaches noted that teenage boys were not great communicators. One coach mentioned that he followed all of his athletes' Twitter accounts, injured or uninjured. He used this strategy in an effort to remain in-tune with what may be happening in their lives without having to depend on the athlete to verbally share that information. With this knowledge he was better prepared to provide encouragement or support; or at least have a clearer understanding of the player's behaviour and performance on a particular day.

At times, coaches noticed their athletes displayed fear and doubt during their return to play. Some coaches expressed that it may be related to the athlete's previous experience with pain or injury. "Sooner or later ... he'll probably get hit accidentally not expecting it and then he'll realize that he's okay. But just keep giving him that opportunity to have success in recovery, don't shelter him from it." In addition they recognized that self-confidence limited the athlete's return and described experiences similar to the coach's remarks below.

I had somebody with a concussion and once they were cleared, it was a long road... we could tell they were really tentative. They were having some issues with their confidence and worried about being injured. And really there is nothing to be done for that. I mean it was more of a case of us encouraging them and saying "...Whatever it takes for you to get back, is what it takes for you to get

back.... We have confidence in you, we have faith in you and you need to do what you need to do to feel comfortable.” (P4)

Another coach echoed the importance of knowing the athlete:

...their confidence is going to be down and it’s up to us as assistant coaches to just remind them what they are coming back from. And, especially if it’s a serious injury it’s going to take them a little bit longer. They might not be able to do things right off the bat... And no kid likes to be omitted from drills, so sitting there isn’t necessarily fun for them. It could be anxiety provoking but at the same time it’s our job to make sure that they feel that their role on the team is safe. (P8)

Coach-Athlete Interactions

As indicated in Figure 1, the three themes identified above are all factors that impact the interactions coaches have with their athletes. These factors in turn impact the role of the coach. Coaches were clear that they did not work alone when dealing with injured athletes. They relied on input from the athlete as well as some combination of other coaches, health practitioners, trainers, and parents. Their decisions were also guided by league or organizational policies and procedures. Based on coach comments across all sports, they reported both similarities and differences in protocols. Coaches consistently reported having a procedure that they “had to follow” for concussion management. Some reported league policies for reporting other injuries, but in other cases these were developed by individual teams and were not consistent across the league. No specific protocols were identified by coaches that were related to an emotional or psychological response to injury. One coach said “No. not really, no. Social media policy. Head injury policy; but not on that.”

Coaches expressed that they had many responsibilities. Some expressed that while they wanted to do things to support their athletes; they did not always feel they had the time or resources. Several expressed experience in having to balance providing an injured player with support and opportunity but also needing to meet the overall needs of the team. This included the need to adjust lines and potentially player roles to help the team as a whole rather than focusing on the immediate needs or concerns of the individual. While other times coaches expressed they had tried to assist individuals by, for example, putting them into play for a shift or two when they were close to full recovery to enable an athlete to demonstrate his ability to a scout in the stands. In some cases it was mentioned that decisions were made to encourage the 'win'. This was demonstrated through the comments of a coach regarding players return to play after injury:

...I can give you examples that have nothing to do with me just that I've watched with my kids where, in the right circumstances, kids are made to play through that stuff. You know, because they are trying to win....That all comes down I guess to the head coach and the team's philosophy as to what they want to do with someone but, just from my own personal experience, I've never been on a team....where we've ever jeopardized someone's possibility of a longer term injury by putting them out too early. (P5)

Coaches expressed awareness an individual's performance during return to play was one of their responsibilities. The following comment highlights this point, "I think that is a big part of coaching as well. So us being able to identify what their issues are and helping through the process." Another made it clear that he was very pleased that he had a team approach to athlete care:

There is so much going on coaching wise that it's, I think sometimes it's again, unfair I think to expect that the coach can do all those things and keep up to speed on all those things. There is enough going on from a coaching perspective and standpoint during a game that my attention and everything is tied to that, and it's fortunate to be in this spot that I don't have to worry about any of those other things. (P11)

The coach experience demonstrated that their role is diverse and coach-athlete interaction is complex. They recognize the importance of supporting injured athletes; however, there appeared to be some indication that they were not prepared to take that role on alone.

Discussion

The purpose of this study was to examine coaches' experiences in working with athletes who had been injured. The focus was on coaches of youth competitive athletes, a sample that has been under-examined in the literature. A qualitative approach was taken in an effort to learn more about what the coach experience has been for these men while working with injured athletes. Specifically the study was guided by general research questions to learn more about what coaches perceived contributed to a youth athlete's recovery and whether they perceived they played a role in that recovery.

The results were summarized and discussed through a lens that considered the psychological component of injury recovery for athletes. In the integrated model of psychological response to sport injury (Wiese-Bjornstal et al., 1998), coaches have been identified as one of several social situational factors that athlete's appraise post-injury. A coach often serves as a central figure in an athlete's life and their input matters to athletes. According to the model, the athlete's appraisal of their coach involvement could in turn impact the athlete's emotional and behavioural response and ultimately impact his or her recovery from injury. Other studies have provided evidence that from the athlete's perspective the coach is not always someone who is perceived as someone the athlete can discuss their recovery with, which in turn impacts their emotional response to injury (Tracey, 2003). From the elite coach perspective (Podlog & Eklund, 2007), coaches were aware that athlete's experienced a variety of stressors while away from support and the coaches recognized that they could play a role in supporting their athletes through recovery.

The coach role in general is multi-faceted and in the current study results suggested that these coaches of youth competitive sport had typical responsibilities of sharing and teaching the

love of sport in an effort to develop players. In some cases these minor sport coaches in hockey, basketball, and football were focused on improving players' chances to advance to the next level of competition; while other coaches, like those of junior hockey, were focused both on player development and on team success. Despite these differences in objectives, there were many similarities in the role coaches perceived they played in an athlete's recovery from injury.

The importance of communication was a key factor that emerged from the data. Throughout the interviews coaches referred to some sort of communication that was occurring within their team through a variety of methods. Communication was reported by all coaches as a factor influencing their involvement with injured athletes. This was consistent with the findings noted in earlier research focused on coach perspectives (Podlog & Dionigi, 2010) where coaches viewed communication with athletes as essential. A key difference was that those coaches had more opportunity to remain connected to their athletes because they worked in an elite sports institute training world class athletes. In that environment they had the opportunity to engage with their athletes on a much more frequent basis than volunteer coaches of youth teams would have. Additionally, they coached both individual and team sport athletes, and in many cases would have had the opportunity to build a much more intimate coach-athlete relationship over several years to support that communication. As Jowett and Cramer (2010) found, athletes with these increased opportunities to connect with their coaches also had improved opportunities to receive the support they needed during recovery from injury. Further, athletes in an elite sport training environment could also have the opportunity to develop relationships with their coaches that evolved from a prescriptive relationship to more of a partnership (Philippe et al., 2011). As the integrated model of response to sport injury suggests (Wiese-Bjornstal et al., 1998) this could have a positive effect on injury recovery.

The coaches in the present study did not have the luxury of connecting with their athletes as frequently. They noted that keeping communication open, particularly with teen male athletes, could be a challenge if the athlete did not attend practices or did not communicate honestly. They recognized maintaining regular contact was not possible all the time. However, they used other resources, not identified in other studies, like email, texting, Twitter, and parent contact with younger athletes, to remain connected. Coaches noted that they also needed communication in return to understand how an athlete was progressing.

Communication with health practitioners was very important for the coaches in the current study, in order to inform their decisions on how to engage their athletes in practice and play. Coaches made it clear that it was not their responsibility to make decisions on return to play and therefore they needed to receive guidance from others. The importance of communication was similar to that reported by coaches interviewed in two earlier studies (Podlog & Dionigi, 2010; Podlog & Eklund, 2007) where key strategies implemented by coaches included fostering open communication and coordinating a rehabilitation team. The main difference in the studies was the earlier research again involved professional and elite level coaches who were part of a larger sporting organization. With access to organizational resources like physiologists, physiotherapists, and sports psychologists, there is some expectation that those coaches would ensure communication and coordination of a rehabilitation team. With the current study, all coaches were volunteers and had full-time responsibilities outside of their coaching positions. They encouraged players to receive treatment, but did not express that they were the coordinators of the rehabilitation team. Instead, they sought guidance and feedback from others, including the athlete, health practitioner and in some cases the parents, to assist in re-engaging him in activity.

Particularly because obtaining honest communication from teen-aged male athletes was often a challenge, the team approach was important.

In addition to communication, provision of support and structure during injury recovery was something coaches in the current study deemed were factors impacting the coach-athlete interaction and that they provided in their role. The expectation to attend practice or games whenever possible, for example, was suggested to be something that could help the athlete remain connected to the team and engaged in activity. It was also the perspective of most coaches that athletes wanted to be with their team in part because of the positive team environment. Few coaches had a firm rule regarding attendance, but most strongly encouraged it so that players could remain aware of evolving team plays while also working on skills and drills within their physical capabilities. The experiences shared by coaches in the study suggested that the strategies they attempted to employ for injured athletes were consistent with research on coach-athlete relationships. Results of a study by Pensgaard and Roberts (2002), indicated that coaches who provided tasks and encouraged mastery of skill in a positive environment were important to athletes. This finding was not, however, consistent with the perspectives of athletes in the study by Tracey (2003), who reported they did not necessarily want to attend practice or were not comfortable communicating with the coach about their injuries. This suggests that there could be a disconnect between the intended and perceived message that a coach communicates. Through this study I did not ascertain the experience of the injured athlete. In order to determine if there are misunderstandings in messaging provided by coaches, future studies should consider looking at the perspectives from coaches and athletes on the same team during the same season, in order to identify where misunderstandings may occur. Practically speaking, information regarding the challenges of providing support to injured athletes could be shared with coaches in

coach training sessions. Earlier studies have revealed that strong interpersonal and social skills are also important to the creation of a successful coach-athlete relationship in addition to skilled sport knowledge (Philippe et al., 2011), and suggested this information is important to consider for coach education.

Coaches in the current study perceived that they supported their athletes through encouragement and reminders that their athletes were important members of the teams. In the Johnston and Carroll (1998) study athletes reported coaches were good providers of emotional and informational support; however, it was often lacking in the end stage of recovery. There was no clear or consistent structure that the coaches in the current study followed. It varied from coach to coach, but was reported to happen whenever the coach had a chance to engage with his athletes throughout recovery. In several cases the coaches reported that they had more opportunity to speak with athletes, check on their status, and encourage them at the end of recovery because that was when athletes engaged more in practice and play. Perhaps future study could focus on types of support coaches provide such as informational, emotional or practical support, at specific stages of an athlete's recovery. Practical application could include sharing research findings with coaches and perhaps encouraging some type of general guidelines on how to support their athlete when out of play, such as asking an athlete what he needs, or praising him on his efforts as he begins his return to practice and play.

Robbins and Rosenfeld (2001) noted that athletes were more satisfied with the support from their athletic trainers than they were with coaches. Those athletes also noted that task challenge support in terms of providing specific responsibilities that would test their skills during their recovery and/or task appreciation support like encouraging words for the work that they do perform, would be appreciated from coaches. This closer relationship with trainers is not

surprising; at least two coaches in the current study specifically related that athletes tend to spend more time with their rehabilitation team than with coaches. Coaches will only see the athletes when they are at the rink, court, or field. The coaches in the current study reported that they did encourage their players to participate in practice or games however possible. Coaches reported they attempted to provide strategies to help build skill, and involved them as much as possible during practices in games. Not surprisingly, not one of the coaches interviewed in the current study remarked they perceived any dissatisfaction from their athletes in the type of support they provided. In fact, all stated that they felt that in most cases their players wanted to be with their teams because they perceived the athletes enjoyed the environment. It is possible that there could be a disconnect in support and communication particularly at the youth competitive level of sport studied here. Coaches of competitive youth at this level made it clear that their return to play guidelines were guided by a third party who in many cases was never near the sporting arena. This could present a delay in provision of support and it is unclear whether the support the coaches provided was provided at the time their athletes most needed it.

The third theme in the study was the coach's responsibility to know his athletes. On several occasions coaches noted "knowing" their athletes both physically in the way they played, and in the way they communicated and behaved. This information was important to them particularly when helping assist an athlete back into the line-up. Philippe et al. (2011) reported that with improved coach-athlete relationships, there were associated benefits to the athlete including growth, development, and mental strength. The researchers in that study suggested that the coach-athlete bond was built over time, and that the development of this relationship from teacher to more of a supportive relationship was important for coaches to enable them to communicate with athletes about their sport, as well as personally. As stated earlier, they thought

this information could inform coach training. The coaches in the present study frequently mentioned the importance of rapport building and knowing all aspects of the athletes and their lives. While not always the case in minor sport, a number of the coaches in the present study did have the opportunity to work with some of their athletes over multiple seasons, which allowed that relationship to grow. Often in minor sport, the coach will not be permitted to coach the same group of youth as they advance through multiple levels, so the opportunity to build relationships is not the same as coaches of elite athletes. Interestingly, most of the coaches in the current study mentioned that employer-related training or past life experiences influenced the way they worked with their athletes; not from coach specific training. In fact, several coaches reported inappropriate treatment of athletes by other coaches, even from coaches they reported had received the same coach training they had. Perhaps the coach training at lower levels (such as NCCP 1 and 2) may not provide the focus on the importance of a building a rapport and individual needs of an athlete, particularly when it comes to injury recovery.

Coach-athlete interactions with competitive youth athletes are influenced by many factors which impact the role they play. At the competitive minor and junior level sport levels, coaches face a number of challenges that coaches at the elite level do not. They are volunteers with other full-time commitments to work or school. They do not have time or resources to devote to extensive on-going training, and from their reports, training has not included management of injured athletes beyond return to play protocols for head injury. These coaches have reduced opportunity to engage with injured athletes because they only saw the athlete when he attended games or practices. These events did not occur on a daily basis for most teams. Coaches at this level also found themselves working with athletes who have varying motivational levels. Some were committed to advancing to a higher level of development and competition while others on

the team had less intense interest in the sport. Therefore understanding the individual needs of the athletes could be more of a challenge. Despite this, through the experiences expressed by these coaches they were making efforts to engage and support their athletes whenever possible.

Conclusions

The experiences of coaches of youth competitive sport have not been studied extensively and therefore the study contributed to building that research base. With large numbers of children participating in youth competitive sport and sustaining injuries – there are a lot of people (athletes, parents, health practitioners, and coaches) invested in the health and well-being of these children. Additionally, there has been heightened attention in the media in recent years on youth injuries (especially head and knee injuries); there is a need to study this population and the coaches who are charged with the development of these athletes. Current literature includes the perspectives of coaches of elite level athletes who work in elite sport settings with access to many professionals who can assist athletes with the recovery process. The elite level coaches presumably have an enlightened perspective on the experience of an injured athlete during return to sport that volunteer minor sport coaches may not have.

A strength of the current study was that it added the perspectives of volunteer minor sport and junior level coaches in Ontario to the literature currently available. Another unique aspect of this study was that it asked coaches to share their experiences with athletes throughout the recovery from injury, not only during return to sport as other recent literature has examined. It was a qualitative study focused on gaining their personal experiences.

Since there has been little investigation into the coach perspective, no tools currently exist to collect information from large sample sizes. Results from this study are based on the experiences of a small group of male coaches and are not meant to be generalized. Additionally, all participants volunteered to participate in this study and it may be that only ‘good’ coaches were interviewed. Additionally, the study was retrospective in nature therefore some coaches may not have recalled the events exactly as they occurred. More recent experience may have

influenced their responses to questions about experiences further in the past. More depth may have also been achieved if the interviews were combined with an observational study of coaches 'at work' to gain a deeper understanding of their experiences.

Future Considerations

In the future, a survey could be created and larger samples of coaches could be questioned about their experiences working with injured athletes. Results from the coach experiences in this study could be considered when devising a questionnaire. Future studies should also consider the experiences of women coaching both males and females, males coaching females, and of individual as well as team sports.

Data collection for the project was completed in a limited time frame. A future study could explore the experiences of coaches and youth athletes through an entire season to learn about their experiences as they occur. This approach would enable further investigation into potential differences between the intended and perceived message that a coach communicates. Adding a component of observation to that study could add further depth to see if their reports were consistent with their actions.

The present study explored the experiences of eleven coaches to examine the role they perceived they played in the recovery of injured athletes in youth sports. These coaches contributed, as part of a team, to both the physical and psychological recovery of their athletes by engaging in communication with team members (the athlete, other coaches, health practitioners and parents), providing support and structure for their athletes, and by getting to know their athletes. As the integrated model of response to sport injury and rehabilitation (Wiese-Bjornstal et al., 1998) suggests, the coaches in the present study could be considered a factor that influenced their athletes' recovery from injury.

Glossary

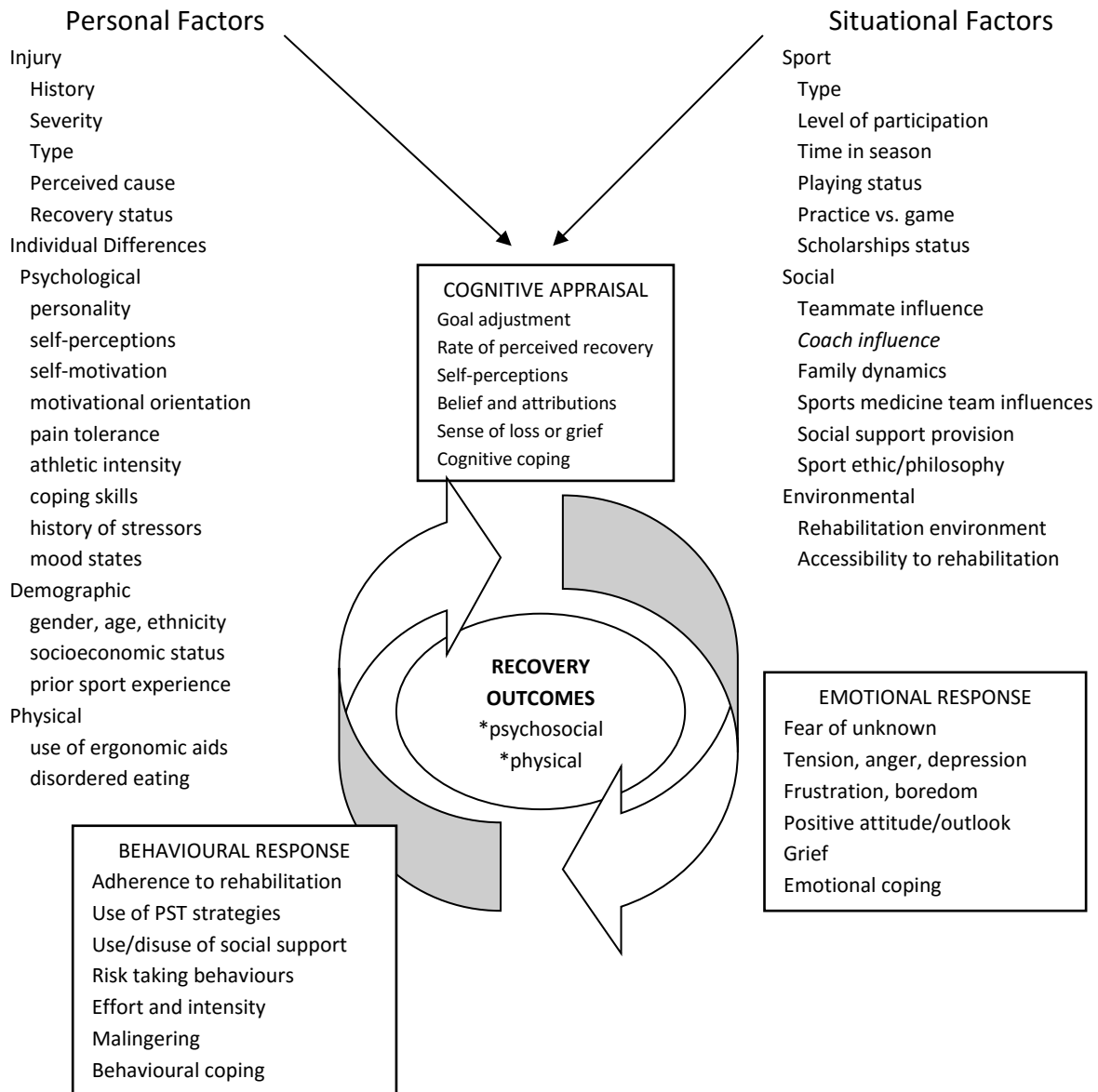
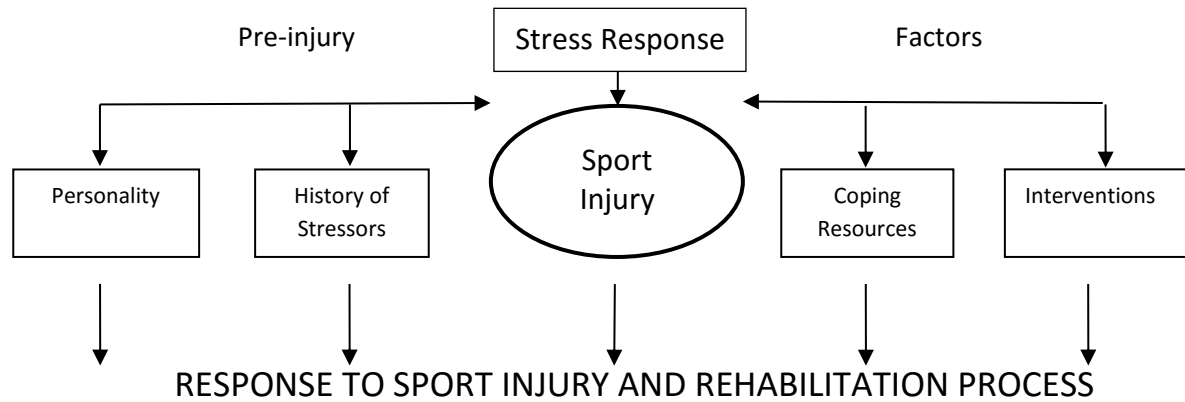
Youth – for purposes of the study youth are described as young people aged 14-18 years.

Competitive youth athletes – for purposes of the study, athletes aged 14- 18 years who participate in sport against teams from other cities within or beyond their local counties, province, or country.

Moderate injury – an injury that prevented an athlete from participating in full practice or play for 8 to 28 days (Fuller et al., 2006).

Severe injury – an injury that prevented an athlete from participating in full practice or play more than 28 days (Fuller et al., 2006).

Appendix A: Integrated Model of Psychological Response to Sport Injury and Rehabilitation Process (Wiese-Bjornstal et al., 1998)



Appendix B: Ethics Approval

REB # 3620

Project, "The Team Approach to the Psychological Rehabilitation of Injured Athletes: What is the Coach's Role Anyway?"

Expiry Date: December 31, 2013

The Research Ethics Board of Wilfrid Laurier University has reviewed the above proposal and determined that the proposal is ethically sound. If the research plan and methods should change in a way that may bring into question the project's adherence to acceptable ethical norms, please submit a "Request for Ethics Clearance of a Revision or Modification" form for approval before the changes are put into place. This form can also be used to extend protocols past their expiry date, except in cases where the project is more than four years old. Those projects require a new REB application.

Please note that you are responsible for obtaining any further approvals that might be required to complete your project.

If any participants in your research project have a negative experience (either physical, psychological or emotional) you are required to submit an "Adverse Events Form" to the Research Office within 24 hours of the event.

According to the Tri-Council Policy Statement, you must complete the "Annual/Final Progress Report on Human Research Projects" form annually and upon completion of your project. All forms, policies and procedures are available via the REB website: <http://www.wlu.ca/research/reb>.

All the best for the successful completion of your project.

Yours sincerely,



Robert Basso, PhD
Chair, University Research Ethics Board
Wilfrid Laurier University

/pb

Appendix C: A Letter of Recruitment to Key Informants

INVITATION TO PARTICIPATE
WILFRID LAURIER UNIVERSITY
REB Tracking Number (#3620)

We are seeking your assistance in recruiting participants for a research study entitled “The Team Approach to the Psychological Rehabilitation of Injured Athletes: What is the Coach’s Role Anyway?” This research study is being conducted by Leanne Smith, under the supervision of Dr. Jill Tracey an associate professor in the Department of Kinesiology & Physical Education at Wilfrid Laurier University. By conducting this study we are attempting to gain a better understanding of the personal experiences of coaches of competitive youth athletes. Specifically, we would like to speak with coaches of athletes who have sustained moderate to severe injuries while a member of the coaches’ teams.

Coaches are often highly involved with their athletes and as a result may be in a position to provide support to athletes during their recovery from injury. We are interested in speaking with male coaches of youth (14-18 years old) top tier hockey, soccer, basketball, lacrosse, and football teams, who compete at the regional, provincial, national or international level to learn about their personal experiences in working with injured athletes. We are seeking your assistance in recruiting coaches for this study based on your experience with or knowledge of coaches in one or more of these sports. Participation in this study will involve the completion of a questionnaire, which will take approximately 5-10 minutes to complete, as well as an in-person interview that will take approximately 45 – 90 minutes to complete. The coach’s participation in this study is strictly voluntary. **If you are aware of potential participants for this study please forward the attached document (invitation to participate) directly or via email to potential participants. If sending by email please include in the subject line “Invitation to Participate in a Research Study” and include any other information you feel is necessary.**

If you have any questions regarding this study you may contact the researchers directly - Leanne Smith, smit4420@mylaurier.ca (519) 856-1268, or Dr. Jill Tracey, jtracey@wlu.ca (519)884-0710 ext. 4216. This project has received Research Ethics Board (REB) approval (3620).

Thank you for your time and consideration of this study.

Sincerely,

Leanne Smith
MSc Candidate, Wilfrid Laurier University
Kinesiology & Physical Education
smit4420@mylaurier.ca
(519) 856-1268

Dr. Jill Tracey
Associate Professor, Wilfrid Laurier University
Kinesiology & Physical Education
jtracey@wlu.ca
(519) 884-0710 ext. 4216

Appendix D: A Letter of Recruitment to Participants

INVITATION TO PARTICIPATE
WILFRID LAURIER UNIVERSITY
REB Tracking Number (#3620)

You are invited to participate in the research study entitled “The Team Approach to the Psychological Rehabilitation of Injured Athletes: What is the Coach’s Role Anyway?” This research study is being conducted by Leanne Smith, under the supervision of Dr. Jill Tracey, as a requirement of the Masters degree in Kinesiology in the Department of Kinesiology & Physical Education at Wilfrid Laurier University. By doing this study the researcher is attempting to gain a better understanding of your personal attitudes and experiences coaching top tier hockey, soccer, basketball, lacrosse, and football youth athletes (14-18 years old) who have sustained moderate to severe injuries (i.e., missing at least 7 consecutive days of practice and/or play) while a member of your team.

Your participation in this study is strictly voluntary and you may choose not to participate without penalty. Participation in this study will involve the completion of a questionnaire, which will take approximately 5-10 minutes to complete, as well as an in-person interview that will take approximately 45 – 90 minutes to complete. The interview will occur in a location of your choice and will be recorded. You will be provided with a copy of the interview questions in advance of our meeting.

If you would like to participate in this study please contact the researchers at your earliest convenience - Leanne Smith, smit4420@mylaurier.ca (519) 856-1268, or Dr. Jill Tracey, jtracey@wlu.ca (519)884-0710 ext. 4216. If you have any questions regarding this study you may contact the researchers directly. This project has received Research Ethics Board (REB) approval (3620).

Sincerely,

Leanne Smith
MSc Candidate
Wilfrid Laurier University
Kinesiology & Physical Education
smit4420@mylaurier.ca
(519) 574-0952

Dr. Jill Tracey
Associate Professor
Wilfrid Laurier University
Kinesiology & Physical Education
jtracey@wlu.ca
(519) 884-0710 ext. 4216

Appendix E: Informed Consent

**WILFRID LAURIER UNIVERSITY
INFORMED CONSENT STATEMENT**

**The Team Approach to the Psychological Rehabilitation of Injured Athletes:
What is the Coach's Role Anyway?**

You are invited to participate in a research study. The study is being conducted by Leanne Smith, graduate student and Dr. Jill Tracey, associate professor, both in the Department of Kinesiology and Physical Education at Wilfrid Laurier University. The purpose of this study is to examine coaches' thoughts about their role in assisting youth athletes who have sustained moderate to severe injuries while a member of your team.

Your participation in this study is strictly voluntary. If you volunteer to participate in this study, we would ask you to do the following:

- To complete a background questionnaire. You will be asked questions about your age, education level, and various questions about the coach training you have received, as well as coach experience you have gained to date.
- To complete an interview to discuss your coaching experiences. You will be asked questions centred on your attitudes and coaching practices related to your involvement with competitive youth athletes (aged 14-18 yrs.) while they are missing time from sport due to injury. A copy of the questions will be provided to you in advance of our interview.
- To review the transcript of your interview. You will be provided an electronic copy of the transcript (you may request a hard copy if preferred) to check for accuracy and to clarify any of your comments. This will serve to verify that you have shared and expressed the information in the manner you had intended. We will ask you to review your transcript then return any questions, concerns or comments to us within 2 weeks of receiving the document. You may send your response to us by email, regular mail, or telephone. If we do not receive a response from you within 2 weeks of us sending you the document we will assume that you do not have any questions and are satisfied with the transcript as it is written.
 - I agree that my transcript may be used without alteration if I do not forward any questions, concerns, or comments to the researchers within 2 weeks of receiving a copy of the transcript. Please sign here.

Participant's signature _____ Date _____

After analysis of the research data we will also be seeking volunteers from the study to review our results, specifically the themes that were identified to emerge from the data. You will be provided with an opportunity to volunteer for this activity when the transcript is sent to you.

All participants will receive a summary of the results of the research project by email after the study is completed.

Participant's initials: _____

The interview will be conducted at your office or an agreed upon convenient location. A telephone interview can be requested if you are unable to meet in person. The interview will take between 45- 90 minutes and will be audio-taped and transcribed by Leanne Smith.

There will be approximately 15-20 participants in the study and all will be interviewed individually. You may withdraw from the study at any time without penalty.

RISKS

The risks are minimal in this study. You will be asked to share personal information about your coaching beliefs and practices so it may be possible that you may feel a loss of privacy, regret over revealing personal information, or possibly emotional upset upon recalling a serious injury one of your athletes experienced in the past; however, since you have given consent and the study has been explained to you we do not foresee this as a significant social or psychological risk. If, however, you feel that they would like to contact a mental health professional please check the Canadian Psychological Association website for a list of licensed professionals in your area (www.cpa.ca). In all cases all information collected in this study is confidential and you have the choice not to answer a question if you choose to do so. You may also withdraw from the study at any point in time and all of your data will be returned to you or destroyed.

BENEFITS

1. By participating in the study, you will contribute to the coaching literature and coach education on issues involved with youth athlete's physical and psychological recovery from injury.
2. You may benefit due to the opportunity that is being provided to share your valuable insights into the integral role you play in youth athlete development at the competitive amateur level.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential. Information will be presented in publications and conference presentations, but will not contain any information that would allow you to be identified. Any quotes or other information from the questionnaires and interviews will not in any way contain any identifying information. Pseudonyms will be used as a way of maintaining anonymity. The data collected from the study will be kept in Dr. Tracey's research office and locked at all times and will be destroyed in five years. The researchers will be the only people to have access to the data from the questionnaires and the interview tapes and transcripts.

COMPENSATION

You will receive no compensation for your participation in this study.

Participant's initials: _____

CONTACT

If you have questions at any time about the study or the procedures, (or you experience adverse effects as a result of participating in this study) you may contact Dr. Jill Tracey at Wilfrid Laurier University, Department of Kinesiology & Physical Education, (519)884-0710 ext. 4216, jtracey@wlu.ca. This project has been reviewed and approved by the University Research Ethics Board (3620). If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Robert Basso, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-1970, extension 4994 or rbasso@wlu.ca.

PARTICIPATION

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study, every attempt will be made to remove your data from the study, and have it destroyed. You have the right to omit any question(s)/procedure(s) you choose.

FEEDBACK AND PUBLICATION

The results of this study will be used for publication in academic journals and various conference presentations. You may request a copy of the results at the conclusion of the study. In order to provide you with a copy you must provide both your full name and contact information. Study results should be ready for dissemination by January 2014.

- I agree to the use of quotations from my interview data used for the purposes of publications and conferences presentations. Please sign here.

Participant's signature _____ Date _____

CONSENT

I have read and understand the above information. I have received a copy of this form. I agree to participate in this study.

Participant's signature _____ Date _____

Investigator's signature _____ Date _____

Appendix F: Demographic Questionnaire

Demographic Questionnaire

Name: _____

Age: _____

Please circle sex: M F

Education:

- Some high school
- Completed high school
- Some college
- College; diploma(s)/certificate(s) earned

- Some university
- University; degree(s) earned & field of study

- Other. Please provide details _____

Highest coaching certification level obtained (i.e. NCCP level 1, hockey)

Were you involved in competitive sport as an athlete, prior to coaching? Yes No

If yes, which sports, at what age, and what competitive level?

What team(s) do you currently coach? Please include sex, age level and competitive level.

What team(s) have you coached in the past 5 years? Please include sex, age level and competitive level.

Are you currently head coach or assistant coach? Please specify title (i.e. assistant coach, defensive line)

What previous coaching positions have you held in the past 5 years?

Is your current coaching position: a) paid or b) volunteer? Please circle

Were your previous coaching positions paid or volunteer? Please specify details.

Appendix G: Interview Guide

**The Team Approach to the Psychological Rehabilitation of Injured Athletes:
What is the Coach's Role Anyway?****COACH INTERVIEW GUIDE**

Introductory questions

- 1) Tell me about your coaching experience.
How long have you coached athletes in competitive sport and why did you get involved?
Have you coached boys or girls teams? Have you coached adult teams?
- 2) What are your objectives/goals for coaching the youth athletes that you coach?
- 3) What is your favourite part about coaching? What have you found most challenging?
- 4) What types of coaching seminars have you participated in?
- 5) Have you had any personal experience with an injury that resulted in you missing time from your sport?

General Questions

- 1) Describe your experiences in coaching injured athletes.
Follow-up: How long ago was it? How many have you coached? What types of injuries did he/she experience, and how did his or her injury occur?
- 2) What do you feel are the most challenging aspects of recovery for an athlete?
- 3) From your perspective what contributes to an injured athlete's recovery and return to sport?
Follow-up: What characteristics or attributes distinguished the athletes who returned to sport more quickly from those who took longer to return?
- 4) Describe any strategies that you are aware of that athletes use to help manage/deal with the stresses of their injury recovery.
- 5) How do you know when an athlete is ready to participate in practice or competition?
Follow-up: What types of participation and performance expectations do you have for athletes while they are out of the line up due to injury?
Follow-up: What role do you see yourself playing in the process?
- 6) Some individual coaches, teams and organizations have policies and procedures in place to assist in the management of injured athletes while others do not. What have your experiences been?

Closing Question

- 1) I've now come to the end of my questions. Is there anything else that you would like to add based on what we have talked about today?

Appendix H: Member Check Follow-up Email

Dear (*insert name*),

Thank you again for your participation in our study. Please find attached a transcript copy of our interview on (*insert date*). The interview has been typed verbatim. Words such as 'um' or 'ah' (etc.) were not edited out because we want to remain true to the interview and data. When we present the data, the ums, ahs and pauses may or may not be removed. Typically when presenting quotes they are edited for grammatical errors.

Please review the transcript. If you have any corrections, additions, or information you would like removed, please use the comment function or track change in the document to do so. If we do not hear from you by (*insert date 2 weeks from interview date*), we will assume the transcript is fine and proceed with our project.

Thank you again for your time.

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