To Tell or Not to Tell? An Exploration of Athletic Injury Reporting

by

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A thesis submitted in conformity with the requirements for the degree of Master of Science
Graduate Department of Exercise Science
University of Toronto

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Abstract

Injury can be a very stressful experience for an elite athlete. To facilitate recovery, it is important to understand the psychological dynamics involved in the injury state. The purpose of this study was to explore the influence of the coach-athlete relationship on injury reporting decisions. Six varsity swimmers from a Canadian university were interviewed about their experiences of athletic injury and the coach-athlete relationship. The data also revealed additional salient factors in the athletes’ disclosure decisions. Interview transcripts were analyzed using a grounded theory approach and several key factors were found: identity, pain, frustration, coping, power, trust, caring/openness, investment, isolation, and atmosphere. These factors were organized into three categories: individual, coach-athlete, and team. The PI-AIR (Psychosocial Influences on Athletic Injury Reporting) model was developed to organize the categories into a single framework. The model is discussed in relation to current theory along with limitations of the study and future directions.
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Chapter 1: Introduction

Sport has been a part of my life since I can remember. Twenty years ago, I embarked on a long, and at times arduous, journey through the world of elite amateur sport. As a child I became enchanted with the sport of synchronized swimming. I loved the combination of power and beauty, strength and grace. I had a lot of passion for “synchro”, but I struggled early on, coming last at some of my first competitions. Nevertheless, my Olympic dream was born. I worked hard for ten long years before finally qualifying for my first National Team. Along the way were many failures, many medals, and the inevitable injuries.

Throughout my time in the club system I had many caring, supportive coaches. I always felt comfortable communicating how I was feeling to them. They took any injuries or potential injuries seriously. At the same time, there was an unsaid expectation that at critical times, such as a championship meet, we as athletes were expected to push through just about anything and perform. The team was valued above all else, and no one wanted to break the cardinal rule: never let your teammates down. That feeling only intensified at the National Team level. If you weren’t 100% ready to go on the day of an event, not only would you be letting your teammates down, you would be letting your country down as well.

In the fall of 2007 I qualified for the pool of athletes from which the 2008 Olympic Team would be selected. I was living my Olympic dream (or so I thought). The following May, three months before the Games, I was told that I was the final athlete to be cut from the team. On August 8th, I watched the Opening Ceremonies on television with tears
running down my face. When I was invited back to the National Team that fall, I accepted. I had something to prove. The coaches were going to see how wrong they were to have left me off the team. I was going to let absolutely nothing stop me from keeping my spot on the team this time.

My first concussion happened about two months later when an acrobatic move malfunctioned and a teammate landed on my head. I had no previous experience with concussions and no understanding of how serious they were. It had been made clear to us that missing any time in the pool would cost us our spot on the team. That night I had classic concussion symptoms (nausea, head ache, dizziness) but I was determined to hold on to my spot on the team no matter what. I went right back into training the next morning without a word to the coaches. The exact same accident happened as the day before. This time I had to be pulled out of the water by my teammates; there was no concealing this injury from my coach. Needless to say, I was not able to swim at the upcoming international meet. This series of events was the beginning of the end of my elite athletic career. My symptoms persisted and four months later I was forced to retire after sustaining a third concussion.

After the anger passed, I was able to reflect on what had happened. I had a lot of questions: what if I had said something after the first hit to the head? Would I still be able to swim? Would I have had a shot at the next Worlds? The next Olympics? Why did I not say anything when something was obviously wrong? How had the coach influenced me? How had my team influenced me? I wanted to understand why I had made the decision that I did.
I am now on the other side of the pool deck. I have been coaching national level synchronized swimmers for two years. As a coach, I feel a great deal of responsibility to my athletes. I hold myself accountable for their safety and well-being while they are in my charge. I asked myself what I could do to ensure that what happened to me never happens to my athletes. I wanted to know what I could do to help my athletes feel supported and free to communicate with me. When I began to research the topic of injury disclosure in sport, I was surprised to find virtually no literature on the decision-making process that an athlete goes through before reporting an injury. Reflecting on the importance of understanding this process, I knew this topic needed to be addressed. The idea for this project was born.

Athletic injury can be a serious issue for a competitive athlete. Various studies have shown that injury can impact negatively on an athlete in several ways, including the athlete’s emotional state, sense of identity, and athletic career (Podlog, Dimmock, & Miller, 2011). Perhaps due to a desire to avoid the negative outcomes of being injured, there is evidence indicating that many competitive athletes choose to “play through the pain”, either by avoiding reporting the injury or returning to training or competition too soon. Previously reported reasons include fear of losing one’s spot on a team or one’s career (Roderick, Waddington & Parker, 2000), feelings of pressure from team mates and/or coaches to return (Bianco, 2001; Podlog & Dionigi, 2010), and in many sports the culture of “toughing it out”, especially among males (Messner, 1990; see Young, 1993, for a discussion). While there is a wealth of literature on athletes’ psychological processes during rehabilitation and returning to play, little is known about the factors influencing an athlete’s decision to report an athletic injury. Studies have found that
athletes do, at times, conceal their injuries from coaches, team mates, and medical personnel (e.g., McCrea, Hammeke, Olsen, Leo, & Guskiewicz, 2004). However, there is a large gap in our understanding of how athletes arrive at the decision to report or not report an injury. The present study aims to address part of this gap.

Whereas there are many influences in an elite athlete’s life, few figures have as great an impact on an athlete’s psychosocial state as his or her coach (Jowett, 2005). The coach-athlete relationship is complex and multi-faceted. It is a dynamic, iterative relationship; changing and adjusting according to various external and internal processes. Typically, much is invested by both parties and the stakes are often high, particularly in high performance sport. Several studies have highlighted the influence of the coach on an athlete’s physical and psychosocial development (Jowett & Cockerill, 2002). The coach can greatly affect the athlete’s cognitions and emotions, in both a negative direction such as feelings of sport anxiety (Baker, Cote & Hawes, 2000), and in a positive way through feelings of autonomy support (Stebbings, Taylor, & Spray, 2011). Coaches can influence athlete behaviour as well. For example, unsupportive coach behaviours contribute to the use of maladaptive coping strategies (Nicolas, Gaudreau & Franche, 2011) and negative self-talk (Zourbanos et al., 2010) by athletes. According to Lyle (2002), the nature of the inter-personal exchange between the athlete and the coach has a significant influence on several outcomes, including athletic development and performance, coaching practices, and athlete satisfaction and welfare.

Presently there is limited understanding of the roles and influences of coach behaviour on athlete cognitions, perceptions, and motivation. There remains much to be explored surrounding the scope and effects of the coach-athlete relationship. The
The question that this study endeavours to answer is: Does an athlete’s relationship with his or her coach influence reporting of injury, and if so, how?
Chapter 2: Review of Literature

There is currently a paucity of literature on athletic injury disclosure. Much of the athletic injury literature is focused on the etiology, treatment, and rehabilitation of injury. This research is based primarily on the self-report of injuries by athletes (e.g., Brooks, Fuller, Kemp, & Reddin, 2006; Emery & Tyreman, 2009); however, there is very little literature on athletes’ reporting versus concealment behaviours pertaining to sports-related injury. In a PubMed literature search, three studies directly concerning injury reporting and concealment were found. Injury concealment was found in high school football players (McCrea, Hammeke, Olsen, Leo, & Guskiewicz, 2004), martial arts participants (Birrer & Birrer, 1983) and basketball players (Long, Ambegaonkar, & Fahringer, 2011). McCrea et al. (2004) reported that concussion concealment among football players is most often due to a desire to remain in the game, a lack of awareness that a concussion has been sustained, or an underestimation of an injury’s severity. A study comparing injury reporting and concealment patterns of basketball players and cirque performers found that one of the most common reasons that basketball players concealed injuries was reluctance to tell the coach (Long, Ambegaonkar, & Fahringer, 2011). This indicates the potential for the coach, and more specifically the athlete’s perceptions of the coach, to play a major role in injury concealment. More research is needed to tease out the precise influence of the coach-athlete relationship in athletic injury reporting.

The coach-athlete relationship is only partially explained by traditional interpersonal relationship models. While this relationship is a form of social interaction, the
intricacies of perception and motivation involved transcend traditional relationship models, which tend to be essentially transactional in focus (e.g., Relational Models Theory, Fiske, 1992). The coach-athlete relationship is unique in that it appears to combine elements of several different relationship types. Aspects of mentoring relationships, student-teacher relationships, friendship relationships, family relationships, and professional relationships can be glimpsed in the coach-athlete relationship. For this reason, models specific to the coach-athlete relationship need to be developed to adequately explain and understand it.

Much of the coach-athlete relationship literature is centred on measuring coaching behaviours. While this is certainly relevant, one could argue that centrally important factors are the athlete’s perception, interpretation, and ultimate reaction to coach behaviour. These processes will govern the athlete’s behaviour to a large extent, which may, in turn, affect the coach’s behaviour. Several attempts to model the coach-athlete relationship have been made.

Chelladurai and colleagues (1993) have adapted models of leadership behaviour to the sport context with their Multidimensional Model of Leadership. The Multidimensional Model predicts that group member performance and satisfaction is a function of how well three states of leader behaviour, required, preferred, and actual, match one another. Required leader behaviour is that which is dictated by the characteristics of the context, preferred leader behaviour is that which is preferred by team members, and actual behaviour is that which is executed by the leader. While this model is comprehensive in the sense of including leader characteristics, group
characteristics and context, it is limited in the sense that it is solely behaviour based, excluding any cognitive variables.

Smith, Smoll and colleagues proposed the Mediational Model of Leadership, based on work in youth sport (e.g., Curtis, Smith, & Smoll, 1979; Smith & Smoll, 1989). The three main components are coach behaviours, player perception and recall, and players’ evaluative reactions, thereby incorporating both behavioural and cognitive constructs. An important feature of this model is the inclusion of cognitive factors of both athletes and coaches, such as self-monitoring and behavioural intentions, as influences on the nature of the coach-athlete relationship. More specifically, the identification of player evaluative reactions as the key outcome measure underlines the importance of an athlete’s interpretation of his or her coach’s behaviours. Certain coach behaviours may mean very different things to different athletes and produce different outcomes.

The Multidimensional and Mediational models of the coach-athlete relationship are lacking an important element—motivation. Arkes and Garske (1982) describe motivation as “processes that influence the arousal, strength, and direction of behaviour” (p. 3). Furthermore, motivation is an essential antecedent to performing behaviour (Mowrer, 1952). More recently, Mageau and Vallerand (2003) developed a model of the coach-athlete relationship that incorporates motivation, based on Ryan and Deci’s (2000) self-determination theory (SDT). Appropriately named the Motivational Model, this model suggests that an athlete’s levels of intrinsic and self-determined extrinsic (i.e., “healthy”) motivation is determined by their perceptions of how well Ryan and Deci’s (2000) three needs—autonomy, competence, and relatedness—are met. The main
determinant of these perceptions is coach autonomy-supportive behaviour. Autonomy-supportive behaviour in a coach is that which increases an athlete’s sense of perceived autonomy. This is the degree to which the athlete feels as if he or she is the author of his or her own behaviour. Examples of coach autonomy-supportive behavior include: providing a rationale for tasks and limits, providing choice within rules, and providing the opportunity for initiative-taking and independent work (Mageau & Vallerand, 2003).

According to the Motivational Model, the degree to which a coach’s behaviour is autonomy-supportive is determined by the coaching context, the coach’s personal orientation, and the coach’s perceptions of athlete’s behaviour and motivation. The coaching context is the setting in which coaching is occurring, and all of the pressures and influences that come with this setting. For example, the coach of a national team will likely be under a lot more pressure to deliver favourable competition results than the coach of a regional club or novice team. A coach’s personal orientation refers to their attitude towards autonomy support and their personal values. A coach who values authority and incentives will likely be much less autonomy supportive than a coach who values an athlete’s need for autonomy and independence. A coach’s perception of an individual athlete’s behaviour and motivation can have a significant effect on how the coach interacts with that athlete. No two athletes have the exact same relationship with the same coach.

Given the importance of motivation as a determinant of behaviour, the incorporation of the construct of motivation in the Motivational Model represents a significant progression in the study of the coach-athlete relationship. The Motivational Model also has parallels to Carl Rogers’ humanistic theory of motivation (Rogers, 1961).
Rogerian theory emphasizes three key factors in the motivation to perform behaviour: conscious experience, contemporaneous factors, and interaction with the interpersonal environment (Arkes & Garske, 1982). These aspects are reflected in Mageau and Vallerand’s Motivational Model in the constructs of perceptions of the other’s behaviour, used by both the athlete and the coach to drive their own behaviour (indicating a conscious evaluation of the current interpersonal environment). In addition, inclusion of coach perceptions of the athlete’s behaviour is very important. Previous models have implied a more unidirectional relationship; however, the relationships between coaches and athletes are dyadic. Thus, both parties influence one another, in line with Kelley and Thibaut’s (1978) Interdependence Theory. According to Interdependence Theory, the relationship between two people is influenced by how “two sets of personal dispositions engage with each other.” (p. 3). Thus it is essential to recognize the contribution made by each member of the pair, in this case both the coach and the athlete.

Whereas the above models have been developed from pre-existing theoretical frameworks, Jowett and colleagues have conducted extensive empirical work on the coach-athlete relationship and characterized it in terms of four constructs they labelled “the 3 Cs + 1” (Jowett, 2009). These constructs are Closeness, Commitment, Complementarity, and Co-orientation. Closeness refers to feelings of closeness at an emotional level, commitment refers to the sharing of perspective, and complementarity refers to co-operation in interactions, especially during training (Jowett & Ntoumanias, 2004). According to Jowett and Ntoumanias (2004) these constructs can be thought of as representing emotions, thoughts, and behaviours, respectively. Co-orientation was added to the model at a later date in order to account for inter-subjective experiences and meta-
perceptions of each member of the relationship (Jowett, 2007). The identification and characterization of the “3 Cs + 1” began with qualitative work aimed at understanding the nature of the coach-athlete relationship, particularly from a relationship perspective (Jowett & Ntoumanias, 2004). The grounded nature of “the 3 Cs” is a strength of this theory; however, there are some criticisms of how the data were obtained. The data on which the 3 Cs were based were collected from four coach-athlete dyads, all of whom were married couples. The close personal relationship between the members of each of the dyads may have clouded the data. It is possible that the nature of these relationships is very different from that of coaches and athletes who are not involved in a romantic relationship. Furthermore, the athletes were interviewed years after they had competed. Accuracy of the recall of events fades over time (Odinot & Wolters, 2006).

That being said, the “3 Cs + 1” and the instrument designed to measure these constructs, the Coach-Athlete Relationship Questionnaire (CART-Q), have been validated in various other populations since their initial inception. The CART-Q has been translated into several languages and has shown sound factorial validity and internal reliability across languages and athlete populations (Balduck & Jowett, 2010; Jowett, 2009; Yang & Jowett, 2012). The CART-Q has been used to examine the association between coach-athlete relationships and various other variables in the sport context, such as team cohesion (Jowett & Chaundy, 2004), sport-related satisfaction (Jowett & Nezlek, 2011), achievement goals and intrinsic motivation (Adie & Jowett, 2010), and passion for coaching (Lafreniere, Jowett, Vallerand, & Carbonneau, 2011), among others. The CART-Q is arguably one of the most established tools to measure the quality of the
coach-athlete relationship, however to date it has not been used to examine athletes’
injury reporting decisions.

Some research has focused on the power imbalance inherent in the coach-athlete
relationship. Several studies have applied French and Raven’s (1959) five bases of social
power to the sport context. These are reward power, coercive power, legitimate power,
referent power, and expert power. Reward power refers to the ability to bestow rewards
upon another, such as when a coach has the ability to give out rewards, such as extra
attention or playing time, in exchange for the performance of certain behaviour. Coercive
power is the ability to manipulate behaviour through the use of punishment such as
denying an athlete certain privileges. Legitimate power is that which is inherent to the
position in an organization. A coach has power over an athlete according to their position
as ‘coach’ in the hierarchy of the team or organization. Referent power refers to the
ability to influence another through feelings of attachment and identification. For
example, a well-liked coach can have power over athletes because the athletes want to
please or align themselves with him/her. Expert power is derived from a perceived level
of knowledge or skill. A coach may have power over an athlete if that athlete perceives
the coach to be highly skilled or knowledgeable, either compared to him/herself or
against an absolute standard.

Turman (2006) found that an athlete’s player status significantly affects
perceptions of coach power use. Starters were more likely to perceive their coach as
using reward power than non-starters. In addition, athletes’ perceptions of their coaches’
use of reward power and expert power predicted athlete satisfaction levels. Higher usage
of reward and expert power by the coaches correlated with higher levels of satisfaction in
the athletes (Turman, 2006). Ehsani, Koozechian and Moradi (2012) also found expert power to have the highest correlation with athlete satisfaction among female handball players.

A study of power and conflict in the coach-athlete relationship conducted on young athletes found that legitimate and expert power were the coach power sources that were most likely to deter an athlete from resisting or defying the coach when the athlete believed the coach’s behaviour to be morally wrong (Duquin & Schroeder-Braun, 1996). This indicates that a significant amount of the power that a coach has may be built into the ‘coach’ role. The coach has power because he/she is the authority figure and is thought to possess valuable skills and knowledge.

The inequality of power in the coach-athlete relationship can be based on individual characteristics such as age and/or gender (e.g. male coaches having power over female athletes), or on social characteristics such as experience and knowledge, authority, and resource access (Stirling & Kerr, 2009). Due to the nature of the coach’s role and vital contribution to an athlete’s success, the athlete can, in a very real sense, become dependent on his or her coach. The coach’s power and influence over the athlete can often extend beyond the training field to other domains of the athlete’s life, including personal care practices (e.g., eating and sleeping habits) and interpersonal relationships (Tomlinson & Yorganci, 1997).

In a study examining the perceptions of abused athletes of the coach-athlete relationship, Stirling and Kerr (2009) found that abused athletes most often refrain from reporting the abuse out of fear of their coach and fear of the negative impact on their
athletic careers. Fear appears to be a central determining factor in athletes’ decisions to refrain from reporting negative events. Duquin and Schroeder-Braun (1996) found similar results in young athletes, who identified feelings of powerlessness and fear as two of the most common reasons why the athletes did not resist a coach’s behaviour that they judged to be wrong. It is clear from previous research that the power differential in the coach-athlete relationship can have a profound effect on athletes, and understanding the dynamic is of vital importance to coach-athlete relationship research.

Previous research into the attributes of “great” or “expert” coaches has identified the importance of an athlete-centered approach to coaching (Becker, 2009; Bloom, 1997). An athlete- or player-centered approach to coaching is defined as one that is autonomy supportive (De Souza & Oslin, 2008). According to interviews conducted with coaches who had been categorized as “expert coaches”, an athlete-centered approach involves athlete empowerment and concern for athletes (Bloom, 1997). Athlete empowerment is fostered by encouraging athlete input and integrating athletes’ suggestions when appropriate, and by showing athletes a level of respect. Coaches demonstrate concern for athletes by taking an interest in their overall well-being, not just as athletes but as people. Athletes who described their coaches as “great” noted that these coaches purposefully built an athlete-centered environment within the team, as well as in their interactions with each individual athlete (Becker, 2009). The philosophy of athlete-centered coaching ties in to the central factor of the motivational model of the coach-athlete relationship, namely coaches’ autonomy-supportive behaviour. Therefore athlete-centered coaching practices likely increase an athlete’s intrinsic and self-determined extrinsic motivation, and make the sport experience as a whole healthier and more fulfilling for athletes.
It is clear that the quality of the coach-athlete relationship is of central importance to an athlete’s functioning. There is evidence that the coach’s influence is pervasive, both in sport performance and in the athlete’s general well-being. The body of research conducted to date on the coach-athlete relationship is comprehensive in that it attempts to include a diversity of variables (e.g., behaviour, cognition, motivation, perception, context, attitudes, etc.) in modelling this relationship. However, almost all of the previous characterizations suffer from the same critical limitation: they are based on theories of social psychology and social interaction with little, if any, empirical basis or grounding in actual data of coach-athlete relationships. The Motivational Model is rooted in self-determination theory and reviews of coach-athlete interaction literature. The Multidimensional Model of Leadership was developed from questionnaires that were based on pre-existing leadership scales from a managerial and corporate context. The Mediational Model of Leadership was developed from observations of coach-athlete interactions and questionnaire evaluations of these behaviours by young athletes. The questionnaires were given retroactively at a season’s end, thus some of the behaviours that the children were asked about would have occurred several months prior. Furthermore, the system used to code the coaching behaviours, the Coaching Behavior Assessment System (CBAS), was developed from observing coaches in only one sport and uses categories derived from social learning theory.

The almost purely theoretical basis of most of the coach-athlete relationship models represents a significant gap in the literature. Without any strong qualitative examination of the phenomena, it is possible that a truly accurate description of the coach-athlete relationship remains to be developed. According to Charmaz (2004), to
fully understand a world, one must learn about this world from the inside, using the perspectives and actions of the people living in it to unearth what is important. While the “3 Cs” represents an attempt at a coach-athlete relationship model grounded in the athlete’s perspective, it is not without significant shortcomings, as noted above. A significant strength of using qualitative methods to study a phenomenon is that whatever knowledge is gained by performing the study, it is not limited by any pre-existing biases that may occur when the research is rooted in existing theory. When the approach to the research question is tightly constrained, the answer can be even more so.

Without any significant literature bearing directly on the topic of coach-athlete relationship influences on athletic injury reporting, and given the common weaknesses in the existing models of the coach-athlete relationship, the present study was conducted using qualitative research methods. The results of this study should begin to address the gap in our understanding of the processes of and influences on an athlete’s decision to report or conceal an injury.
Chapter 3: Method

Purpose

The purpose of this study was to explore athletes’ perceptions of the influence of coach-athlete relationships on injury reporting using the qualitative research technique of interviewing. More specifically, this research endeavoured to answer the following questions: (1) Does an athlete’s perception of the nature of the relationship between athlete and coach affect an athlete’s decision to report versus conceal an injury?, (2) If so, what are the critical aspects of the relationship that influence the decision? And (3) How do these critical aspects act to influence injury reporting decisions? This study is the first known inquiry into the link between the coach-athlete relationship and injury reporting in athletes. The findings of this study illuminate the inter-personal factors in athletic injury reporting, and provide the basis for further qualitative and quantitative investigation of this as yet unexplored domain.

Participants

Following a purposeful sampling method, participants were recruited from the varsity swimming team at a Canadian university. Participation was completely voluntary. A total of six athletes (three males and three females) were interviewed. The sample size of six was chosen because saturation is likely to be reached at this point. Guest, Bunce, and Johnson (2006) found that 94% of data codes that emerged with high frequency in a sample size of 60 were already present after only six interviews. The use of only
swimmers was deliberate in order to avoid any confounding variables such as differences in the cultures of different sports that bear on injury reporting decisions. Swimming combines aspects of both team and individual sports (athletes train as a team but compete as individuals), and thus provides the opportunity for the exploration of both of these aspects. Furthermore, swimming has already been used as a context for the study of the coach-athlete relationship (e.g., Philippe & Seiler, 2006).

To be included in the study, participants must have been swimming for at least 10 years at the club level or higher, have had at least three different coaches during their careers (including their current varsity coach), and have experienced at least one instance where they concealed an injury sustained during the practice of their sport. Obviously, the injury had to have been of a concealable nature. The criterion of swimming for at least 10 years at the club level was to ensure participants have had adequate exposure to elite level sport. Elite athletes are the focus of this study as they may be more likely than recreational athletes to conceal an injury, given that the stakes are higher (for both athletes and coaches) than at lower levels of participation. The criterion of having had at least three coaches was to ensure they have had adequately diverse experiences with coaches to enable them to make comparisons.

Recruitment.

Participants were recruited through flyers distributed to the athletes on the swim team (Appendix A). The flyers had a brief description of the study and the researcher’s contact information. For convenience, the flyers were distributed to the athletes by the team coach via email; however volunteers contacted the researcher directly to participate.
Participants were offered a $10 Starbucks gift card in exchange for their participation in the study.

**The Athletes.**

Each of the participants is described below. A summary of these descriptions can be found in Table 1.

**Swimmer 1 (S1).** S1 is female and had been swimming for 15 years at the time of the interviews. She has had eight coaches throughout her career. S1 reported having previously experienced five injuries at the time of the study: chronic bilateral foot injuries, an acute injury to each shoulder, a chronic knee injury, and an acute hip injury. Aside from S3, five injuries were the most reported by a participant.

**Swimmer 2 (S2).** S2, male, reported experiencing only one chronic injury (bilateral shoulder injury) in his career. At the time of the interview, S2 had been swimming for 12 years and been coached by seven different coaches.

**Swimmer 3 (S3).** S3 is also male and had been swimming for 13 years at the time of the interview. He has experienced an acute right shoulder injury, and numerous muscular strains throughout his body. He was unable to specify a number or all locations of the strains. S3 reported having six coaches during his career.

**Swimmer 4 (S4).** S4 had been swimming for 11 years and had been coached by four different coaches at the time of the interview. She is female and reported having experienced two injuries during her career, a chronic shoulder injury and an acute back injury.
Swimmer 5 (S5). S5 is female and reported experiencing the same two injuries as S4 during her career (acute back and chronic shoulder injuries). S5 has had five coaches and had been swimming for 10 years at the time of the interview.

Swimmer 6 (S6). S6 also reported having experienced only one injury (chronic bilateral shoulder injury). S6 is male and had been swimming for 10 years at the time of the interview. He has been coached by four different coaches in his career.

Materials and Procedures

Prior to commencing the study, approval by the Health Sciences REB at the University of Toronto was obtained. Once recruited, the principal researcher set up interviews with each of the participants. All participants gave written informed consent before participating in the study (see Appendix C for a copy of the consent form). Interviews were conducted in the Concussion Lab at the University of Toronto in order to minimize outside noise and distractions. An interview guide containing 15 open-ended questions was used (Appendix B). The interview questions were designed to guide the athletes through reflection on their previous experiences in coach-athlete relationships and in concealing and reporting sports injuries. Interviews were audio recorded using a digital recorder (Panasonic RR-XS400S Digital IC Recorder). Each participant was interviewed once. The interview process took approximately one hour from start to finish. Questions were asked according to the interview guide described above. Participants were free to refuse to answer a question and to terminate the interview at any time. None of the participants refused to answer any questions nor requested that the
interview be terminated. With participants’ permission, all interviews were recorded for future reference. Following each interview, the recording was transcribed verbatim, and transcripts were analyzed in a qualitative approach. Upon completion of the research, a summary report will be made available to participants who wish to receive one.

**Ethical Considerations**

The main ethical consideration for this research is the confidentiality of the athletes’ responses to interview questions. Athlete identities are protected by using a numerical code (i.e., S1, S2) to report their responses. Any documentation indicating the correspondence between the codes and the athletes’ identities was destroyed upon completion of the study. Electronic copies of researcher field notes, recorded audio files and written transcripts from the interviews are kept on a secure, password-protected drive and any hard copies are kept in a locked drawer in the University of Toronto Concussion Lab. Only the principal investigator has access to the data. Any data containing potentially identifying information will be destroyed after a period of one year. Anonymous data will be kept indefinitely for the purpose of potential additional research.

An additional ethical consideration for this study was the possibility of participants experiencing some emotional distress while recalling past episodes of athletic injury. In order to minimize the impact on participants’ well-being, the researcher regularly reminded them that they are free to refuse to answer a question and/or terminate the interview at any time, without repercussion. Additionally, a list of on- and off-
campus counselling resources was made available to the participants. None of the participants indicated that they wished to contact a counsellor.

**Data Analysis**

Written transcripts of the recorded interviews formed the data for analysis. Qualitative inquiry was deemed the best method to explore this topic, as described earlier. Rich, detailed data of the type yielded by qualitative methods was needed in order to answer the research question. Due to the dearth of existing literature and theories on the topic of injury reporting, a Grounded Theory approach to data analysis was most appropriate. The main principle of Grounded Theory is that data analysis should be an iterative process, with theoretical ideas developing and emerging from the data itself (Glaser & Strauss, 1967). This is done to avoid biasing the interpretation of the data through the incorporation of existing theories into the collection and initial analysis.

The interview transcripts were coded into meaning units. A meaning unit is a distinct word, phrase, sentence, or set of sentences that conveys a single particular concept (Mostyn, 1985, as cited in Burnard, 1994). These meaning units were grouped into themes, by identifying emerging motifs and patterns. Lists of the codes corresponding to each theme were created in order to determine the frequency with which the themes were occurring in the data, as well as the distribution of the themes among the participants. Only themes that occurred in at least five of the six participants’ interviews were used. All coding was done by hand by the principal researcher, who also kept a journal of developing ideas and patterns in the data, during the coding process. The
themes were further organized into higher-order factors. As the analysis of the data was
an iterative process, several different organizations of the themes were developed and
rejected before the current organization was refined. Factors were organized into a
framework to compose a new model, the PI-AIR (Psychosocial Influences on Athletic
Injury Reporting) Model.

After the Grounded Theory process was completed, the data were also examined
through the lenses of established theories in order to determine whether the results could
be explained using a pre-existing theoretical framework. Elements of the Motivational
Model were very salient in the data. On the suggestion of a member of the advisory
committee, Social Exchange Theory was applied to portions of the data. No single theory
was deemed appropriate to fully encompass all of the findings. Aspects of the results that
do fit with existing theories are reviewed in the Discussion.
Chapter 4: Results

This section describes the themes that emerged from qualitative analysis of the data. Each theme is discussed and quotes from the participants are included to illustrate the grounded meaning of each theme. The purpose of this study was to examine effects of the coach-athlete relationship on the disclosure decision-making process. However, as the data were analyzed other types of factors emerged as having a strong influence over the participants during this process. The results grew to encompass the other types of factors that arose from the interviews, individual factors and team factors.

From the data transcripts, meaning units were assembled into 10 themes: identity, pain, frustration, coping, power, trust, openness/caring, investment, isolation, and atmosphere. Each of these themes represents a factor that influences an athlete’s decision to disclose or conceal an injury from his or her coach. These factors were then categorized into three levels, depending on their locus of influence: individual, coach-athlete, and team factors. Other themes related to swimming, the coach-athlete relationship, and the injury experience also emerged from the data, however they were deemed beyond the scope of this study as the purpose of this study was to elucidate factors determining athletic injury disclosure. Each of the factors are defined and described.

**Individual Factors**

Several factors were found to influence the decision to report or conceal an injury that act at the level of the individual athlete (Figure 1). Identity, pain, frustration, and
coping all affect the athlete’s decisions to communicate post-injury. These factors are predominantly active within an individual’s psyche.

**Identity.**

Like all high performance athletes, elite level swimmers spend a huge amount of their time training in their sport. As such, being a swimmer is a central part of their personal identities, and can be of extreme personal importance:

“Swimming has definitely been a huge source of confidence for me throughout my life…it was the one thing that always made me feel good about myself.” (S3)

Sustaining an injury can cause swimmers to feel their identity of ‘swimmer’ is threatened. This can be very traumatic and can cause the swimmer to become totally pre-occupied with the injury, sometimes to the point of being obsessive:

“…usually it is very hard to get them to think about anything else, because swimming is such a central part of their lives, and you’ve taken that away from them for whatever time.” (S6)

This can sometimes extend to the point of affecting other areas of an athlete’s health, as S2 describes: “you can’t sleep, you think about your injury all the time.”

Participants described feelings of denial of being in pain or injured. As S6 explains: “I don’t want to believe that I have this problem and I need to stop.” Denial of pain and of being injured could be a way for athletes to protect themselves from losing an
important part of their identities. Being unable to practice and perform can bring a profound sense of loss and grief to some athletes:

“You go to the physio and they tell you that you can’t swim for this amount of time, you get this sinking feeling in your stomach. Because you can’t do the sport you love…So you just end up feeling really bad.” (S6)

Avoidance of dealing with an injury can be a protective mechanism, safeguarding athletes from the emotional pain that accompanies the feeling of loss of an identity.

For many elite athletes, for whom their sport is a major part of who they are, their everyday behaviour is geared towards achievement of long term goals of successful results. These athletes will do virtually anything to accomplish their goals, including continuing to train when in pain and injured:

“When I was swimming through pain…I would just do it because I wanted to achieve something, and I would do anything to get there.” (S2)

For some athletes, training and competing through physical pain is simply another sacrifice they must make to reach the top.

Pain.

Pain is one of the most salient factors that influenced injury disclosure in the participants. All of the participants cited pain as one of the foremost determinants of whether they would disclose an injury to the coach or continue to swim. Athletes will disclose an injury when pain levels become unbearable, as S6 describes: “…sometimes I
would have held out and then I couldn’t take the pain anymore so I told my coach.” The majority of the participants described a ‘threshold’ at which they would tell the coach they were in pain. This threshold was governed by two main considerations. Athletes will disclose pain when it reaches a level at which they become concerned about inflicting lasting damage to their bodies:

“I think if it’s too much to the point where I’m putting my health on the line, or my shoulders on the line, then I would [stop].” (S2)

A related concern is long-term consequences for their careers. The second determinant of the pain threshold necessary for disclosure is adaptability. If athletes can reduce their pain by adapting their movements, they may continue to train while injured. However if it becomes necessary for an athlete to alter technique while practicing his or her sport due to pain, the athlete will be more likely to tell the coach:

“There’s definitely a threshold, I mean if I have to switch my stroke to make it comfortable, or if it’s that painful that I can’t make myself move my arm through the water, then I’ll definitely say something.” (S6)

Sometimes athletes will disclose pain to their coaches, but hide the severity of the pain they are experiencing, in order to be allowed to remain in the training session. As S2 describes: “I wouldn’t talk to my coaches right away, I would tell them ‘ok I’m a bit hurt’ but I wouldn’t tell them it hurts a lot.”

The participants also experienced difficulty distinguishing the source of pain at times. This likely arises because the majority of the injuries experienced by swimmers
are soft-tissue injuries. Athletes may at times second-guess whether pain is due to an injury or due to muscle soreness from heavy training:

“Sometimes it would hurt but I wasn’t sure if it was like a good hurt, like if I had done weights and I was improving my muscle strength or something…So then I would sit out of sets and be worried it was unnecessary, like I should have sucked it up and kept going.” (S5)

This doubt can drive athletes to continue through harmful pain or to question the decision to stop training with pain.

Swimmers may also continue through pain simply because it is a norm of the sport. Many of the participants noted that it was common for swimmers to continue training while injured. As S4 explains: “like a quarter of our team were injured this year, and yet they still swam.” This standard of continuing through pain makes it more likely that athletes will persist in training while injured without disclosing the injury to anyone. According to S6: “I mean, you’re already in pain from the set, you just kind of take it and keep going.”

**Frustration.**

All of the participants described the injury experience of a swimmer as ‘frustrating’. For an elite athlete, being injured can be extremely frustrating and disheartening. This frustration can come from a variety of sources. Most of the participants cited missing training as the primary source of frustration due to injury. Athletes can feel an overwhelming sense of urgency to continue training and avoid
negative feelings associated with missed training. Some swimmers find that they are losing the fitness that is essential for them to be competitive in the sport:

“You have to be very fit to do well in the sport. I think knowing that…gives you probably a greater sense of urgency than a lot of other sports. You don’t want to have that time out, you don’t want to miss time in the pool.” (S3)

These feelings can become magnified in the competition phase of the season:

“It’s really frustrating—especially when I’m starting to get closer to the big meets—so it’s frustrating because I want to start training and go fast and be prepared for the meet. But I don’t feel prepared because I can’t do all the main sets.” (S5)

Participants also described a sense of frustration around losing their ‘feel’ for the water. Many swimmers experience a subjective feeling of comfort and propulsion in the water that is labelled ‘feel’ in swimming culture. Time spent out of the water undermines this feeling and for some can induce feelings of frustration:

“I just don’t want to have a pause in my training. For me even when I take a couple of days off I lose the feel. Something feels off, and I feel weak, and it’s hard to get back from that.” (S4)

The desire to avoid these negative feelings can be so profound it could compel athletes to conceal pain or injury in order to continue training and being in the water. Some athletes also experience frustration from undergoing necessary treatments for injury, which could
deter these athletes from disclosing an injury in order to avoid having to go through the annoying experience:

“\text{You have to provide or find more time to go to the clinic or see the doctor. That aspect is I think very irritating, it is not fun to deal with.}” (S2)

For an athlete, the experience of being injured can be mentally and emotionally exhausting:

“\text{It [being injured] is just tiring. It’s emotionally tiring because the doctors tell you to take it easy but you don’t want to, because you want to keep training you don’t want to lose the feeling you have in the water, so it’s tough.}” (S4)

Unfortunately, for many of the participants disclosing an injury does not bring any relief from the frustration they experience. S1 describes how disclosing feels:

“\text{I don’t want to say relieved, cause it’s not really. Cause all you want to do is get back in the pool.}” (S1)

The lack of consolation derived from admitting an injury, combined with the profound feelings of frustration many athletes associate with injury and recovery, could potentially lead an athlete to conceal an injury in order to avoid having to experience these negative reactions. Avoidance may function as an escape from unpleasant emotions.

\textbf{Coping.}

Concealing an injury in order to avoid dealing with it and avoid experiencing accompanying feelings of frustration, loss of identity, or disappointing the coach could be
considered to be a form of coping mechanism. This method of coping could be considered maladaptive as it compels an athlete to continue an activity that is causing pain and/or further injury. If an athlete is avoiding dealing with an injury, this state has the potential to compel the athlete to stay silent and refrain from disclosing the injury to his or her coach. Conversely, if the athlete employs a more adaptive coping mechanism when he or she becomes aware of an injury, the likelihood of the injury being reported may be higher, especially if the athlete believes the coach will facilitate coping with the injury.

There are more productive and adaptive ways that an athlete can cope with injury. The participants of this study all mentioned that extra training in different activities or modifications of regular training that allow them to continue practicing assists them in coping with their injuries. As S4 describes:

“I biked a lot, and ran a lot and spent more time in the weight room, so that was better for me actually because I’m a sprinter. Even [my coach] was like ‘you should spend more time in the weight room now that you can’t swim as much’. So that actually helped me a bit.”

If an athlete has these instrumental coping outlets they may be more likely to disclose an injury. Feeling that the coach will support or even suggest training modifications in order to help the athlete stay in the pool may also encourage an athlete to communicate to the coach that they are injured:
“I would tell my coaches…and the coaches would understand, like let’s say we were doing pulling for example, using paddles. They would tell me to stop using paddles or to use smaller paddles, and pull less.” (S2)

Other coping mechanisms that participants have used or observed include keeping in mind long-term goals:

“You know, you want to keep going, cause you want to get fitter and you want to get faster, but you have to realize that the goal isn’t tomorrow or the next day, it’s a ways down, and if I compromise myself this much today, then tomorrow and the next day I’m going to have to sit out of the pool.” (S3)

and pushing themselves to improve in other areas that they are able to train:

“…you might also see them initially [after an injury] extremely motivated to do other things, like maybe if their arm was injured they would be doing a lot more leg exercises and kicking. So you’d see them really trying to push themselves.” (S6)

Using constructive coping mechanisms is very important. As S4 explains, “it’s more emotionally and mentally tough for a swimmer to be injured than it is physically.”

Potentially, a swimmer may be more likely to tell the coach that they are injured if they feel confident that they will be able to cope with the injury in a manner that reduces negative feelings associated with being injured.

These individual factors can significantly influence an athlete’s decisions and behaviour, which in turn can affect the coach-athlete relationship. Individual factors
contribute to forming part of the groundwork on which the coach-athlete relationship is built, and therefore need to be included in the analysis of the influence of coach-athlete relationship on injury reporting.

**Coach-Athlete Factors**

Four main factors were found to influence injury reporting at the level of the coach-athlete relationship: power, trust, openness/caring, and investment (Figure 2). Each of these factors relates to interactions between the athlete and the coach or coaches, without any involvement of other team members. Interactions have many forms, from direct two-way verbal communication to interpretations of the other party’s actions from a distance.

**Power.**

The inequality of social power in the coach-athlete relationship gives power the potential to have a significant influence on the decision to report or conceal an injury. All participants discussed the power dynamics of the relationship between themselves and coaches in direct reference to the decision to report an injury. Interestingly, it appears that in many instances swimmers want the coach to exert power over them. For some it may be a source of motivation:

“If a coach can tell that something is an issue…and they keep coming back to me and be like ‘ok, you’re going to talk to me at some point’, then I like that. But physically too, I like it when they give me a kick in the pants when I’m not doing something.” (S1)
The participants want the coach to be an authority figure. When asked to describe her ideal coach, S4 said “strict, as in like in command. Strict in the sense that…they like to keep up with the rules”. The perceived need for the coach to exercise his or her position of power extends even further. At times, swimmers want the coach to be the sole decision maker in whether an injury is severe enough to warrant a stop in training:

“…he started to take it really seriously and it was all like ‘if you hurt, get out’. But it was all on me, which I didn’t like. I want them to just be like ‘you look like you’re hurting, get out’.” (S5)

There appears to be a certain comfort level for the swimmers in ceding control to the coach. It is likely that obeying the coach and recognizing them as an authority figure is part of swimming culture, engrained in swimmers from a young age. S2 insisted that he would defer to the coach, even if he didn’t agree with the decision: “I know the coach has been through way more swimmers than just me…so if they told me to get out I would listen, I would not disrespect the coach”. In fact, some swimmers feel that being forceful with athletes is an essential part of coaching, particularly at an elite level:

“[A coach needs to] know what they want, and actually want you to do it…Like a group of high performance athletes should be coached by someone who is like ‘no you HAVE to do this or get out’. Like it’s no longer what you want to do.” (S1)

Showing deference to the coach is so engrained that many swimmers find acute discomfort in opposing the coach:
“When I do go against their will in saying that I shouldn’t keep going, and I choose to get out, then it’s hard for me to walk away with my head held high even though you’ve done a good thing by listening to your body.” (S3)

A darker side to the coach-athlete power imbalance was also revealed in the interviews. In some cases, coaches can be outright punitive towards athletes when the athletes defy the coach’s wishes and stop regular training. This can take several forms, such as using hard training as punishment:

“I went up to her and was like ‘I’m not going to ruin my swimming career for this, I’m going to take the week off that [the doctor is] saying and I’ll kick and run’. And she kicked and ran me into the ground. I cried every practice…they gave me a coach of my own and were like ‘ok make her do the hardest thing until she cries’. They told them to make me vomit.” (S1)

This example illustrates how vulnerable an athlete is, both emotionally and physically, when a coach chooses to abuse his or her position of power. Punishment can also take more subtle forms, such as manipulating the athlete’s emotions. S3 describes his experience of this: “…there were lots of times when I stayed in against my own will. Just to not have to feel the guilt and judgement associated with getting out”.

While some athletes had experienced feelings of pressure from the coach to continue through injury, others reported the opposite experience. The coach also has the power to force the athlete out of the water when the athlete would prefer to continue. According to S6, the coach response to disclosing an injury is “usually they either tell you to get out and ice…or grab a kickboard.” This can lead athletes to conceal their
injuries as a way of gaining control over their situation. As S4 says: “I think there are a lot of times that you just keep it [the pain] to yourself because you don’t want to stop.” By choosing when to conceal their injuries and when to disclose, athletes can shift the power dynamic in the relationship with the coach and gain the upper hand:

“…my shoulder was starting to hurt but I didn’t want to say anything because I had already missed practice and I was already just kind of just starting to get back into swimming…so I didn’t say anything because I didn’t want to get out of any more meters than I already had.” (S5)

The swimmers also appear to unconsciously engage in concealment as a means of control. When asked if he had ever concealed an injury from a coach, S2 responded: “No, never. If my shoulders were hurting I would speak up and tell my coaches right away.” However, he later said: “I wouldn’t say anything until the practice would end.” Even though S2 viewed himself as being completely forthright with his coaches and never concealing when he was in pain, he still—apparently unconsciously—engaged in the practice of delaying disclosure in order to remain in the training session or competition.

Trust.

The level of trust between the participants and his or her coaches emerged as another significant influence on injury reporting behaviour. If athletes feel that the coach does not trust them and believe in them, they will be far less likely to disclose an injury. S3 described how he would exit the pool and leave the practice without talking to his coaches, or even making eye contact. He explains: “because the coaches would question
whether or not I was being honest, or if I was just being a baby, getting out early.”

Questioning of the athlete’s truthfulness can significantly undermine the coach-athlete relationship and lead athletes to stay silent about being injured:

“A bad attribute of a coach is not listening to someone who says they’re injured. I told her and she didn’t believe me…I definitely have an issue of not saying when it hurts, until it’s a bit too late…it was because she didn’t believe me.” (S1)

Various coaching behaviours led the athletes to feel a lack of trust and belief from their coaches. Some coaches did not take athletes at their word and needed physical proof that the athlete was in fact injured:

“At first he didn’t really think anything about it, like that anything was really wrong, but then I had X-rays and everything and it showed my stress fracture. And then once he had proof he started to take it really seriously” (S5)

Others experienced instances of coaches explicitly expressing disbelief that the athlete was telling the truth:

“I definitely have images of [my coach] in my mind, just expressing like complete disbelief and questioning my judgment in getting out.” (S3)

These negative reactions can drive athletes to stay silent for fear of losing a coach’s trust. For S5, withdrawing from training due to injury causes significant feelings of discomfort and worry that she will negatively affect the relationship she has with her coaches. As she says: “I feel more guilty because I want my coaches to trust that I am doing my best.”
On the other hand, when coaches demonstrate trust and belief in their athletes, this has a positive impact on the coach-athlete relationship and leads athletes to be more forthcoming when they are injured. Having the coach’s external validation of the decision to stop in a training session due to injury can help athletes be at ease with the decision:

“You’ll feel better about your assessment of your health if you’re getting validation from your coaches. That makes you feel more comfortable” (S3)

This validation helps athletes feel more supported and more trusted by the coach. In turn, they are more comfortable speaking to the coach and more likely to speak up if they are injured:

“I think I just feel a lot more comfortable speaking up to my current coaches, like they won’t judge me or not believe me, and I trust that they’re going to help me more…with my old coaches I was worried that they would not believe me and be like ‘oh you’re fine, it doesn’t matter’ type of thing.” (S5)

Injury can be a traumatic experience for an athlete, and feeling that the coach trusts and supports him or her may be of great assistance to the athlete in terms of dealing with the experience. As S3 notes: “…they reacted in a supportive way and I walked away feeling better about myself and like…this was a good decision and moving forward in the right way.”

It is clear from the participants’ experiences that trust between the athlete and the coach is extremely important for having honest communication about the athlete’s health
status. So how can the coach build this trust? Various perspectives emerged as to how this trust develops. Some athletes find that a history of accomplishments and successful results instils trust in the coach:

“Seeing is believing. Like seeing what they’ve produced and how they’ve produced it is unbelievable. So I trust from...seeing what they’ve done.” (S1)

A coach can also build trust by demonstrating passion for and personal involvement in their position. As S4 explains: “seeing the way that my coaches loved being there, it just made me that much more comfortable.” Athletes are also more likely to trust a coach if they feel the coach trusts them:

“I guess it’s just the way that they trust me. That’s an easy way to gain my trust.” (S1)

Openness/Caring.

For all the participants, feeling that a coach was open to communication and was caring about them personally helped them to feel more comfortable communicating with the coach about anything, including injuries. Athletes were more likely to disclose an injury if they felt that the coach cared about them and their welfare, as S2 describes: “I think here the coaches are more nice about it, they understand what’s going on, so I don’t think swimmers really hide if they are in pain.” For S6, the potentially stressful experience of telling his coach he was injured at a meet was made easier by his coach’s supportive reaction:
“I guess he was kind of disappointed, but…I got the sense that he cared more about me being healthy and being able to continue swimming, versus racing right now, and racing just for the sake of racing.”

All the participants want to feel that a coach cares about them as a “whole person” and not just as a swimmer:

“They should care a lot about you, not just your performance in the water but you as a whole person.” (S6)

S3 agrees, and feels that caring about the whole person is even critical for athletic success:

“An athlete is a person, and if you want to develop the athlete you have to understand the person as a whole.”

In fact, many of the participants see their coaches as parental figures. Elite athletes spend a great deal of time with their coach, often more time than they spend with their own parents. Seeing the coach as a caring and supportive presence, and feeling that the coach cares about them as a person and not just as a swimmer, allows athletes to feel more comfortable communicating with the coach:

“We always make jokes that they are like our second parents essentially, because you know they do care about us, not just because we’re swimmers but they care about us personally, and you know you can reach out to them at any time.” (S4)
There are many ways that a coach can demonstrate caring and openness to an athlete. Athletes can feel more connected to a coach if the coach shares some of his or her personal life with the athletes. When a coach knows a great deal about an athlete on a personal level, this can create a sense of emotional vulnerability in the athlete. Some reciprocal personal exposure on the part of the coach can help the athlete to feel more connected:

“I think that they have to be open about themselves…I like to know as much about the people I’m working with as they know about me. They’re going to see me cry, they’re going to see me angry, they’re going to see me at my best and my worst moments. So I want to know about them too.” (S1)

Coaches can also indicate they are open and approachable by being physically available for the athletes and responsive when athletes reach out. Being easily accessible to the athletes gives a sense of welcome and allows athletes to feel more comfortable communicating with their coaches:

“They’re usually always in their office if they’re not coaching, and their doors are literally always open…You can always talk to them, or email them, or call them…And they’ll either respond immediately or they’ll be there to talk to you.” (S4)

When athletes feel more comfortable and know that the coach will be responsive, it stands to reason that athletes may be more likely to communicate freely with coaches about everything, including injuries. The participants also felt that a coach was more
open if the coach welcomed their feedback and listened to their input. S3 explains how he feels most engaged with and connected to a coach:

“It definitely goes back to developing somewhat of a give and take, and making yourself approachable. Having it be known that you’re a coach who is willing to listen to your athletes and that you value their opinions, and you encourage their feedback.”

A coach can explicitly state that they are available for the athletes to communicate with, and can even instruct athletes to tell them when they are injured. Some participants felt this strategy was most effective in opening and/or maintaining lines of communication. According to S6: “I think it would be a good idea to let the swimmers know, that if you have an injury you should let the coach know.” If athletes know that the avenue of communication is always open and that the correct thing to do when injured is to tell the coach, they may be more likely to disclose an injury.

Investment.

While a “give and take” dynamic in the coach-athlete relationship can help the athlete feel cared about and connected to the coach, it can introduce other feelings related to personal investment. Athletes can feel they ‘owe it’ to a coach to continue training and be able to train and perform according to perceived expectations. According to the participants, when an athlete feels that a coach has ‘invested’ in him or her, the athlete wants to show the coach that the investment was worthwhile. As S6 explains: “if they have a vested interest in you, you’ll definitely want to show them that their work is
paying off.” When athletes perceive their coach to have expectations of them, awareness of those expectations can heavily influence their decisions:

“It’s part of knowing that your coach expects something of you. You want to show him that you are doing something, that you are not just wasting each other’s time.” (S6)

Awareness of coach expectations and feelings of ‘owing’ the coach for their time can drive athletes to continue to swim while they are injured:

“…if a kid sees the coach being really upset if someone misses the workout, they’ll be less inclined to speak up. Because they don’t want to disappoint the coach.” (S6)

For S5, feelings of reluctance to disclose an injury come from not wanting to disappoint her coach. Furthermore, she feels that if she has to stop because of injury, her coaches will pay her less attention:

“…coaches are the same in that they’ll give you as much as you give them. And I feel that if I’m not giving enough then they won’t care about my races as much or pay attention as much to my swims.”

Athletes can also feel that leaving practice is a sign of disrespect, which could arise when they feel that the coach has put time and energy into helping them to improve:

“I think that getting out of practice shows disrespect to your coach, you know, to like leave in the middle of practice…is kind of unfair.” (S2)
Some of the participants believe that if a coach perceives that an athlete doesn’t care, the coach will care less about that athlete in turn, and provide less help and attention:

“I’ve seen other people do it [miss training] to more extreme extents, and they don’t pay attention to them as much because they know they’re not trying as hard.” (S5)

These feelings can push an athlete to continue swimming through pain and injury in an effort to be seen in a positive light by the coach. As S5 describes: “I know that I do want to try hard and I do want their help. So I just don’t want them to see me as one of the extreme cases, so they don’t care anymore.”

While feelings of owing a coach for his or her investment can lead an athlete to feel pressured to perform and ‘pay back’ the coach, with potentially negative consequences, the perception that a coach is invested in them can also breed positive feelings. This personal investment can help the athlete to feel supported in their training and their quest for success:

“You feel like you’re not alone in trying to achieve your goals and you always have someone with you who is going to point you in the right direction. And so it sort of becomes like you’re with him in achieving your goals.” (S6)

A personal investment dynamic between an athlete and a coach can both strengthen the relationship through feelings of being in a partnership, and lead the athlete to make decisions based on feelings of ‘owing’ something to the coach.
Team Level Factors

In addition to individual and dyadic factors, two factors were found that acted at the level of the team, isolation and atmosphere (Figure 3). These factors involve interactions among the injured athlete, the coach(es), and the athlete’s team mates. Although swimming is competed individually, it is trained in a team environment and the athletes are influenced by their fellow team members.

Isolation.

Five of the six participants found injury to be a very isolating experience. As previously discussed, the swimmers indicated that when they were injured they were given alternate sets to do during the practice, which spawned feelings of isolation, as S3 notes: “When you have an injury and you have to do things differently from other people, it makes you feel a certain level of isolation.” The swimmers found it was very difficult to be separated out from the team. The feeling of ‘falling behind’ is very common:

“Well part of it is that you can’t be in there with them, training, being part of the team…But the biggest thing is that it just reminds you that…if you’re not constantly training, you’re not going to do as well compared to everyone else.”

(S6)

These feelings can be magnified according to the phase of the season that the swimmers are in:

“Especially when it’s mid-season and competition season is coming up, the last thing you want to have to do is to sit out and nurse an injury when everyone else
is in the pool, and you feel like you’re falling behind…there’s definitely a huge sense of urgency there.” (S3)

The physical and mental separation that came with ‘falling behind’ their teammates seemed to provoke profound feelings of isolation in the participants.

For others, the feeling of isolation when injured comes from worry over making a negative impression on the rest of the team. As S5 puts it:

“It kind of looks bad because everyone always hurts while they’re swimming and if you’re the one who says something or you’re the one sitting out it makes you look worse cause like everyone is working hard and you’re not doing something…someone who is just as bad or worse might still be training and pushing through it, and you’re sitting out on the side doing nothing.”

Avoiding the isolation that accompanies being injured is a major reason why swimmers are reluctant to disclose an injury. As S1 explains: “…it[concealment]’s because you want to do what everyone else is doing. You don’t want anyone else to get ahead of you. It’s hard to see that.”

**Atmosphere.**

More than half of the participants identified that the atmosphere of the team influences their decision to report an injury. The atmosphere of the team is influenced by the moods and behaviour of all its members, including the coach:
“…if they [the coach] don’t want to be there, you feed off their energy as much as you feed off the other swimmers’ energies…I can feed off when coaches are in a bad mood.” (S1)

An individual disclosing an injury can have an unwanted negative impact on the atmosphere of the whole team, as S6 explains: “I don’t see a benefit to vocalizing it. Especially to my team mates, if I tell them I’m injured, that just brings down the mood.” Protection of the team atmosphere and the integrity of the training session can push some swimmers to remain silent about an injury:

“…if I get out other people are going to look at me and be like ‘oh, he’s out, well I want a sip of water’ or ‘I’m hurt, I want to get out too’. So I think that aspect of it drives me to stay in the water and I wait for the practice to end [to disclose]”. (S2)

This underlines the importance of the team atmosphere to the swimmers, even though swimming is essentially an individual sport. Why is the training atmosphere so important that athletes will continue to swim while in pain in order to preserve it? According to S6, the atmosphere at a training session is a major determinant of motivation for the athletes: “as long as they [the coach] are keeping a good atmosphere in the pool, that’s more likely to motivate me, because in a bad atmosphere I will less likely want to do work.”

Team level factors are important because they help to describe the context in which the coach-athlete relationship is taking place. The coach-athlete relationship doesn’t occur in a vacuum, and will be affected by the dynamics in the larger group, in this case the team.
Each of the factors described above influences an athlete’s decision of whether or not to report an injury. It is clear that for an elite athlete, this decision is difficult and highly vulnerable to influence from both internal and external sources. It is highly likely that many of these factors are acting simultaneously and are interacting with and mediating one another. The nature of this interaction and the mechanisms of same are beyond the scope of this study, however could be an interesting avenue for further research. The next section discusses the findings of the present study with respect to those of previous studies and in relation to relevant theory.
Chapter 5: Discussion

The purpose of this study was to examine the influences of the coach-athlete relationship on an athlete’s decision to disclose versus conceal an injury. It became apparent that a greater breadth of factors needed to be taken into account in order to understand these decisions. Qualitative interviews of six varsity swimmers from a Canadian university revealed 10 factors: isolation, atmosphere, power, trust, caring/openness, investment, identity, pain, frustration and coping. These were grouped into three over-arching categories, named for the social level at which they influenced the athletes: team, coach-athlete, and individual. Through Grounded Theory the PI-AIR Model was developed to encapsulate all of the dimensions found in the data from this study, as no one existing theory was deemed appropriate to capture all of the results. However, certain facets of the results can be interpreted through established psychological theories. This section will examine aspects of the findings through the lenses of social exchange theory and of self-determination theory (SDT). The latter will be discussed via the Motivational Model of the coach-athlete relationship developed by Mageau and Vallerand. These two theoretical perspectives were chosen in conference with the advisory committee, and were selected because they were highly salient in the data. Limitations, directions for future research, and practical implications will also be discussed.

The PI-AIR Model

In order to conceptualize the relationship among the different levels of factors influencing injury reporting emerging from the interviews, a model was developed
(Figure 4). The theme categories are arranged in the manner illustrated in the model to represent the change in the level of social focus between each category. Individual factors are highly socially focused, involving only the single injured individual who is experiencing the situation. Coach-athlete factors are less socially focused as a second actor is involved in the situation, and these factors depend on a dyadic exchange and actions from both parties. Team factors operate at a yet more diffuse level, involving interactions between the injured individual and his or her team mates and coaches. A concentric circles shape was selected as the most appropriate graphical representation of the data categories. It depicts the individual at the center in the smallest of the circles, and each circle widens as more actors become involved, progressing to two actors at the coach-athlete level and the larger group at the team level. The lines between each of the circles are blurred in order to represent the dynamic nature of the boundaries between the individual, the coach, and the team. While the exact relationships between each of the factors and the mechanisms by which they interact and mediate one another remain unknown, it is highly likely that there is some cross-category interaction between factors.

Whereas some of the findings of the present study are novel, others of the findings are supported by previous research. Van Wilgen and Verhagen (2012) used qualitative interviewing to examine athlete and coach beliefs around risk factors for the development of overuse injuries. Athletes in that study identified poor communication with the coach and not wanting to give up for the coach as two extrinsic risk factors for developing an overuse injury. The former finding is consistent with the finding of the present study that indicates poor communication between an athlete and their coach will decrease the likelihood of an athlete reporting an injury (and therefore more likely to continue training
and do further damage, resulting in the development of an overuse injury). The finding of van Wilgen and Verhagen is consistent with the finding of this study that athletes will conceal an injury from the coach in order to avoid feeling that they have disappointed him/her.

Similarly, the importance of athletes feeling closely connected to their coach, and that the coach cares about them, is consistent with findings of prior research. Phillipe and Seiler (2006) conducted a qualitative study of male swimmers’ impressions of the quality of the coach-athlete relationship. One of the major findings of that study was the importance of a deeper connection and intimate relationship to the effectiveness of the working relationship between athlete and coach. Fry and Gano-Overway (2010) found a positive correlation between a caring climate (an atmosphere of caring created by the coach) and athletes’ attitudes toward their coaches. These findings underline the importance of caring and closeness to a strong and positive coach-athlete relationship. Without this type of bond, it seems unlikely that an athlete would feel comfortable communicating sensitive issues, such as an injury, to his or her coach. As was demonstrated in this study, when athletes feel close to the coach and that they can trust the coach, they are more willing to communicate with the coach and disclose their injuries.

A series of studies examining athletic identity and mood in the context of sports injury identified a positive correlation between feelings of athletic identity compromise and depression scale scores (Brewer, 1993). The more an athlete felt his or her identity as ‘athlete’ was in jeopardy, the higher he or she scored on the depression sub-scale of the Profile of Mood States (POMS). This correlation existed whether the injury was real or
imagined. The observation in the current study of athletes avoiding dealing with an injury in order to protect their identities as ‘athletes’ fits with these earlier findings. The participants may have been using denial to avoid experiencing the negative feelings that are associated with threats to personal identity.

Bartholomew, Ntoumanias and Thøgersen-Ntoumani (2009) reviewed the types of controlling motivational strategies derived from SDT that can be found in a sports coaching context. Results from the present study fit into some of the group’s proposed categories. Aspects of the athletes’ feelings of investment can be tied in to Bartholomew et al.’s Conditional Regard category of strategies. In this sense, the reported feeling of needing to continue to train through pain in order to retain the coach’s’ attention and feedback demonstrates that this attention is conditional on an athlete always completing full training. The participants’ experience of punishment by the coach following injury disclosure is a strong example of Bartholomew et al.’s Intimidation Behaviours category. These examples demonstrate a clear connection between controlling coach behaviours and some of the results of this study.

There are some links between the results of the current study and elements of Jowett’s 3Cs + 1 model of the coach-athlete relationship. The need expressed by the athletes of feeling a close personal connection to their coaches, and that their coaches care about them as a whole person, ties in to the 3Cs construct of Closeness. Elements of the construct of Commitment can be seen in the Investment factor, in terms of the athletes’ feelings of working together with their coaches towards a common goal. Furthermore, the notion of owing the coach for invested time and effort echoes the concept of responsiveness found in the Complementarity construct.
While several pieces of the results of this study are consistent with earlier athletic injury research, no previous study paints such a complete picture of the influences on athletic injury reporting. The proposed PI-AIR Model attempts to incorporate the many pieces of the puzzle, both novel and previously described, into one coherent and organized structure.

Analysis with Existing Theory

Social Exchange Theory.

The results from the participant interviews fit with aspects of Social Exchange Theory. Social Exchange Theory was first coined in the 1950s by George Homans, who proposed that the behaviour of two persons involved in a social interaction is governed by cost and reward appraisals (Homans, 1958). Each person chooses from the many alternatives of behaviour available to him or her by evaluating the value of the reward in relation to the cost of each possible course of action. In this sense, social interaction is characterized as an economic transaction, with behaviour as a function of payoffs (Cook & Rice, 2003).

Examples of this are present in the interview data such as when S5 continued to train through injury in order to preserve her coaches’ impressions of her work ethic. In this instance, S5 had at least two possible courses of action available to her: stay quiet and continue to swim while in pain, or disclose her pain to her coaches and follow their directions. Each of these options has associated costs and rewards. S5 evaluated the reward of continuing to be held in esteem by her coaches and continuing to receive their attention as more valuable than the reward of reducing her pain, even though the cost was
that she would continue to experience pain and do possible further damage to her shoulder. In making that value judgment, S5 chose to continue swimming without revealing her pain to her coach.

Social exchange theory carries social interactions beyond economic characterizations with the concept of social power. There are two main assertions connecting the concept of social power to social exchange theory: (a) power is entirely relational, and (b) power is actually potential power resulting from unequal resource distribution among the actors in a dyad or network (Emerson, 1962). These qualities are easily seen in the coach-athlete relationship where the power of the coach is only present in the context of coach-athlete relations, and this power can be considered a function of the resources held by the coach (e.g., knowledge, special equipment, facility access) that the athlete considers valuable. Results from this study clearly demonstrate that the power dynamics between an athlete and his or her coach have a strong influence on the athlete’s decision to report an injury.

The Affect Theory of Social Exchange (Lawler, 2001) goes another step further and incorporates emotions into the social exchange process. According to this theory, outcomes of an exchange confer emotional effects on each actor of varying degrees of positive or negative valence (Lawler, 2001). Examples of this concept can be found in the participant interviews. Some of the participants experience positive emotions from feeling that they have pleased the coach. In comparison, feelings of disappointing the coach are accompanied by negative emotions. The Affect Theory of Social Exchange also states that resultant emotions experienced from an exchange can govern behaviour in future exchanges. Looking again at the experience of S5 as an example, this concept
appears to be present in the data. Negative emotions experienced by S5 in past instances where she had stopped swimming due to pain contributed to her decision to conceal her injury and continue to train. These negative emotions associated with stopping become a ‘cost’ of that course of action, and avoidance of same becomes a ‘reward’ of the alternative behaviour. Although Social Exchange Theory can account for some of the findings of the present study, many aspects of the results are outside the realm of social exchange. Therefore, there was a need for a more comprehensive model such as the PI-AIR Model.

The Motivational Model.

According to the Motivational Model (Figure 5), the behaviour of a coach influences the levels of intrinsic and self-determined extrinsic motivation in an athlete (Mageau & Vallerand, 2003). This is mediated by the athlete’s perceptions of SDT’s three basic psychological needs: autonomy, competence and relatedness (Ryan & Deci, 2000). Athlete perceptions of the three needs are determined primarily by the level of autonomy-supportive behaviour of the coach, and secondarily by the amount of structure provided by the coach and the amount of personal involvement shown by the coach (Mageau & Vallerand, 2003). There is an enormous body of research on the application and effects of SDT in several arenas, including sport, which supports the tenets of this theory.

The Motivational Model can be applied to the data from the present study in two different ways. As this study did not gather any data on coach personal orientation, coaching context, and coach perceptions of athlete behaviour and motivation, these
aspects of the Motivational Model will be omitted from the Discussion. The concept of
injury reporting can be substituted for the ‘athlete intrinsic and self-determined extrinsic
motivation’ construct in the model. In this characterization, coach autonomy-supportive
behaviour along with coach-provided structure and coach personal involvement would be
the main influences in determining whether or not an athlete will report an injury, through
the mediating effects of the athlete’s perceptions of the three basic needs. An athlete
would be more likely to report an injury if he or she feels that these needs are being met,
that is if he or she feels competent, autonomous, and related to the coach. This is bourne
out in some of the findings. For example, this study found that when an athlete feels
more comfortable with and connected to the coach (i.e., stronger feelings of relatedness),
he or she will be more likely to disclose an injury. In addition, this study also found that
athletes will be more likely to report an injury if they feel that the coach trusts that they
are being truthful and respects their judgment. A sense of trust and respect from the
coach increases an athlete’s feelings of competence (Mageau & Vallerand, 2003).
Furthermore, this study shows that when a coach employs controlling (i.e., non-autonomy
supportive) behaviours, such as punishing an athlete for stopping training, the athlete is
less likely to disclose an injury. Both the Motivational Model and the findings of this
study imply that if a coach employs autonomy-supportive behaviours this will increase
the likelihood of an athlete reporting an injury.

Conversely, disclosing an injury—and potentially being forced out of regular
training—could in and of itself threaten an athlete’s intrinsic and self-determined
extrinsic motivation. As was demonstrated in the results of this study, much of an
athlete’s personal identity is wrapped up in the practice of their sport. Threatening their
identities could undermine athletes’ perceptions of autonomy and competence. Being forced to take time off from training and feeling as if they are falling behind their team mates and competitors would impair athletes’ perceptions of competence. The feelings of isolation that participants reported would undermine perceptions of relatedness to the team. Altogether, these effects would be very damaging to an athlete’s sense of intrinsic and self-determined extrinsic motivation, similar to the effects of athletic identity threat on feelings of depression that Brewer (1993) found. It is possible that in an effort to preserve their perceptions of the three needs (and by extension their levels of motivation) athletes could be less likely to report an injury.
Chapter 6: Conclusion

The team, coach-athlete and individual factors identified in this study that influence an athlete’s decision to report an injury comprise an important finding. Many of the factors are supported by previous research into the coach-athlete relationship and athletic injury. However, to the best of our knowledge this is the first study to date to examine, describe, and combine all the levels of influence into one model. The PI-AIR Model is a graphical representation of factors that emerged as central to an athlete’s decision to report an injury. Whereas aspects of the findings can be described by the existing psychological notions of social exchange theory and self-determination theory (through the Motivational Model), the full picture cannot be accurately captured through pre-existing theory.

Limitations and Future Directions

The present research has some inherent limitations. The most notable is that data were collected on only one side of the coach-athlete relationship. This is justifiable given the focus of this study on the athletes’ perspectives; however, a more complete picture may have emerged if data from the coaches’ perspectives were also included in the analysis.

A second limitation is that all participants were recruited from the same university team. While none of the swimmers had the same history and career path leading to their current team, they all had the same coaching staff at the time of the study. One could argue that current experiences would be the most salient and therefore the swimmers
would be more likely to refer to their current coaches when answering interview questions. This could possibly lead to a limited amount of data. During the interviews, steps were taken to mitigate this effect such as asking participants about past coaches or prompting them to describe differences between their past and current coaches. Whereas it cannot be said for certain that a bias toward describing the current coaching staff was eliminated, the data include a multitude of references to experiences with past coaches.

Third, the interviews in this study were conducted retrospectively. Only one of the participants was currently injured at the time of data collection. Retrospective accounts have the potential to be clouded by the distance of time and a bias to recall experiences of a certain nature and fail to recall others can encroach on participants’ self-reports. People can misremember occurrence and frequency of a variety of past events (Jobe, Tourangeau & Smith, 1993). The semi-structured nature of the interview questions may have helped to combat this bias. More open-ended and flexible interview styles can enhance information recall (Belli, Shay & Stafford, 2001).

Notwithstanding its limitations, the current study provides valuable insight into the factors influencing an athlete’s decision to disclose an injury. What emerges is a complex picture with both instrumental and affective elements pertaining to the individual athlete, the coach-athlete relationship, and the team dynamic. The Pyramid Model provides a multi-level graphic representation of the findings. Further research is required to more fully elucidate these complexities.

Further investigation is needed to deepen our understanding of some of the factors at play. The recurring themes of investment and loss remain to be fully explored. The
related themes of power and control, and how all of these themes are mediated by swimming culture, need to be more completely explained to provide a comprehensive explanation of the processes underlying an athlete’s decision to disclose or conceal an injury.

The ways in which the factors influencing an athlete’s decision interact with and mitigate one another remain to be described and understood. The pyramid model is in its infancy, and a description and representation of the relationships between the factors will be crucial to further develop the model. Possible gender differences in the way that an athlete arrives at the decision to report or conceal an injury could also be explored. Gender differences in the way athletes respond psychologically to injury have been previously demonstrated (Granito, 2002). Finally, it remains to be understood how coaches and other sports personnel can best mitigate the factors inhibiting timely disclosure of injuries. This is the ultimate goal of this avenue of research. Early disclosure of injury is critically important for the physical, mental, and emotional health of an athlete, both short- and long-term. By identifying the factors involved in the decision-making process, this study provided an important ground-breaking base of knowledge from which to base future investigation. The ultimate goal of this line of research is to provide coaches and managers with a set of guidelines to promote the judicious disclosure of athletic injury. Ideally, these guidelines could be used to educate athletes about the importance of early injury disclosure and would assist coaches in the creation of environments that facilitate and encourage athletes to disclose injuries. Earlier injury disclosure would allow team doctors and trainers to intervene with treatment earlier in the injury process and could potentially help speed the recovery
process and return athletes to full training more quickly. In addition, promoting the disclosure of injury among athletes may improve the accuracy of findings in athletic injury studies based on self-report. This could potentially lead to the development of more effective treatment and prevention strategies. These would be important contributions to protecting athletes’ health and enhancing their performance.
References


Appendix A

Calling All Varsity Swimmers!

You are invited to participate in a research study investigating athlete’s perceptions of the influence of coach-athlete relationships on injury reporting.

We are looking for swimmers to interview who:
- Are 18-26 years of age
- Have been swimming competitively at the club level or higher for at least 10 years
- Have had at least 3 different coaches during your career
- Have experienced a time when you trained and/or competed while injured

The interview will ask you about your experiences with swimming, coaches, and injuries, and will last 45min – 1 hour. You will also be asked to participate in a short follow-up phone call. All information will be kept confidential.

Upon completing the interview and follow-up, you will be offered a $10 Starbucks gift card.

If interested in participating, please contact Laura McClemont at:

Laura McClemont
BN 102, Department of Exercise Science, University of Toronto
Email: laura.mcclemont@utoronto.ca
Ph: (647) 458-9431
Appendix B

Interview Guide

• How long have you been swimming?
• How did you get involved in swimming?
• Please briefly describe your swimming career.
• How many coaches have you had?
  o If you had a magic wand, and could create the ideal coach-athlete relationship, what would it be like?
  o What do you think makes for a negative coach-athlete relationship?
• What is it like for a swimmer to be injured?
• Please describe the times that you have been injured during your swimming career.
• When I swam at an elite level, I sometimes felt like I couldn’t admit when something was hurting and I thought I might be injured. Has there ever been a time when you thought you were injured but didn’t want to say?
  o *Why did you not want to say?
  o *Did you eventually admit to having the injury?
    • *How did admitting it make you feel?
    • *What was your coach’s reaction when you did?
• *What do you think was the difference between the times that you reported having an injury and the time(s) that you concealed it?

Questions marked with a “*” may or may not be asked depending on the response to the previous question.

Probes such as the following may or may not be used:

• Can you expand on that?
• Can you explain what that means?
Appendix C

CONSENT FORM
University of Toronto

Investigator: Laura McClemont

1. TITLE OF PROJECT
To tell or not to tell? An exploration of coach-athlete relationship factors in athletic injury reporting.

2. GOAL OF THE STUDY
The purpose of this study is to explore athletes’ perceptions of the influence of coach-athlete relationships on injury reporting using a qualitative approach.

3. PROCEDURES
Participation in this study consists of engaging in an interview with the principal investigator about your experiences. You will be asked questions pertaining to your athletic career, your coaches (both past and present), and previous or current athletic injuries. The interview should take no more than one hour to complete. By signing this consent form, you are agreeing to have your responses to the interview questions audio-taped.

5. ADVANTAGES OF THE STUDY
By participating in this study you can gain experience in psychological research.

6. DISADVANTAGES OF THE STUDY
There is a possibility that recounting some of your experiences may cause some emotional distress. You are free to refuse to answer a question and/or terminate the interview at any time.

7. CONFIDENTIAL NATURE OF THIS STUDY
Data will be stored anonymously and confidentially. Only the researcher directly in charge of the study will have access to the data.
The anonymous data will be held indefinitely.

8. WITHDRAWAL FROM THE STUDY
Please know that participation is entirely voluntary, and you are free to withdraw at any point during the study with no consequence. You may ask questions at any time.

9. COMPENSATION
You will not be compensated for your participation.

10. QUESTIONS
If you have any further questions, I can be reached using the following information:
Laura McClemont  
Department of Exercise Science  
Email: laura.mcclemont@utoronto.ca

**DECLARATION OF CONSENT**

The investigator has explained all the aspects of this study to me and my questions have been answered to my satisfaction. I _________________________(Participant) have read the above description with the investigator, ___________________________ (Investigator). I fully understand the procedures, advantages and disadvantages of the study, which have been explained to me. I freely and voluntarily consent to participate in this study entitled “To tell or not to tell? An exploration of coach-athlete relationship factors in athletic injury reporting.”

A copy of this consent form has been given to the participant named below.

<table>
<thead>
<tr>
<th>Name of Participant</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
</table>

________________________

Name of Person Conducting the Informed Consent Discussion

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
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Appendix D: Figures and Tables
Figure 1. Individual level factors influencing injury reporting decisions.
Figure 2. Coach-Athlete level factors influencing injury reporting decisions.

- **Power**: “…there were lots of times when I stayed
- **Trust**: “…my current coaches, they won’t judge me
- **Caring**: “They should care a lot about you, not just
- **Investment**: “If they have a vested interest in you, you’ll

- **Perceived Need/Punishment**
- **Manipulation**
- **Belief**
- **External Validation**
- **Support**
- **Whole Person**
- **Welcoming/Approach**
- **Owing**
- **Payback**
Figure 3. Team level factors influencing injury reporting decisions.

- **Isolation**: “When you have an injury and you have to do things differently from...”
- **Atmosphere**: “I don’t see a benefit to vocalizing it. Especially to my team mates, if I...”
- **Missed Training/Separation**
- **Falling Behind**
- **Impact**
- **Motivation**
Figure 4. The PI-AIR Model.
Figure 5. The Motivational Model of the coach-athlete relationship. Adapted from Mageau & Vallerand (2003).
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<th>S4</th>
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<td>13</td>
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<td>4</td>
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<tr>
<td>Number of Injuries</td>
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<td>many</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Type</td>
<td>Hip (acute) Feet—Bilateral (chronic) R Knee (chronic) R Shoulder (acute) L Shoulder (acute)</td>
<td>Shoulders—Bilateral (chronic)</td>
<td>R Shoulder (acute) Muscular Strains (chronic)</td>
<td>Back (acute) Shoulder (chronic)</td>
<td>Back (acute) Shoulders—Bilateral (chronic)</td>
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Table 1. Summary of participant information.