EXPLORING INDIVIDUALIZED CONSIDERATION OF ATHLETES IN COACHING PRACTICE

By

Alysha Matthews

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ABSTRACT

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Previous research demonstrates the connection between sport and positive youth development (Fraser-Thomas, Côté & Deakin, 2005), noting that coaches can play a pivotal role in athletes' lives. Researchers have studied transformational leadership in coaching literature along with its relationship to athlete development (Price & Weiss, 2011). One component to this concept is individualized consideration, where leaders show care through supporting their followers' individual needs (Turnnidge & Côté, 2018). This study explored what the process of individualized consideration for youth sport coaches looks like and how consideration differs for each of the individuals they coach. Semi-structured qualitative interviews were conducted with 10 male minor hockey coaches whose teams consisted of 9-13 year old male athletes. Further, with personal characteristics of coaches influencing the use of effective coaching practices (Horn, 2008), this study looked to explore the individual skills and tendencies of participants. Surveys were completed to provide description of the context and characteristics of each individual coach. This exploratory mixed-methods design allowed for an in-depth look into the experiences of individual coaches, which proved to expand on the aims of the study and provide richer results of the environment of minor hockey. Findings show that participants are attempting to focus on development with individual athletes, however they are constrained by contextual and structural factors of their sport environment.

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CHAPTER I

INTRODUCTION

Positive youth development is an approach often used when striving to help children develop. Specifically, research in youth sport has provided strategies for stakeholders to consider when implementing a positive youth development approach to their contexts. Influential to the process of development through sport are coaches, their role incorporates interacting with athletes as well as being effective in their professional responsibilities. With varying coach effectiveness models attempting to supply coaches with a solution, the role of a coach seems challengingly diverse and incalculable. Determining how a coach can be effective and support positive youth development within varying contexts and with each individual child they coach is a sizeable task.

Positive Youth Development

Positive youth development (PYD) is a strength-based approach that considers development as plastic and influenced by individual characteristics of the child as well as the environment that the child is a part of (Lerner, 2005). Research has suggested that youth sport, when catering to athletes and supporting the 5C's (competence, confidence, connection, character, and caring; Lerner, 2005) throughout their experience, can influence physical, emotional and social development (Fraser-Thomas, Côté & Deakin, 2005). In order to support PYD, researchers and practitioners need to consider developmental differences of children. Further, social support is linked to helping children find their own voices and to guiding exploration (Flum & Kaplan, 2012), as well as to building their sense of agency and ability to

face adversity (Larson, 2011). Building a supportive relationship with an individual involves providing a caring environment and resources (Bergin & Bergin, 2009), as well as a culture that is accepting of emotions (Larson, 2011).

Coach Influence

A coach is a vital aspect of the social support found in an athlete's sport experience, especially in the context of youth sports (Horn, 2008). Due to the time they spend with youth athletes, coaches may be influential to multiple areas of athletes lives (i.e. physical, emotional, moral, academic, etc; Gould, 2016). They are given the responsibility to help diverse children through adverse situations and develop life skills to prepare them for the future. Coaches often believe themselves to be agents of PYD (Vella, Oades & Crowe, 2011) with success coming to those that are open to understanding sport as a developmental tool (Camiré, Trudel & Forneris, 2011). Fraser-Thomas and colleagues (2005) highlight personal characteristics, creation of a supportive culture, and communication style as coach influences that may direct positive youth outcomes.

Coach-Athlete Relationship

Research looking further at a coach's influence evidences that a healthy coach-athlete relationship in sport can create a social environment that supports growth (Holt et al., 2017). The process of building (along with keeping a quality) relationship with athletes is paramount to a coach's influence on PYD (Jowett, 2017). Simply stated, Jowett and Ntoumanis (2004) proposed that closeness, commitment, complementarity and co-orientation (i.e., the 3C's + 1 model) are benchmarks of a healthy coach-athlete relationship. Emphasizing trust, reciprocating respect as well as being aware of other's perceptions and needs can enhance the quality of relationships.

Effective Coaching

According to Côté and Gilbert (2009), an effective coach not only has a professional knowledge of sport required to be successful, but also has a grasp on interpersonal interactions and relationships where they can appropriately influence development within the athletes' context. Effective coaches are also self-aware and able to reflect in order to enhance their practice in both these professional and interpersonal domains. Further, coaches that recognize how their behaviour is perceived differently by each athlete may positively influence the athlete's developmental outcome (Horn, 2008). Thus, coaches need to acknowledge the individuality of each of their athletes within their practice to be effective. Research on concepts such as emotional intelligence, communication and transformational leadership suggest ways a coach can enhance their coaching practices (i.e., intrapersonal, interpersonal, and professional knowledge) to better facilitate PYD with their athletes.

Intrapersonal Knowledge. Emotional intelligence (EI) has been shown to be effective in business settings, however leadership in a workplace can be easily translated to coaches (Hwang, Feltz & Lee, 2013). EI can be understood as the ability to recognize any perceptions of emotions within yourself or others, expressing those emotions upon comprehension, as well as regulating emotional responses (Perreault, Mask, Morgan, & Blanchard, 2014). This construct encompasses the ability to be empathetic, trustworthy, and sensitive or attuned to others, which have all been suggested for further exploration in coach effectiveness literature (Gould & Carson, 2010). It has also been proposed that developing methods to enhance coaches' self-awareness (Miller et al., 2011) and EI (Hwang et al., 2013) are worthwhile in research and practice. This construct encompasses intrapersonal regulation of emotions and well-being, motivation, stress

management, as well as adaptability (Petrides, 2008). Mueller and colleagues (2018) found that coaches understood that their emotions could alter their athletes' affect. Through this perception, coaches who chose to alter their own behaviour to fit the needs of their players showed a proficient use of EI.

Based on the grasp the leader has of the emotional needs of his/her followers, leaders are able to support their followers by creating a caring climate (Magyar et al., 2007). In order to motivate others, coaches need to assess their athletes' current emotional levels and developmental desires (Thelwell, Lane, Weston & Greenless, 2008). Additionally, coaches show they care by using their emotional awareness to assess and perceive the needs of their athletes (Magyar et al., 2007). By being aware of the emotional state of their athletes, coaches can enhance the quality of their interactions (Mueller, et al., 2018) and respond to satisfy their athletes' basic needs (Watson & Kleinert, 2018).

Interpersonal Knowledge. The accurate perception of emotions promotes effective coaching as it allows for clear communication within the interactions between coach and athlete (Rosete & Ciarrochi, 2005; Petrides, 2009). Communication is essential to the development of healthy relationships (Davis & Jowett, 2014). To be effective, communication needs to be mutually understood; meaning the sender and the receiver have the same perception of the message (Moen & Kvalsund, 2013). Coaches that initiate clear communication benefit athletes (Gould, Dieffenbach, & Moffett, 2002) as miscommunication may lead to interpersonal issues (Wachsmuth, Jowett & Harwood, 2017). Most of the effective coaching literature discusses feedback, specifically the type or frequency, when referring to communication skills. Yet, the appropriateness of communication, or when feedback is given may be more important to further

understand (Horn, 2008). Communication requires coaches to perceive and control their own emotional states, understand the perspectives and feelings of others while deciding on the appropriate time and method to provide feedback. Coaches can tailor their messages to an individual athlete by understanding what their athlete needs in the moment along with their willingness to listen (Parcells & Coplon, 1995; cf. Gould, in press).

Professional Knowledge. The concept of transformational leadership (TFL) was developed in organizational leadership literature to provide leaders with tangible behaviours that promote effective interactions with "*followers*" in order to reach a certain goal (Charbonneau, Barling & Kelloway, 2001). Translating to youth sport research, TFL paired with PYD is used to "empower, inspire, and challenge followers to enable them to reach their full potential" (Turnnidge & Côté, 2018). Research shows that TFL behaviours can help develop strong relationships between leaders and followers, such as that between a coach and athlete (Arnold, Turner, Balling, Kelloway & McKee, 2007; Turnnidge & Côté, 2018). TFL consists of four practical components (4I's); idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Avolio, Waldman and Yammarino (1991) clearly define each of the 4I's; idealized influence refers to using respect and trust to establish a shared vision that influences followers. Inspirational motivation alludes to demanding high expectations while communicating a shared vision for followers to work towards. Further, intellectual stimulation discusses providing opportunities to reason from varying perspectives as well as give thought to innovative ideas. Finally and central to this study, individualized consideration illustrates that leaders show care through supporting individual needs. The functional use of this

concept extends further then simply one element of TFL, it is a fundamental aspect in facilitating PYD.

Individualized Consideration

Understanding child-to-child differences (Lerner, 2005) and using an individualized approach to learning (Mueller, Ruiz & Chroni, 2018; Bartlett et al., 2017; Skaff, et al., 2016) benefits the development of the individual child. Adapting to suit the needs of individuals by connecting with and caring for them is central to PYD (Jones et al., 2011; Lerner, 2005), cultivating strong relationships (Jowett, 2017), as well as individualized consideration (IC; Turnnidge & Côté, 2018). Research has shown that when an individual feels cared for, development is easier to facilitate as the individual feels supported in their relationship (Fry & Gano-Overway, 2010). Individual athletes who reported a strong affiliation with their coaches rated IC as highly required and present in their relationship (Amann et al., 2016).

In order to best assess an athlete's wants and needs, effective coaches integrate their professional, interpersonal and intrapersonal knowledge to provide IC for each athlete (Côté & Gilbert, 2009). Effective coaches are able to modify their practices to cater to the needs of each individual athlete (e.g., understanding that one athlete may require more demonstration rather than instruction when learning a new skill, compared to another). However simple this theory may sound, the translation to practice is much more difficult.

As the uniqueness of individuals shapes varying outcomes of development, there is no general way to influence all children equally with the same or "most effective" action. Appraising how to connect with or how to provide care for children may differ depending on the unique characteristics of each child. For example, understanding that one athlete may feel

supported by constructive criticism while another may require a confidante can enhance individual interactions. This uniqueness is problematic to both research and practice as multiple methods are necessary to understand the individual and more effort is required by the practitioner to consider individual needs. Therefore, research examining the process of IC is needed to provide a more efficient method for coaching practices to tailor to individual needs.

Gap in Literature

IC has been characterized as actions of caring and need satisfying (Turnnidge & Côté, 2018). With diverse theoretical evidence, research does not elaborate on what this concept of IC looks like in action nor does it discuss what areas or aspects of IC are (e.g., communication, technical assessment, relationship building, etc.). To benefit the practitioner, research should explore what the process looks like and what makes it effective in order to have a greater understanding of IC and provide practical implications for coaches to better integrate their practices with individual athletes. Therefore, there is a critical need to explore how a coach, in practice, considers each individual athlete with whom they interact. What does this process look like for coaches? To what degree does IC (or lack of it) influence their coaching actions? Is this role one that coaches understand and desire to be responsible for? These unanswered questions inform the main purpose of this research study; which is to assess how IC is depicted in the real world of sport coaches, what this looks like, and explore coaches' experiences with this concept.

Additionally, research needs to understand more about how coaches developed this ability (if present in their coaching practices) and what personal characteristics or experiences influence their understanding of individual needs. Personal characteristics developed through previous experience (coaching or personal) may impact a coach's ability to accurately consider

their athletes' individual needs. Specifically, considering the influence of EI, communication, and TFL. This study will explore how coaches became skilled in practicing IC by reflecting on their individual experiences.

In summary, coaches are influential to the PYD process as they guide athletes through their sport experience. In order to be effective, coaches combine intrapersonal (i.e., EI), interpersonal (i.e., communication) and professional (i.e., TFL) knowledge to create an optimal coaching practice. Although personal preferences of coaches advise their practice, the ability to adapt to individual athletes' needs and contexts is just as important. The gap in literature surrounds how to employ IC in a coaching practice, as well as exploring if (and how) coaches are already addressing this concept.

Purpose

The purpose of this study was to explore current youth sport coaches experience with IC. Although empirical evidence supports the importance of this concept being used in coaching practice, knowledge of practical applications of IC are limited. Therefore, this study aimed to explore coaches' assessment of athletes' individual needs, and the information they use to assess these needs, in their coaching practices. Further, this study explored the influence of coaches' IC of athletes in their coaching actions. Coaches' individual differences that may influence their use of IC with their athletes were surveyed. Finally, this study looked to inform future knowledge translation efforts to assist coaches individualize their coaching practices to meet athletes' unique needs.

Research Questions

With the exploratory nature of this research, this study was guided by research questions rather than hypotheses. Therefore, this study had four research questions:

1. How do coaches understand and assess (or not) the unique individual needs of their athletes?

2. How do coaches use (or not) their assessment of athletes individualized needs when interacting with their athletes?

3. How do coaches' personal characteristics influence the degree to which they individualize their coaching practice?

4. What information/assistance/training would coaches find useful to help incorporate a greater degree of individual consideration into their coaching practice?

To address these questions, this study used a mixed-methods approach with qualitative data holding priority. With the study being exploratory, qualitative methods allowed for an in-depth investigation into multiple experiences, whereas quantitative methods provided a description of individual characteristics of coaches. IC in coaching practice was explored through the integration process of this method.

CHAPTER II

LITERATURE REVIEW

The concept of positive youth development is discussed as the goal of youth sports, attainable through supporting learning, considering developmental differences in athletes, as well as providing social support through the process. Primarily, this role of social support in youth sports is seen through the coach-athlete relationship. How coaches are then effective in this role as social supporters of development in sport depends on three key areas of knowledge (i.e., intrapersonal, interpersonal, professional). Suggestions of theoretical concepts that would support these areas by enhancing coach's emotional intelligence, communication and transformational leadership are put forth. Individualized consideration, an element of transformational leadership, is then hypothesized as critical to connecting with and developing athletes. The applicability of individualized consideration raised questions surrounding from what and how coaches would learn to include this in their practice. Finally, relevant and innovative coach education programs that support the knowledges of effective coaching (especially individualized consideration) are discussed.

Positive Youth Development

The positive youth development (PYD) perspective is a strength-based approach that considers development as plastic and influenced by individual characteristics of the child as well as the environment that the child is a part of (Lerner, 2005). Lerner (2005) discusses two hypotheses of PYD, (1) the context must align with the individual needs, and (2) there are five positive outcomes that conceptualize PYD (i.e., 5C's). The 5C's include; competence, confidence, connection, character and caring. These notions have significantly influenced PYD

literature in sport psychology, as the role of sport is to provide youth athletes with experiences that support development (Fraser-Thomas, et al., 2005; Holt, et al., 2017). Fraser-Thomas and colleagues examined the role of organized sport in the PYD process: development was not automatic within this context but was rather dependent on multiple factors. Contextual (i.e., program design, competitive level, commitment and practice structure) and social (i.e., parental and coach influences) factors determined whether an individual's experience was positive or negative. Thus it is necessary to understand the optimal context and support surrounding youth in sport.

Larson (2011) brings attention to the varying domains that support youth development through six considerations. First that the subjectivity of experience must be recognized when assessing knowledge. Disorder in development must also be considered through analyzing variation in experience. It is also paramount to navigate integration and balance when developing individuals. Further, youth are active in their developmental process and should be considered an influential factor in and of themselves. On top of individual influences, multiple contexts can influence the developmental process. Finally stating that research would benefit from using an array of scientific methods to understand the details of development.

Learning

In examining what context of PYD contributes to a transfer of growth outside of sport, implicit and explicit learning were discussed (Turnnidge, Côté & Hancock, 2014). Implicit learning supported athletes learning and development, while explicit learning within sport did not transfer to growth outside of sport. The effectiveness of explicit learning was dependent on varying factors (i.e., leader and athlete personal characteristics), however Turnnidge and

colleagues (2014) suggest youth driven explicit learning to be an avenue of future research. Research shows support that effective leaders of youth sport actively attempt to positively influence athletes by being open to learning from new experiences and continuously developing their coaching practice (Camiré et al., 2011). However, the practical implications rarely discuss the intricacies of Lerner's first hypothesis. Although various domains of research state the importance of individual needs being recognized, while ways in which youth sport stakeholders can do so is not prioritized.

Developmental Differences

In order to support PYD for all children, researchers and practitioners need to consider developmental differences. As sport offers a cognitively, socially and physically challenging environment, development in all of these areas must be surveyed. Cognitive development constitutes evolving perceptions; ideas shift from reproducing concrete experiences in early childhood to constructing abstract thoughts in later childhood and adolescence (Horn, 2004). Further, self-perceptions form (Smith, Dorsch & Monsma, 2012) and individuals develop the capacity to differentiate between effort and ability (Weiss & Williams, 2004). Socially children desire peer acceptance, learn to be empathetic and use their social agents to form ability perceptions (Crocker et al., 2004). Physical development is witnessed through puberty and further influenced by maturation shifting ability and self competence to perform physically (Horn, 2004). In addition to the individual factors influencing development, environment plays a role in determining differences in youth. Dependent on the context of the youth sport experience, self-perceptions, motivation and moral development can differ (Weiss & Williams, 2004; Weiss, Smith & Stintz, 2008). For example, understanding how each individual athlete is influenced by

their cognitive, social and physical development can provide sport stakeholders with the knowledge to support their needs.

Social Support

Social support has been found to have a moderating effect on stress in many areas of research (Sargent & Terry, 2000; Hastings, 2003; Brunet, Love, Ramphal & Sabiston, 2014; McSpadden et al., 2016). In the realm of pedagogy, Flum and Kaplan (2012) believe it is critical for teachers to support children to find their own voices. Mirrored in sport literature, to develop successful athletes, coaches need to inspire and support athletes individual identities (Pierce, Gould & Camiré, 2017). It is also suggested that for teachers to be able to guide exploration (Flum & Kaplan, 2012), children should be given various experiences to build their sense of agency and face adversity (Larson, 2011). In order to build a supportive relationship with an individual, a caring environment and resources must be provided to them (Bergin & Bergin, 2009) while creating a culture that is accepting of emotions (Larson, 2011). These responsibilities, although evidenced in research, may not be explicitly stated in the practical coaching environment.

Coach-Athlete Relationship. The quality of the coach-athlete relationship contributes to many areas of development. The athlete's talent (Gould, Dieffenbach & Moffett, 2002), life skills transfer (Pierce, Gould & Camiré, 2017), personal development (Gould & Carson, 2010), emotional regulation (Larson, Walker & Pearce, 2005; Bean, Fortier, Post & Chima, 2014; Crocker, Tamminen & Bennett, 2017) as well as positive perceptions (Smoll & Smith, 2010. cf: Gould, 2016b) are all associated with caring relationships. However, these relationships are not created by the coach alone, both members are active in their contribution. As such, satisfaction

between a coach and athlete exists only when required, preferred and actual behaviours coincide between the two members (Chelladurai, 2007). Potential roadblocks include; an athlete's perception may be clouded by experiences of the past (Coan, 2010) and a coach's inability to understand the athlete may be problematic to their development (Miller et al., 2011). Pierce and colleagues (2017) share the explicit and implicit ways that coaches can facilitate athlete personal development; by discussing new skills with children, by providing clear instructions and opportunities to display their initiative, by giving children real responsibilities, and by promoting team building. By having cooperative learning experiences over competitive, children will learn to work together and support one another (MacPherson et al., 2017). Further, coaches can model positive behaviours and create positive social norms to build strong relationships with their athletes (Pierce et al., 2017).

Coach Effectiveness

The importance of being an effective coach has been studied profusely in sport psychology literature (Feltz, Chase, Moritz, & Sullivan, 1999; Horn, 2008; Côté & Gilbert, 2009; Gould, 2016b). A definition of effective coaching commonly used in research is that of Côté and Gilbert (2009). In this definition, contexts combined with coaches' knowledge to influence athlete outcomes contribute to effective coaching practices. Coach knowledge integrates intrapersonal, interpersonal and professional knowledge. Intrapersonal detailing reflective practice and self-awareness. With interpersonal concerning the ability to interact and build relationships, as well as professional relating to sport-specific or technical skills. Through effective coaching practice, the 4Cs (competence, confidence, character and connection; sport-specific variant of the 5Cs mentioned in PYD section) are the relevant athlete outcomes

discussed and support PYD (Lerner, 2005). Finally, Côté and Gilbert (2009) present varying contexts that influence when coaching behaviours are deemed effective. Mainly, participation vs. performance coaching can influence which knowledge is emphasized to reinforce targeted athlete outcomes.

Extending the definition of effective coaching, Horn (2008) has created a model centred around coaching behaviours. She presents the influences on effective behaviours as well as the effect coaching practice has on athletes through three central tenets. The first is that there are factors contributing to the choice of coach behaviour (i.e., sociocultural context, organizational climate and personal characteristics). Secondly, coach behaviour holds both a direct and indirect effect on athletes. This meaning that coaches do influence performance directly, however athlete perceptions moderate this effect. With the final tenet being that the situation along with athlete differences mediate choice of coaching behaviours. This notion reinforces that effective coaching cannot be seen as one single set of behaviours that is universal and appropriate for every time, place and person. All athletes and sport situations require a dynamic coaching practice.

When looking to engage in this complex process, Hall and colleagues (2016) suggest supporting coaches' intrapersonal knowledge of individual critical judgement, decision-making and reflective skills. Researchers may help to guide coach learning through dialogue, facilitating reflection on their experiences with phenomena rather than detailing de-contextualized and generic advice. As Becker (2009) addresses it is "not what they do, but how they do it". In reviewing athlete experiences and determinants of effective coaching, Becker found athletes discussed themes surrounding the process of coaching practice. Although non-exhaustive, themes

of a coach's ability to adapt, emotional stability, genuine care and respect as well as being "more than a coach" defined the athlete perspective of coach effectiveness.

Research is moving away from examining how a coach can influence their athletes and advancing towards how the two interact together (i.e., interdependence). As interdependence is inherent in interpersonal relationships, it shapes three key factors of the relationship; self, mental events, and interactions (Jowett, 2007). Therefore, coaches and athletes affect one another's perceptions through their thoughts, feelings and behaviours. It is through this theory that Jowett and Ntoumanis (2004) determined their 3+1Cs concept by operationalizing and measuring three constructs; closeness (feelings of trust and respect), commitment (thoughts of attachment and intent to maintain relationships), and complementarity (reciprocal behaviours and cooperative actions). These 3Cs are employed to appraise the thoughts, feelings and behaviours of both coach and athlete, and further how these perceptions affect the quality of the relationship. These 3Cs can be assessed through a direct perspective, metaperspective or combining the two. The direct perspective looks at one member's perceptions, whereas the metaperspective determines one member's perception of the other's perception (Jowett, 2007). Combining these two perspectives gives the additional C of this model, co-orientation, which holds three dimensions. First, assumed similarity, which displays if one member feels their perception is the same as the other member's. Additionally, actual similarity demonstrates if both members have similar perceptions. Lastly, empathic understanding indicates if one member's perception of the other's perception is accurate. Together, co-orientation reflects a quality relationship through both member's perceptions of clear communication and corresponding behaviours. Coaches would then benefit

from developing their interpersonal knowledge by learning to understand their athletes individually in order to act in correspondence to their needs.

Thus effective coaching in its simplest sense, relies on a coach's intrapersonal, interpersonal and professional knowledges (Côté & Gilbert, 2009). Youth sport research would benefit from determining the influence that coaches' emotional intelligence, ability to communicate as well as leadership behaviours would have on their coaching practice.

Emotional Intelligence

Demonstrating exemplary intrapersonal knowledge, emotional intelligence (EI) can be understood as the ability to recognize emotions within yourself or others, express those emotions upon comprehension, as well as regulate emotional responses (Perreault, Mask, Morgan, & Blanchard, 2014). Mayer and colleagues (2001) view EI as a cognitive ability; understanding meanings of emotions and the influence they hold on reasoning and problem solving. Comparatively EI has also been assessed as a trait, for example relating to behavioural tendencies to be empathetic, sociable, optimistic or assertive (Petrides, 2009). These two views can be differentiated through explicit and implicit use of EI. Explicitly using EI to alter mood and regulate conversation exemplify ability whereas those who are optimistic in themselves may hold a more trait-like EI. This concept is pertinent to human interactions as everyone experiences different emotions in different situations that may impact the others around them. Recognizing specific emotions would facilitate understanding of thoughts and feelings, provide more effective conflict management skills, as well as the ability to manage one's own or others' mental state. Overall global EI mediates the relationship between self-determination and well-being, specifically through "mood-regulation optimism" and social skills (Perreault et al., 2014).

Perceiving and understanding emotions can provide rationale to why one acts or behaves in certain ways, as emotions are impulsive reactions to stimuli.

EI has been shown to be effective in business settings, however elements of leadership in a work place can be easily translated to sport (Hwang, Feltz & Lee, 2013). Leaders that believed they were understanding of follower emotions perceived the climate they created as caring (Magyar et al., 2007). Specifically if a leader was attentive to emotions, motivating their followers would be easier. Being able to identify emotions would bring a coach's game to the next level. If a coach understood how they could regulate and become aware of emotions they would then have an increased belief in their ability to affect their athletes' development (Hwang et al., 2013). In addition to the feelings of athletes, coaches need to be aware of the current context in which an athlete is involved in. Through considering contextual influences along with the personal aims of athletes, a coach would be better able to motivate individuals (Thelwell et al., 2008).

Coaches would benefit from regulating their emotions since athletes' performance as well as emotions are directly impacted by the expressed emotions of their coaches (Crocker, Tamminen & Bennett, 2017). Watson and Kleinhart (2018) examined the personal characteristics of coaches that influence their understanding of athletes. For example, self-control may benefit coaches as this skill is influential to coaches acting consistent and developing trusting and caring relationships with their athletes. Moreover, Rosete and Ciarrochi (2005) found that the perception of emotions was a specifically salient skill that contributed to leadership. Through empathy and positively managing relationships, coaches that could accurately perceive emotions provided information to athletes according to their needs (Barling et al., 2000).

Developing EI would contribute to a coach's intrapersonal knowledge as well as influence their interpersonal relationships. Accurate emotional perceptions limits miscommunication within the dyad's interactions, thus enhancing a coach's ability to consider individual needs of athletes. The leader is able to create a caring climate by understanding the emotional needs of their followers (Fry et al., 2010) and building trust between the leader and follower. Further exploration of this construct in coaching literature have been suggested (Gould & Carson, 2010) as understanding emotions of others would allow coaches to read and respond appropriately to individual athletes. When acting with EI, those who have higher levels are seen as more socially competent, interpersonally sensitive and hold better quality relationships. Whereas those lower in EI can experience more interpersonal conflict, maladjustment and sometimes aggressive behaviours (Mayer, Salovey & Caruso, 2008). EI connects intrapersonal and interpersonal knowledge through communication.

Communication

Individuals who present strong EI would also possess stronger communication skills (Petrides, 2009) and promote stronger relationships (Jowett, 2014). Communication (i.e., interpersonal knowledge) is defined as a process that involves a message being encoded and decoded. Encoding occurs when one individual cognitively constructs a message, which is then sent to the receiver who decodes the meaning of the message (Weinberg & Gould, 2010). The purpose and type of communication changes with each individual and situation the sender is in. Communication can be intrapersonal, interpersonal, verbal or non-verbal, each with their own characteristics of application and effectiveness.

According to Martens (1987), there are three dimensions of the communication process in relation to coaching. First looking at the sending and receiving of a message, coaches need to effectively send information while listening to others and receiving their messages. Informative messages of a coach should be direct, complete, specific, clear, consistent and supportive (Weinberg & Gould, 2010). Therefore, coaches should hold greater communication skills in order to be effective. Furthermore, coaches need to use verbal and non-verbal communication (Martens, 1987). Being aware of how they are presenting information, non-verbal communication entails physical appearance, posture, gestures, body position, touching, voice characteristics as well as facial expressions (Weinberg & Gould, 2010). Coaches need to be able to regulate more than simply what they say. Finally, to be effective at communicating coaches need to consider content of and emotions associated within a message (Martens, 1987). Within these constraints, coaches are able to choose what message to send and when is appropriate to send it. Bloom and colleagues (1997) looked across contexts of coaching to examine what made effective communication. They found that context influenced communication of coaches as participation and performance coaches focused on varying aspects of communication. However, the consistency between groups was seen in the attempt to balance instruction and social support.

As adolescent's social development is attached to the evaluative feedback of adults (Kipp, 2017), a coach's ability to communicate may have detrimental implications to a child's future social competence. Athlete development transpires when communication is effective and encouraged by a coach (Gould et al., 2002). Athletes desire clear and concise communication from their leaders (Smith, Young, Figgins & Arthur, 2017). Communication would include not only the feedback that would be beneficial the athletes but having an understanding of how to

discuss critical issues with athletes. Messages that are tailored to the individual athlete are more influential to their development, which depends on the coach's ability to understand their athlete in the moment as well as assess the athlete's willingness to hear that message (Parcells & Coplon, 1995; cf. Gould, in press). On the other hand, miscommunication can initiate intrapersonal and interpersonal issues (Wachsmuth, Jowett & Harwood, 2017). Millar and colleagues (2011) discuss the connection between a coach's self-awareness as pivotal to their communication with athletes. Therefore, a coach's perception (i.e., understanding of self and others) can impact the behaviours (i.e., communication) used to facilitate a relationship with their athletes and further understand what they need as individuals.

Transformational Leadership

Transformational Leadership (TFL) is a theory of leadership formalized in an effort to "empower, inspire, and challenge followers to enable them to reach their full potential" (Turnnidge & Côté, 2018). Leadership can also be categorized as a professional knowledge that is required by coaches to be effective. TFL is divided into four functional elements (4I's); idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Avolio, Waldman and Yammarino (1991) clearly define each of the 4Is; idealized influence is the use of respect and trust to establish a shared vision that influences followers; inspirational motivation is the ability to hold a shared mission between followers continuously demonstrated by all; intellectual stimulation is being able to facilitate an efficient form of thinking and reasoning within followers; and IC is the awareness of individual needs along with the understanding of how to treat differing followers.

Originally studied in organizational psychology, TFL has been linked with follower well-being (Krishnan, 2012), motivation, morality, and empowerment development (Dvir, Eden, Avolio & Shamir, 2002). Translating to sport psychology research, TFL specifies behaviours of effective coaches that have been found to positively influence performance (Charbonneau, Barling & Kelloway, 2001). Although tangible examples are provided, it is the idea that there is a range of behaviours that fit into the 4Is dependent on the context and individual (Smith et al., 2017). Coaches that utilize all elements of TFL have shown to decrease alienation between leaders and followers, which would positively impact both coach and athletes (Arnold, et al., 2007). Research deliberates how TFL behaviours create situations where individuals felt taken care of (Magyar et al., 2007). Further presenting that followers may need TFL when work has more meaning along with outcomes that are uncertain. To foster relationships with followers, leaders can demonstrate trust through directing follower problem solving and providing opportunities for athletes to take initiative (Turnnidge & Côté, 2018). Moreover, being empathetic and compassionate to the needs of individuals influences building relationships (Jowett, 2017) and athlete development (Hoption, Phelan & Barling, 2014). Tepper and colleagues (2018) discuss those implementing TFL behaviours should consider in what contexts followers require these specific behaviours.

Individualized Consideration (IC). Individually considering athletes has a positive influence on their development (Turnnidge & Côté, 2018). If a coach is able to recognize how personal characteristics of their athletes may be impacting the current sport context, coaches would be better equipped to tailor their behaviours to the needs of individual athletes. Although considering every person individually is time-consuming and difficult, it is crucial for supporting

PYD (Lerner, 2005). Pedagogical research highlights the critical role this process plays, getting to know students personally can develop an understanding of: when to offer help to the student (Calkins & Dollar, 2014), what their emotional triggers are (Jacobs & Gross, 2014), as well as how they interpret the situations they are in (Quidbach, Mikolajczak & Gross, 2015). Through these considerations, each student can feel supported and develop. The salience of focusing on a child individually as well as contextually cannot be understated.

It is also important to consider that there are an innumerable amounts of possible developmental trajectories, as evidenced by the concept of multicausality (Smith & Thelen, 2003). Kipp (2018) has provided practical recommendations for varying age groups. Although context and individual factors play significant roles, these guidelines can help coaches to tailor their practice to their athletes' individual needs. Children between the ages of 5-10 learn through concrete cues and goals and reflect on previous experience to support their sport competence. Coaches should acknowledge individual ability when creating expectations of athletes and provide opportunities to participate, learn and have fun. Further, providing individualized feedback will support intrinsic motivation and enjoyment of young athletes. As late childhood occurs, 11-14 year olds begin to differentiate effort from ability. Social comparison provides information of their competence, thus developing peer relationships is important at this age. Puberty leads to increased perceptions of self for boys, yet the opposite for girls. Thus dropout is a risk for those individuals experiencing this context, coaches should encourage and help determine realistic goals for children's sport participation. Finally in adolescence, 14-18 year old athletes begin to feel pressure to perform. To alleviate external pressure, coaches can reinforce sportsmanship, emphasize learning and effort, support building friendships, encourage self

reflection and provide opportunities to develop life skills. Positive development transpires by supporting motivation, success and enjoyment within sport participants. Overall, in order for the practitioner to seem supportive and understand what the individual wants, expects from the experience and what makes something fun, they need to understand developmental as well as consider individual differences. Remembering that development is not a similarly structured path for each person, leaders should be flexible when catering to the varying needs of specific children (Bergin & Bergin, 2009).

Côté and Gilbert (2009) postulate that developing capacities by tailoring to individual athletes' needs in varying contexts defines an effective coach. IC is a tactic that can be used to support PYD through the application of leadership behaviours (Turnnidge & Côté, 2018) and interpersonal knowledge (Côté & Gilbert, 2009). Coaches that are flexible and remain open to changing their approach and behaviours leads to developing a positive relationship (Turnnidge & Côté, 2018). Quality interactions between coaches and athletes are reinforced through a coach responding to individual needs (Mueller, et al., 2018). Through exploring what information coaches perceive and how they acted based on the information, Mueller and colleagues found that when athletes reported coaches' accurate perceptions the quality of the relationship was stronger and supported performance. This study provides evidence to the importance of coaches accurately perceiving the needs and feeling states of their athletes, more research on how coaches are able to be effective in this process is warranted.

Coach Education

In sport today, there is a substantial amount of time and resources being put into coach education. Sport organization directories often list a director for coach education or a director for

coach development. In addition, organizations exist to develop training programs for coaches. “SHAPE America” (Society of Health and Physical Educators) have national standards that all sport coaches must abide by, which includes specific coach training. The “National Alliance for Youth Sports” have researched and found varying reasons that volunteer coaches should be trained (ie. empowering volunteers, building a quality volunteer base, creating positive experiences for young athletes). Yet, what coaches learn through these programs is seldom brought back to their own contexts, or even used successfully (Knowles, Borrie & Telfer, 2005). A study compiling information on coach development programs found that majority of programs surround professional knowledge for coaches (Lefebvre et al., 2016). Coach development programs focus on rules, regulations, sport technique, performance enhancement of athletes and planning for seasons. Limited programs surround interpersonal knowledge development, outside of leadership skills and team cohesion. While simply one program involved intrapersonal knowledge, specifically reflection.

Knowles, Gilbourne, Borrie and Nevill (2001) have found that coach development needs to be individualized for each coach based on his or her needs. As a result, looking to develop coaches as individuals is an important next step for coach development research. Effective coach education needs to connect coaches with their own experiences (Knowles et al., 2005); coaches will learn through reflection and understanding of their own impact on their practice. Furthering the notion of individualized coach education, Paquette and Trudel (2016) posit that a greater emphasis should be put on coaches as learners themselves. Therefore, an appropriate way of understanding coach development is by asking them to reflect on their experiences, strengths, weaknesses and desired resources to support their needs.

CHAPTER III

METHOD

The purpose of this study was to explore current youth sport coaches experience with IC. This study explored coaches' assessment of athletes' individual needs, and the information they use to assess these needs, in their coaching. Further, this study explored the influence of coaches' IC of athletes in their coaching practice. Coaches' individual differences (i.e., effective coaching knowledges) were surveyed to see if they influence coaches' use of IC with their athletes. The study design was informed by a mixed-methods research (MMR) approach with qualitative data holding priority. As the study was exploratory, qualitative methods allowed for an in-depth investigation into multiple experiences, while quantitative methods provided a description of individual characteristics of coaches. IC in coaching practice was explored through the integration process of this mixed-method design.

Procedure

Using a convergent parallel MMR design (see Appendix C), where qualitative data held priority (a QUAL-quant design, in MMR terminology), this study was comprised of two phases. Phase 1 included data collection and analysis, separated into two parts (a & b). Phase 1a included collecting qualitative data through semi-structured interviews and analysis by using a three-step coding procedure (see Data Analysis section). Phase 1b included collecting quantitative data through surveys to provide descriptive data on participants. Results from Phase 1 were discussed in Phase 2, where integration of the two methods occurred, which provided an in-depth

description of the experiences of the participants that supported the understanding of this phenomenon.

Prior to data collection for analysis, a pilot study was completed with 2 youth sport coaches to ensure comprehension of interview questions as well as readability of the questionnaire. In addition, each pilot coach participant was asked to reflect on the procedure and feasibility of their involvement given the purpose of the study.

Methodological Framework

Phenomenography

Phenomenographic research looks to understand the experiences of a phenomenon through description and analysis (Marton, 1981), the focus of this study mirrored this approach. The four conceptual foci of phenomography are reflected in the methods of this study. Phenomenography focuses on the variance of experience (Marton, 1981), considers how knowledge is shaped by experience and perception (Barnard, McCosker, & Gerber, 1999), views retrospection as an accepted practice of description (Richardson, 1999), as well as emphasizes a pragmatic conceptualizing of how (not just what) a phenomenon is (Marton, 1981). The purpose of this study was to understand the concept of IC (i.e. phenomenon) within the practice of youth sport coaches (i.e., experiences). Phenomenography informed this attempt to understand coach experience through learning from the description of active youth sport coaches prior to researcher analysis.

Viewing, not only the similarities between varying experiences, but the differences between individuals extends the understanding of a phenomenon as a whole. Thus, greater knowledge stems from collecting the differing perspectives of one concept (Barnard et al., 1999). Taking from this assumption, this study looked to multiple coaches as data sources. Multicausality (individuals in the dynamic environment of development may take differing paths to the same outcome; Smith & Thelen, 2003) was recognized in order to combine these diverse perspectives and paint a detailed picture of IC in effective coaching.

Further, this approach is characterized by diving into other's knowledge and learning process. As knowledge is relevant to experience and fluid with perception, it can differ between individuals. As the coach and process of IC are not independent of one another, descriptions change due to the prior experience of the coach. Additionally, phenomenography follows a non-dualistic ontology that argues objectivity and subjectivity together have their respective place in knowledge (Barnard et al., 1999). Thus, this study used a MMR design to explore this phenomenon including multiple coaches' perspectives. Balancing subjective description of coach experiences with objective measurement of personal characteristics provided an in-depth analysis of an individual's coaching knowledge within the context of this phenomenon.

Phenomenography holds that reflection on experience is an accurate avenue to understand a phenomenon (Richardson, 1999). This notion fits with the method of semi-structured interviews employed to explore the research questions of this study. Discussing with coaches who are closely involved in the experience while guiding their retrospection to provide a description of the phenomenon was an appropriate method for this study. Finally, being rooted in

pragmatism, this approach looks to understand how individuals learn (Marton, 1981). Paralleling the epistemological standpoint of this research, this study aimed to learn from the real-world. Reflecting on the learning experiences of active youth sport coaches and how they practice IC helped to inform future research. Research that uses practical experiences in order to examine a phenomenon rather than suggesting action based on theoretical knowledge is long overdue.

Supplementing the phenomenographic approach, this study was designed with a pragmatic philosophy. As the goal of pragmatic research is to examine problematic experiences of individuals and offer practical solutions (James, 1907), this viewpoint paralleled the purpose of this study. Guided by the concern of effective coaching practice, the research questions aimed to generate knowledge on appropriate coach behaviours. Further developments of pragmatic research identified a central characteristic of this framework: use of discussions that consider diverse perspectives of knowledge (Rorty, 1990). Thus using interviews as the main data source for this study was coherent to the methodology. Within sport psychology research, Giacobbi and colleagues (2005) posit pragmatism should be paired with a MMR design when exploring applied research questions. This study looked to extend this assumption by implementing a MMR design.

Research Method

Due to the strengths of MMR, many researchers in the field of sport psychology, specifically youth sport, advocate for its use (Bean, Fortier, Post & Chima, 2014). MMR draws interpretations and integrates quantitative and qualitative data in order to better understand research problems (Cresswell, 2015). Greene (2007) discusses the three critical features of

MMR: working toward a greater understanding, multiplism (using multiple sources of knowledge), and engaging with differences. Through the data collection and analysis procedure, MMR was employed. By diving into complex experiences, integrating diverse perspectives, and investigating contradictions in the data, this study used mixed methods to grasp the subjective experience of each individual participant. Specific rationale for this method was based on the work of Creswell (2015). As this study looked to capture knowledge from "two different perspectives" (i.e., interviews and surveys) and produce "a comprehensive view of a problem" (i.e., how coaches demonstrate or struggle with IC), using interviews allowed researchers to generate knowledge through exploring varying perspectives with individual experiences (Morgan, 2015) by embracing temporal and contextual differences (Giacobbi, et al., 2005). Additionally, this study looked to provide descriptive context to qualitative inquiry with survey data through understanding the personal characteristics of participants. Using a questionnaire allowed for an objective measure of differences between participants and groupings, where a further understanding of each individual participant was gained. Collecting both qualitative and quantitative data provided this study with a comprehensive description of the individual experiences of coaches within their practice.

Recruitment and Participants

Prior to recruitment, the institutional review board of Michigan State University approved this study. Initial recruitment involved contacting various minor hockey organizations and athletic directors in Ontario and Michigan to explain the purpose of this study and to ask if they would be willing to contact the coaches they employ to participate in this study. With organizational referral, coaches that responded positively to involvement were contacted about

their participation, explained the purpose of the study, what participant involvement entailed, as well as discussed a meeting time and place that would be convenient for the participant to complete the study. This study used snowball sampling, in that participants were asked if they knew other minor hockey coaches that would be interested in participating in the study. Further, connections within the community were used to connect potential minor hockey coach participants through organizations, athletes and parents.

The sample for this study was 10 active minor hockey coaches, all male between the ages of 26-51. Three coaches had over 20 years of experience coaching, one coach had 11-15 years, four participants had 6-10 years and two had 3-5 years of experience. The sample included six Ontario coaches along with four coaches from Michigan. Six coaches had experience coaching at the AA/AAA level and six had experience with the house league level in the atom, peewee, and bantam age groups. Eight participants had experience with a head coach position while five had experience with an assistant position. As the purpose of this study was to understand how coaches support their athletes through using IC in their practice, interviewing those that were currently interacting with youth athletes provided a look into the real world experience of coaches. The participants met three inclusion criteria: (1) at least 18 years old, (2) at least 3 years of coaching experience, and (3) coached boys between ages 9-13 years old in hockey.

An interdependent team sport (i.e., hockey) was chosen as coaches concurrently interact with multiple athletes providing a challenging context to assess individual needs, which may provide variation in coaching practices (Watson & Kleinert, 2018). One sport was chosen to control any contextual differences that may interfere with coaching practices. Due to the focus of

this study being IC of athletes, coaches were not restricted to participate based on competitive level but results examined this contextual factor.

In order to receive a controlled diversity of experiences, this study used purposeful sampling. Participants were deliberately recruited based on the age of athletes they currently coach (i.e., 9-13 year old athletes). This age group was selected based off suggested considerations of developmental differences in youth sport (Kipp, 2017). Specifically, coaching this age group requires a coach to consider physical maturation of individuals and provide equal development opportunities. As well as providing the team with opportunities to cooperate, it would benefit coaches to understand players on an individual level in order to facilitate cooperation within a team. Additionally, coaches of male athletes were recruited in order to provide a consistent experience. In terms of the coaches, participants were not restricted based on status of the coach (i.e., head, assistant or volunteer coach). All coaches will interact with their athletes, their contribution and understanding of IC is important for all to recognize and to collect a wide-range of coach perspectives.

Data Collection

Data was collected at a time and place of convenience for each individual participant. During the data collection procedure, rapport was built with each participant, the purpose and procedure of the study was explained and consent was received prior to commencing the qualitative data collection (Phase 1a).

Interview Protocol

In Phase 1a, qualitative data was collected via semi-structured interviews with each individual participant, taking approximately 45-60 minutes per interview. Interview questions

were set-up in four sections (A) role of a coach, (B) assessing athlete needs, (C) coach needs assessment, and (D) open to change. An interview guide was created with multiple questions within each section (see Appendix A). A brief representative overview is presented here:

- **A.** Role of a Coach: questions discussed the individual coach's perceptions of the role of a coach generally as well as specific to understanding individual athletes.
- **B.** Assessing Athlete Needs: questions surrounded the coach's perception of IC, the process they go through with their athletes, their communication and flexibility of their coaching practice.
- **C.** Coach Needs Assessment: questions shifted to focus on the needs of the coach by asking about what they perceive to be easy or difficult within assessing and interacting with athletes.
- **D.** Open to Change: questions in this section helped coaches to reflect on their own practice and if they would change their practice depending on the needs of individual athletes.

It should be noted that section (A) served to build rapport with the participant. The majority of the interview was spent discussing sections (B) and (C), while (D) was put in place to help the participants reflect on the information they have presented in their interview and think about what would enhance their practice. As this guide was designed for semi-structured interviews, probes were used during interviews for clarification and further exploration of coaches' responses.

Quantitative Questionnaire

Upon completion of the qualitative portion of this study, participants were asked if they would prefer to complete the quantitative portion through physical or digital copies (Phase 1b). Depending on preference and time availability, participants either completed the hard copy of the questionnaire following the interview or were emailed a link to an online version supported by Qualtrix. The questionnaire included general and coaching demographics along with measures of emotional intelligence, communication and transformational leadership (see Appendix B).

Demographics. The first section of the questionnaire provided a better understanding of the context of which the coach is involved with. Questions surrounded personal information (i.e., age, education level, having children of their own), prior coaching and athlete experience, characteristics of the team they coach (i.e., sport, gender, age, competitive level), as well as coach education.

Emotional Intelligence. The Trait Emotional Intelligence Questionnaire - Short Form (TEIQue-SF; Petrides, 2009) is a 30-item scale designed to measure global trait emotional intelligence. Based on the TEIQue (Petrides, 2009), the TEIQue-SF includes 2 items from each of the original 15 facets. Condensing the 15 facets into 4 subscales, the TEIQue-SF measures emotionality (8 items), self-control (6 items), well-being (6 items) and sociability (6 items). For example, the item "*I often find it difficult to adjust my life according to the circumstances*" was answered using a 7-point Likert-scale (1 - completely disagree to 7 - completely agree). Petrides (2009) reports satisfactory internal reliability while validity was reported across contexts (Mikolajczak et al., 2007; Freudenthaler et al., 2008). This instrument was included due to the

focus on trait over ability emotional intelligence in order to measure a more realistic behaviour of the coach (Watson & Keinert, 2018) as well as their intrapersonal knowledge.

Communication. This instrument was used to measure the interpersonal knowledge of participants. The Interpersonal Communication Competence Scale (ICCS; Rubin et al., 1993) consists of 10 factors; immediacy, expressiveness, empathy, altercentrism, supportiveness, social relaxation, environmental control, assertiveness, self-disclosure, and interaction management. Using a 5-point Likert-scale (1 - almost never to 5 - almost always), participants reported on 30-items. Internal consistency and reliability were reported acceptable (Haselwood et al., 2005). Hald, Baker and Ridder (2015) have more recently reported good internal consistency.

Transformational Leadership. The Differentiated Transformational Leadership Inventory for Youth Sport (DTLI-YS; Vella, Oades & Crowe, 2012), validated specifically for the context of youth sport, is suggested to be used as an applied research tool. This adapted questionnaire (see Callow et al. (2009) for full DTLI) holds 7 subscales; individualized consideration, inspirational motivation, intellectual stimulation, fostering acceptance of group goals and promoting team work, high performance expectations, appropriate role model, and contingency reward. This instrument was modified for this study, statements had minor word changes that reflected coach perspectives over athletes. Additionally, only the 4 items of the IC subscale statements were included in the questionnaire. Participants reported with a 5-point Likert-scale (1 - not at all to 5 - all of the time). Acceptable model fit and internal reliability have been reported (Vella et al., 2012) as well as internal consistency (Vella, Oades & Crowe, 2013) for use within youth sport.

Data Analysis

Phase 1a

Interviews were audio-recorded (with permission of participants); upon completion of the interview, audio reflection logs and notes were made by the researcher. Further, interviews were transcribed verbatim and re-read to become familiar with the data. Yates, Partridge and Bruce (2012) argued there is more than one way for phenomenographic data to be analyzed. However, Nalepa and colleagues (2018) provide a step-by-step process that this study based analysis on. The first step of the process was open-coding; which involved meaning unit creation, inductive analysis followed by constant comparison. Individual meaning units were created by coding transcripts line-by-line. These units were further understood through inductive analysis in order to create groupings. Finally, looking across groups ensured categorization of meaning units is representative of the respective groups (i.e., constant comparison; Patton, 2014). The next step was assembling raw data within categories, with the final step using inductive analysis to create levels from the categories. This process was used for each participant transcript to understand individual experiences of this phenomenon. Further, when looking at the collection of experiences between participants, differences and commonalities were looked at between categories and levels.

Phase 1b

Survey data was kept confidential in a secure database and unidentified data was uploaded to a software program for analysis (i.e., SPPS). Data was then cleaned up for further analysis. Scores of each instrument (and associated subscales) were calculated to provide description of the personal characteristics of coach participants. As this study prioritizes

qualitative inquiry, quantitative data was used to support exploratory aims through descriptive over inferential statistics.

Phase 2

A central tenet of MMR is integration; the combination of qualitative and quantitative data (Creswell, 2015). Merging of the data took place through creating idiographic profiles of each individual coach (see Results section). These profiles told a story of who these coaches are, what they perceive a coach's role is, how they have developed effective coaching practices and what they need to feel supported. These profiles displayed raw data generated from surveys (i.e., instrument scores) and interviews (i.e., quotes) to better describe each individual's experiences.

Methodological Rigour

Mixed-Methods Research

Steps were taken while designing the study to ensure quality MMR. Through the recommendations of Creswell (2015), sound research questions were created for MMR, how the study design reinforced these questions was reflected on as well as an MMR diagram of the study procedure was provided (see Appendix C). Integration of qualitative and quantitative data was assessed and placed in an appropriate phase (i.e. Phase 2) to support the purpose of this study. The mixed-methods design provided information on the purpose, priority and sequence (O'Cathain, Murphy, & Nicholl, 2008). To reinforce the purpose, the individual quantitative and qualitative methods chosen were appropriate and reliable (Creswell & Plano Clark, 2011). Throughout the data analysis and writing process, explanation of where and how the integration occurs provided justification for and limitations of the method chosen (O'Cathain et al., 2008) while using consistent MMR terms (Creswell & Plano Clark, 2011).

Positionality Statement

To minimize and account for potential researcher bias, a positionally statement was created based on the researcher's thoughts on this topic while acknowledging her views and assumptions that have come from her personal experiences. The researcher is a youth sport coach who has varying experiences with this concept as her experiences have sparked a desire to answer these research questions. The researcher believes her role as a coach is to build relationships and connect with athletes to support personal development through sport. For example, when coaching a middle school volleyball team the researcher realized the importance of social support through building relationships to create an optimal team culture. Therefore, interpersonal knowledge is valued higher than professional within her practice. With that, interpersonal knowledge highlights that athletes have individual needs which the researcher attempts to support through her coaching practice. Providing anecdotal evidence to the importance of changing practice to athletes' needs was her experience providing individual technical instruction when coaching a T-ball team. Although IC required more effort, the researcher felt that coaches that value flexibility, communication or emotional intelligence would be better able to judge athletes' needs. Finally, she believed that coaches would discuss professional knowledge to be easily understood over intrapersonal or interpersonal knowledge within their practices. Further she views resources for sport specific skills being provided for coach development, whereas resources for reflection on self-behaviour or building relationships with others are not often provided to coaches. Therefore, the researcher felt that coaches of youth sport, specifically minor hockey, were likely to facilitate performance more than support personal development.

Trustworthiness

Through conducting a pilot study with two youth sport coaches, the interview guide was assessed for appropriate wording as well as understanding of content. Minor word changes were made to the interview guide. Additionally, pilot study participants assessed the quantitative survey for length and feelings of fatigue.

Upon completion of each interview in the data collection phase, the researcher completed a voice memo with her initial thoughts and reflections. Further, the researcher made notes on each interview based on the progression of the guide as well as content participants provided. During the data analysis phase, the researcher kept a logbook to make notes and ask questions about the procedure as well as classification of codes. This audit trail allowed for the researcher to ask a critical friend was advice and perspective on decisions based on the coding process.

Reflexivity

The interview guide was reviewed for questions that would create a power imbalance (Smith & McGannon, 2018) or promote any bias of the researcher. In an attempt to ensure the researcher's position was not interfering with the results of this study, a bracketing interview was completed prior to data collection and referred to during the analysis process. The researcher was interviewed by a critical friend (a colleague in the graduate program) using the interview guide to draw out her assumptions and discuss expectations of the results. A bracketing interview was used to ensure the phenomenon speaks for itself by suspending or "bracketing" the researcher's assumptions (Rolls & Relf, 2006). This procedure helped the researcher understand that her experience may interfere with the study, especially since the researcher is an integral part of the data collection procedure (i.e., interviewer of participants). Additionally, the bracketing interview

informed data collection by ensuring the researcher is aware of responses that confirm her assumptions. To produce quality research, the researcher made notes after each interview during Phase 1a. Throughout analyzing the data, the researcher kept a log book to reflect on decisions being made and conferred with a critical friend (Smith & McGannon, 2018) to ensure rigour.

Although certain elements of this study were informed by universal criteria, this study looked to expand on the notion of quality in research. Based on the suggestions of Smith and McGannon (2018), quality was ensured through two features characteristic to this individual study; (1) learning from real world experience and (2) practice guiding future research. This conviction also supported the validity of pragmatic research (Dewey, 1931): assessing the practical implications of this theory in specific contexts. When evaluating the quality of this study, the presence of these features should be considered.

CHAPTER IV

RESULTS

The phenomenographic approach to research looks to find accounts of individual's experiences within a context (Marton, 1986). Idiographic profiles were compiled to represent a description of the individual experiences of each participant. Further with the mixed-methods research design, integration of qualitative and quantitative data has also been shown through these idiographic profiles. Integration during data analysis and presenting results allowed for a deeper level of understanding personal characteristics that may have influenced the experiences of participants. Through analyzing qualitative data of each participant, meaning units and subsequent groupings were inductively created. When compiling qualitative data from all participants, thematic levels and categories evolved. Results are presented through the individual participant idiographic profiles followed by descriptions of thematic levels and categories.

Participant Idiographic Profiles

Participant 1: Nick

"To continue my involvement in sport and to influence young people in a positive way" was the rationale for Nick to become a coach. Nick has been coaching as a head and assistant coach for over 20 years and is currently the director of two sport development schools. He has studied both kinesiology and pedagogy, played hockey at a competitive level, and has his own children involved in youth hockey. The majority of his coaching experience comes from the AA/ AAA level in an extremely competitive youth hockey league in urban Ontario.

Nick discussed striving for excellence and having a growth mindset as valuable and integral aspects of his coaching philosophy. *"You have to accept the facts that you make*

mistakes, you have to accept the fact your players make mistakes, you have to accept the fact the officials make mistakes, and you have to accept the fact your parents make mistakes. And you just need to be a good person and try to be better next time. You have to or it's gonna eat you alive." He believes his skills include relating to his athletes and preparation, whether preparing for the season, objectives in practice or communicating with others. However, Nick admits that *"keeping up with creativity"* is a challenge in his coaching practice. He has learned through his coaching experience and grown by pursuing personal development. Nick actively uses self-reflection as a tool and discussed the importance of continuing to develop emotional control as a coach as well as with his athletes (scored 5.5/7 on emotionality sub scale; scored 4.3/7 on self control sub scale of TEIQue-SF).

The focus of Nick's coaching practice revolves around behaviour management. Through preparing a progressive disciplinary structure, Nick proactively sets and communicates clear and manageable expectations for his athletes (scored 4.27/5 on ICCS). His process of setting realistic expectations of his athletes includes gathering information (i.e., observing and getting to know individual athletes) and understanding the emotional, developmental and environmental factors influencing the athlete (scored 4.75/5 on IC sub scale of DTLI-YS). By being a role model of his expectations, Nick opts to use communication as the initial stage of his discipline structure. Nick discussed varying situations and interactions he has had with his athletes and concluded, *"as long as you frame it {the message} the right way and you draw on their {athletes} experiences, you bring them back to why they're there and what they're doing, then they can put themselves in a pretty good frame of mind."*

As Nick's coaching is focused on behaviour management, he feels challenged by the influence parents have on their children's behaviour. Further, the perception of parents and their unrealistic expectations of Nick in his role as their child's coach make it difficult to focus on the process of development instead of the outcome of the game. Nick, having studied pedagogy, believes that others in the field of coaching may be limited in their knowledge and unaware of the positive influence understanding child development would have on their coaching. *"They have a coaching background but not an education background. So what happens is, dealing with adolescents or children is not just hammering concepts down their throat. In fact, that's the last priority."*

When learning to be a more effective coach, Nick did not cite mandatory coach education as helpful. Instead he suggested strategies for minor hockey to employ in order to ensure quality coaches are being supported in their attempts to positively contribute to the hockey culture. *"... there should be a regulatory body that manages all of us and that way we could get more respect. We should have a college to attach ourselves to. And we should be paid through organizations, not through individual budgets and through individuals. There needs to be a watch-dog for this stuff because then we'll gain more respect because it doesn't seem so underhanded and greasy and nepotism starts to be managed better."* Nick is looking for the hockey organization he is a part of to focus on behaviour management in the same way that he supports his athletes' development. Further, pressured by unrealistic expectations of his role, Nick seems to be looking for a top-down approach to change the culture of minor hockey.

Participant 2: Vince

Vince described his role as a coach "*is to try and help the kids that are on my team actually get better and understand the game. Also, part of that is you help them become better people."* Vince had the opportunity to play hockey at a semi-professional level, received his bachelor's degree and is now a manager of a construction business. He has been coaching for just under 10 years, briefly at a university as well as at a development camp but has settled into coaching his own children at the house league level in urban Ontario.

Through his extensive experience in hockey and his professional career, Vince feels he is able to employ his technical knowledge and interpersonal skills to be an effective coach. *"I coached after in university… and the guy I coached with went on to be a professional coach. I kinda had a little bit of a step-up on a lot of people, how to learn, how to become a coach."* Yet he finds it difficult to use discipline and hold power over his athletes (scored 3.36/5 on ICCS; scored 4/7 on sociability sub scale of TEIQue-SF). However, learning through the experience of being a father has provided Vince with a new lens on his role as a motivator and coach.

Development, both technical and personal, is central to Vince's coaching philosophy and is supported through providing athletes with equal opportunities and intrinsic motivation. He discussed varying strategies of IC that he uses when helping athletes develop (scored 4.75/5 on IC sub scale of DTLI-YS). Through observation and getting to know athletes, Vince is able to understand their expectations, interactions, autonomy, self-regulation, and even the external factors - such as parents, that are influencing the individual athlete. His empathy is apparent as he helps athletes by being flexible when relating to them and adapting to their skills (scored 4.5/7 on emotionality sub scale of TEIQue-SF).*"I think that's {IC} one of the biggest things with*

coaching… is figuring out, how do you talk to them? Who do you push? Who don't you push? Who do you have to give heck to? Who don't you give heck to? Because one kid you might give heck to, speak up to and he'll understand. Another kid might start to cry. And, that's okay." Although Vince is aware that different children require different coaching practices, he is challenged with finding an optimal push.

Additionally, he discussed being faced with non-committed parents or contrarily parents that are adding anxiety and pressure to the team environment. Vince not only sees challenges within his team but also within other teams and their coaches. *"She {another coach} wanted to put together this house league team that was gonna win the mythical Stanley Cup at atom or whatever it was. And I remember the straw that broke the camel's back was, we were like two or three games in and she said - let's change up the lines, let's get a power line, let's sit these kids. And I'm like - uhh, no like you don't do that."* With a competent understanding of hockey, Vince finds himself in a culture that is ill-supporting of playing for the love of the game and does not provide all children with the opportunity to play.

Vince feels that the incompetence seen at the coaching level is mirrored by that of the organization and stems from the arbitrary coach education and certification procedure *"In the eyes of the association, oh in the case now he's {coach} not a 1 he's a 2 so we can give this level of team. But, to me it was like, somebody like you {interviewer}, you go to school, you take an interest in it, you learn. That's what I did, like the same way you do. I worked with a guy, I learned, I always tried to get better. And then people just all of a sudden get levels 1, 2 and 3 and run around. To me it doesn't make sense."* Even at the recreational level in which Vince coaches, there is a fixed mindset where the outcome of the game rules over the experience of the child.

"At the end the problem is the kids who are not as good, maybe they have learning disabilities, maybe they have behavioural problems or whatever, and they never get taught how to skate, how to shoot and they never get better. So the kids who are the elite kids, get the best coaches, the most ice, the best training facilities and they always excel. And everyone says - well they were always good. But there's never a chance for that kid that maybe just needed a little time." Due to feeling frustrated with the structure of the organization, Vince does not plan on continuing to coach and minor hockey will lose a qualified and considerate coach.

Participant 3: Don

Don is a middle school teacher that has been coaching hockey for over 20 years, starting alongside his father when he was 10 years old. *"I've always been, just really enjoyed the, that part of it or enjoyed the coaching, enjoyed the figuring out what to do, how to make them better, what makes them tick and so on."* Through various coaching experiences, Don has enjoyed coaching at the house league level and will continue coaching in urban Ontario.

Don believes his role of a coach is to value more than winning while building relationships with athletes in order to support their development. He learned through trial and error, making some mistakes during his coaching career, yet has become an efficient and emotionally aware coach (scored 5.37/7 on emotionality sub scale of TEIQue-SF). However, he feels that IC is too much to be asked of *"You're supposed to and it's a load of crap. You can't do it. You've got 30 kids and you're telling me I'm going to speak individually, it's not going to happen. Yeah. Yet the people up on the ivory towers, they don't actually teach, tell you this is what you're supposed to do. And I find that really frustrating because you can't do it. It's impossible."*

Although disbelieving in the practicality of IC, Don discussed examples of tailoring to individual needs of athletes through acknowledging developmental differences and external influences on motivation (scored 4.25/5 on IC subscale of DTLI-YS). *"I think you have to try to figure out again which one, which works for each kid, what makes them tick and what makes them want to work, put that extra effort in."* Having an understanding of pedagogical concepts, Don is able to create different objectives and tailor drills to individuals - or at some times group needs. He also stresses the importance of communication, noting what, how, and when to communicate with athletes. Even through all of his experience, Don is still faced with the challenge of finding an optimal push, ensuring his practices are developmentally appropriate and getting through the *"mental block"* some children have when learning.

As Don expressed parent communication was not a challenge, he noted that how appreciative or helpful parents were could change the team environment. The challenging aspect of parents was when they were not committed, open to discussion, lying or unable to understand fair playing time. *"If you play your best players, then the weaker parents are pissed off at you. If you play everybody then the best players are, they're mad at you…"* Additionally, Don felt that they posed a distraction to the team and takes steps to communicate with parents about their behaviour.

Considerate of developmental differences in his adolescent athletes, Don feels that the resources provided by the organization (i.e., ice pads, coach education) does not appropriately support development. Therefore being faced with this challenge in his own practice, Don feels that coach education is unhelpful for his personal growth. *"I'm sort of torn on these coaches courses. I think, I'm not sure they're really as good as they could be. And I think that a lot of it's a*

cash grab by the Hockey Canada to get money. And I think it's ridiculous." Instead, Don feels that experience and making mistakes are integral aspects of coach development.

Participant 4: Norm

"I coach so that kids can have the same enjoyment that I have received from the game through the years; because I'd like to give back to a game that has given me so much; because hockey teaches lessons and creates friendships that kids will carry for the rest of their lives; to prepare players for the next level; because it is a rewarding venture." Norm has been coaching for over 10 years from the B level all the way to AAA. Having played at a highly competitive level, Norm remains involved in the sport of hockey through coaching and being a rink administrator in urban Michigan.

Norm believes his role as a coach is to model responsibility, be available to athletes and provide a fun and disciplined environment for development. Armed with a growth mindset, Norm is adaptable and able to problem solve. During his experience as a player and observing his own coaches, Norm developed a catalogue of behaviour patterns. *"It kinda catalogues in the back of your - my mind anyways, where I can kinda see that moving force. Okay, this is this player that I'm coaching here reminds me of this kid that I grew up with. And if the coach yelled at him, he would sit there and he would be kinda pouty about it… But, if the kid or the coach gave him that positive praise, then he would run through a wall for him for instance. Just little things like that, that kind of stick in the back of my mind and it kinda moves forward and yeah, I definitely draw a lot of that type of experience from when I was playing."* Although he understands the importance of observing athlete behaviour, acting in the appropriate manner was difficult for Norm. Faced with a challenge of building rapport with athletes to better understand

them, Norm discussed his active approach to act outside of his comfort zone and develop his interpersonal skills.

With that, Norm sees building rapport as an initial step when coaching. *"Yes, dealing with a player on that individual basis… I mean I think dealing with kids and finding out, just being relatable to them and knowing and building that relationship with that kid where they understand that you know, they're comfortable around you and they know that you have their best interest in mind."* Norm understands how to communicate (scored 4.17/7 on sociability subscale of TEIQue-SF) and that by tailoring messages to the context and individual, athletes will trust that their coach has recognized their needs. Norm gathers information by observing athletes and getting to understand their point of view (scored 5/7 on the TEIQue-SF) before he assesses their strengths, motivations or emotional responses. In considering the individual athlete, Norm is then able to make informed decisions on appropriate development and disciplinary steps (scored 4.75/5 on IC sub scale of DTLI-YS).

External factors also influence the individual athlete's experience of hockey. Norm discussed struggling with handling parental pressure and the home life of athletes. Concluding that some athletes *"don't seem to need the help"* which adds a challenge for Norm to connect with those athletes. Additionally, Norm noted that the behaviour of the coach can influence athletes' mood and performance *"If you are screaming at a referee the whole time, all of a sudden the kids start to pick up on that and they become a little bit wired to, not necessarily act undisciplined but they become a little bit more frustrated if they see their coach is frustrated, even though they know it's not on them."*

Being understanding of individuals, Norm discussed the biggest challenge he faces is providing everyone with the opportunity to play. *"As far as you know, the most difficult thing is for me is just if I could get every kid out here, do this for free and I absolutely would. I just know at the same time, hockey's not cheap so… It's those little in between things that are more, are the most difficult things for me. The human aspect of it where you feel bad you can't do much with it and you're kinda stuck between a rock and a hard place. You just gotta make the best decision for the collective group as a whole and then I don't want to say you hope is right, cause if you're just hoping I don't think you made the correct decision. But you want it to work out."* Although Norm is not challenged by the technical or sport-specific aspects of hockey, he consistently attends conferences to support his coaching practice. Norm finds coach education to be informative but believes that the information provided could be more explicitly applicable for coaches and is looking forward to learning more about sport psychology and developmental differences of adolescents.

Participant 5: John

"Watching the kids overcome adversity, on and off the ice. Watching lifetime friendships evolve. Seeing the kids hit milestones, like getting their first goals, learning that teamwork is more effective than solo efforts, and watching the groups become cohesive over the seasons. I get to celebrate their successes and in a way, relive my own through them." John has been coaching in the house league level in urban Michigan for almost 5 years. His playing career was cut short because of a knee injury. After receiving an MBA and working in IT sales, coaching has reconnected John with hockey.

John is highly motivated to coach and his genuine demeanour, patience and ability to be empathetic (scored 6.1/7 on emotionality sub scale of TEIQue-SF) allows him to build relationships with athletes. He believes his role of a coach is to steer athletes as they learn on their own by providing them with a fun and safe environment that supports peer relationships. *"If they're not having fun, if they're not comfortable, if they feel like at any moment I can just drop the hammer. They're never gonna get the full entertainment of it. They're not gonna grow. Like, they're gonna spend all their time keeping their head down and trying not to get it shot off."* John discussed coaching philosophies that rely on authority and punishment can thwart motivation and are unproductive when developing athletes.

John believes that peer relationships influence motivation to play hockey and he attempts to support this through using free play to develop skills over structured practices. In keeping the team on an even playing field, John recognizes that individual team members have different backgrounds and he tailors his approach to support differing developmental pathways (scored 4.75/5 on IC sub scale of DTLI-YS). By being empathetic and understanding of his athletes' cognitive and emotional differences, John provides individualized feedback when coaching. *"I'll just randomly catch a kid that came out of the play like that is coasting along, the pucks not near them enough. I'll say - hey, you did that thing, do this other thing. You know? And it started off like that, and that's how I always try to... because in real time they can go - okay, so that's what I did. If I stop everybody and say hey, if you're doing a thing and blah, blah... It's not going to relate to anybody. The only kid it's going to resonate with is gonna be the one that thinks they're in trouble because I just told everybody about what they did wrong."* His communication style changes with situations and individuals but is consistent when setting expectations and providing

a rationale for his objectives. However, John noted that directing athletes is a tricky balance (scored 3.8/7 on sociability sub scale of TEIQue-SF) and is challenged to not be overly critical.

With his unconventional style of organizing practices, John noted that winning over parents is difficult. Although believing that hockey parents are a spirited and enthusiastic bunch, he is still wary of their perspectives of his actions and pressures put on their children. Stemming from his playing career, John has no tolerance for *"dirty hockey"* which is something he battles with from both opposing teams as well as referees. He is clear with communicating his expectations of his own team and their response on the ice. John is also wary of the modern style of coaching, *"I'm worried they're {USA Hockey} losing some of the old ways of learning the game because they're too worried about the price of ice time and the amount of time kids stay still on it. Which, I think that's the biggest motivator for all these small game things. And it's good to some degree, but at the same time, some of them {athletes} just don't understand the game yet."* Following the model of coaching and losing the resource of a full-ice practice seem to be constraining John's ability to coach.

Limited to the basic mandatory coach education sessions, John described his experience with coach education as *"stuff hockey players already know."* Outside of being thankful to the regional hockey club for providing creative drills, John did not feel coach education was relevant to his needs. When asked about what information he would want to know more about, John stated *"Limiting focus to 'age specific' training is helpful, but putting a stronger emphasis on the age group being coached would be helpful. Knowing the skills or mindset the kids are coming into the season with would fast track the growth and development process (tailoring each players*

game).” John is looking for more education on concepts such as: child development, teaching, and tailoring his own coaching practice to the needs of his athletes.

Participant 6: Connor

“Helping kids get from one point to another - challenging them, watching them do something that they thought they couldn't do, coming together as a team, believing in themselves and each other… The wins and losses fade, the impact you have on kids lasts a whole life if done right in my experience.” Connor grew up playing hockey with a father that was a professional coach and has been coaching minor hockey for over 20 years in urban Michigan. His experience ranges from house to AA as both a head and assistant coach. Connor is an athletic director and feels privileged to be a parent coach for his sons.

Being a competitive player, learning from his father, and having an overly authoritarian coach has prepared Connor to have an effective coaching practice. He attempts to create an accepting environment for his athletes by valuing effort, positivity and autonomy. Connor supports development by focusing on the process over outcomes, *“I think for me as well, it was a change of mindset of the whole growth and development. Almost begin with the end in mind. We're gonna begin with the end in mind and where do I want the kids to be at the end of the year under my tutelage as a coach. Now how am I gonna get there? Start here but how am I gonna get there? I think that starts with for me a lot of planning.”* Bringing his knowledge of pedagogy into coaching, Connor starts with fundamentals and builds throughout the season.

Through being caring, providing fun and routine, Connor is able to reach his athletes (scored 5.3/7 on sociability sub scale of TEIQue-SF). He believes that team culture is created through setting clear expectations along with sharing leadership and recognition between team

members. When setting expectations, Connor considers individual needs by getting to know each athlete, *"I think it again it goes back in my mind to knowing your kids. How do you know your kids? Do they know that you care about them? Do they know that it's important that they're not just another team member that just comes and goes and nobody acknowledges them, that they were there today. That's the other thing."* He assesses concepts such as their strengths and weaknesses, technical ability, perfectionistic tendencies, and maturity (scored 4.75/5 on IC sub scale of DTLI-YS). Connor also uses effective communication strategies when connecting with athletes and in open discussion by being proactive, honest, and positive.

The culture of hockey is normalizing negative messaging, *"hockey culture has a language, always part of that culture… I counter that it shows me that you're not a very good coach because you can reach kids in a lot of different ways than swearing at them. And that I think that's part personality, that's part culture, that's part experience-- people coaching how they were coached, I think it's part the belief that in their minds they're doing something right-- I'm showing passion, I'm showing that I care, the kids are gonna see how much I care by dropping some f-bombs here. And when in reality, I think that ultimately turns kids off from you."* Connor feels that uneducated coaches that are commonly resorting to inappropriate behaviours are creating a hockey culture that is disrespectful. Unaware of the impact they have on their athletes, he believes that coaches can have a negative effect on their athletes in terms of developing bad habits stemming from the permissive environment of minor hockey.

Being an effective coach encompasses more than showing results, Connor feels that it is difficult to handle all the roles that a coach must play and that coaches do not receive help but are in need when handling this responsibility. Connor noted that coach education has changed from

the past which has created issues in having effective coach education programs. *"I think for me it's the dynamic of coaching has changed in my mind in terms of the coach educator model that exists, at least in American society, where you went to school to become a coach and a teacher. And when you taught, hey I also want to coach this sport, and that long-term model has existed for many years. That's changed dramatically because now you have non-educators more so in roles, at schools that never happened before."* Connor concluded by stating that programs should be concise, accessible, applicable and run by enthusiastic individuals.

Participant 7: Matt

Matt feels that to be a coach, his role is to be *"a guide or a mentor to the young athletes, kind of changes through time, but in general, be somebody that they can trust, have a fun safe environment, and teach them skills they need to develop as an athlete and as a team player and as an individual."* Matt has a graduate degree in engineering and coaches his son in various sports. He did not play hockey but instead has just under 10 years of coaching experience as an assistant coach at the house league level in urban Michigan.

Matt cited Dale Carnegie's business performance concepts and Stephen Covey's *"7 Habits of Highly Effective People"* as contributing to his ability to be self-aware, listen and control emotions (scored 5/7 on self control sub scale of TEIQue-SF). Further, he is challenged by managing his expectations of others and handling inappropriate behaviour of his athletes. When coaching, Matt focuses on what is controllable. *"I focus on ACE; attitude, concentration and effort. If you {athlete} can't do the skill, that's okay. That's why we're here, to help you learn how to do that skill. But give me a good attitude, concentrate on what you're doing and work at*

it. And we'll get there." He is clear in defining what success along with the process of obtaining success looks like for his athletes.

In attempting to handle behaviour management within his team, Matt proactively removes potential conflicts, stimulates reflection with athletes, and sets clear expectations. He sets expectations for individual athletes based on his observations, personal factors (i.e., concentration, drive, goals, etc.), and contextual influences on each athlete (i.e., group, age, situation). Through IC (scored 5/5 on IC sub scale of DTLI-YS), Matt is able to motivate, teach, and get his athletes to identify with their goals and abilities. Messaging is a critical aspect of coaching for Matt. He remains consistent in how he communicates by being sincere, specific, and open. However, what the message contains and the avenue to which it is being told differs between context and individual. *"If what you're doing doesn't work, we only have what we have in our understanding tool box and you try something new in the toolbox and I try not to give up. But usually, if after two or three times you're not getting through on the message then I'm gonna try and find another way to communicate the message, or give another message and try to attack it another way."*

Some of the challenges Matt faces when coaching include managing different expectations of players, coaching staff philosophies, and parents (scored 3.8/7 on sociability sub scale of TEIQue-SF). Developing hockey sense with athletes, managing their behaviour, handling distractions and disciplinary procedures were also discussed as difficult.

With the focus that Matt puts into tailoring messages for his athletes (scored 3.68/5 on ICCS), he believes that the most effective coach education programs need to have consistent messaging for coaches to connect with. Matt noted the effective programming and resources his

regional hockey club provides for him and concluded with what other information he would need to become a more effective coach. *"The developmental, where they are in the developmental progress… to understand about recovery time, with age, their peak development years on skills and how to take advantage of that, as well as when they can really learn bigger things and not just the skill. And understand that changes with time."* Matt discussed that he would enjoy learning more about communication, cognitive understanding of athletes, and implementing annual player development plans.

Participant 8: Colin

"Two big things, a big vision of the team and the culture and developing people, not just athletes. And then secondly, the more technical parts of what are you actually doing on the ice and practice and games and being able to apply that and have progression throughout the season." Prior to coaching, Colin played hockey at a semi-professional level and now has almost 10 years of coaching experience. He received a graduate degree in kinesiology, specifically sport psychology and has been mentored through his coaching experience. Colin currently coaches at the AAA level in urban Ontario, however does not plan on continuing.

Colin believes that his role as a coach is to guide the development of individuals along with their skills while creating a supportive team climate. *"One of the biggest things is intrinsic motivation and their basic psychological needs of being a part of the team. Developing skills and seeing progress on, for the perception of competence as well as autonomy, and having a voice and a say on being acknowledged as a person."* He uses autonomy-supportive coaching practices and will model appropriate and expected behaviour. Colin shows his emotional intelligence (scored 5.4/7 on TEIQue-SF) through understanding the basic needs of individuals

and being empathetic to athletes' experiences in order to create a supportive environment. He is working to improve on his ability to discipline, be organized and develop skills.

Being an autonomy-supportive coach, Colin discussed various IC strategies (scored 4.75/5 on DTLI-YS) he uses. *"Because to get the most out of the team, we have to get the most out of each individual. So it's finding ways to do that."* He takes time to assess athletes and consider differences before making decisions concerning athletes or tailoring messages for individuals. Through his encouraging and diplomatic communication style, Colin builds a positive team climate. *"Reinforcing that it's their team and I'm the coach there to guide them and facilitate versus it being my team and they're my players. I often ask them who's team is it and they say - ours. I tried to do and reinforce that even just verbally, through our little chants, and as reminders for them to take ownership of the team and ask them - hey, this is your team, you tell me what you want to do."*

With his education and hockey experience, Colin is a confident coach (scored 5.2/7 on well-being sub scale of TEIQue-SF). However, he discussed being faced with challenges from the parents and culture of minor hockey. *"I find most kids are good kids, but yeah, you got crazy parents, they're going to have a crazy kid. In general, not always, but there's a lot of red flag parents and I've had to avoid certain kids just because of parents."* Colin noted that difficult parents would impact his ability to coach, connect with athletes, and the environment he works hard to create. He also believes that minor hockey is permissive of inappropriate behaviours of both parents and coaches. Although seen as a common practice in hockey, Colin works hard to avoid punishment through withholding ice time.

Further, Colin described his perception of the structure of minor hockey as *"broken"*. He feels that development is not supported, trajectories of individual athletes are not supported, and that primarily competitive outcomes are being supported. *"I have a lot of problems with the sport's structure. It weighs heavily on a coach and then I've become too focused on winning because of the sport's structure. When I inherently know and constantly talk about, I don't really care about winning, I'd rather them be having fun and getting better is clearly more important and winning is just the result. If you're constantly focused on winning at like 10 years old or 12 years old and it doesn't really, and actually I find it hurts me as a coach. I wish there wasn't playoffs… we can have tournaments and competitions and games, keep scores, but when you're constantly focused on standings… there's influence on the coach's behaviour and decisions, tone, how we coach, on the patience level we have."* This culture has morphed how Colin sees his role as a coach and influences his behaviours. He expressed that he believes making the environment fun again and implementing technical directors would improve the sport structure.

Participant 9: Bob

"To ensure that everyone's enjoying their time as much as they possibly can and everyone's having fun. And everyone's learning more so than anything. It's not so much about the scoreboard or anything like that, it's about getting better each and every time you step on the ice. I think that's a huge part that's often overlooked a little bit." Bob is a coach building on his resume with just under 5 years of experience, he is looking forward to continuing coaching in rural Ontario. He hopes to instill passion for the game, not just looking to win with his A level teams.

Bob sees his role as a coach in three different levels: individual athletes, team climate, and within a coaching staff unit. He discusses development as central to his coaching philosophy through both technical aspects and life skills. *"I'm a more one-on-one kind of guy. I like to sit down with one line pairing or even one player at a time… I like to kind of tailor my approach definitely to each kid because, yeah you can talk in the whole room, but some of them are staring at the ceiling, half of them are asleep, like it doesn't always work that way. So, I find the one-on-one approach is much better."* Bob attempts to create a culture that is fun and supportive of building relationships between coaches and athletes as well as within athletes. Further, he thinks maintaining a consistent coaching staff philosophy contributes to the culture of a team. *"As a head coach I kind of find that it's sort of... I don't know, it's hard to be their {athletes} friend all the time because there's also discipline that has to happen and stuff like that. You try to, but you also kind of want to have your assistant coaches play that role."* He believes roles shift between head and assistant coaches, which is key to balancing skill development with building relationships.

Keeping in line with his one-on-one approach, Bob takes time to assess individual athletes (scored 4.75/5 on IC sub scale of DTLI-YS). He considers their cognitive functioning, emotional responses, concentration and what the best mode of teaching each individual is prior to acting. He individualizes his approach by setting goals, tailoring drills and providing appropriate guidance for each athlete. *"…a lot of station heavy practices where you've got different drill stations set up…rotate the kids through, and that way... you get a small group to work with. Let's say you put all the backward skaters together, you can run a backward skating drill just in... just with them, right? While the other two groups are working more skill-specific*

stuff like that." Focused on open communication, Bob is consistent with his tone and cognizant of his timing with feedback (scored 4/7 on sociability sub scale of TEIQue-SF). He bases what he communicates on individual (i.e., temperament) and contextual (i.e., time of game) factors in order to support his athletes' needs. Bob supports the needs of the team as well, *"Once the team is picked I'll sit down with the boys and my coaches all in one room and we'll go through some things. Especially on discipline and stuff like that. What they feel is appropriate if, for example, they're five minutes late to get on the ice for practice, or whatever it is… And then that way they feel like they're involved and they feel like they have some input in something that affects them directly."* Although he is able to relate to his athletes' point of view, Bob struggles with generational differences and understanding why kids are not as committed to hockey like his generation was.

Communicating with parents comes easy to Bob (scored 3.45/5 on ICCS), where he proactively sets clear and explicit expectations with them. However, he believes that his focus on communication is not shared or seen as a priority by other minor hockey coaches. *"I've seen coaches yell and scream... I'm also a referee so I hear all these coaches yell all the time. And there's some that just go off on the bench... go up and down the bench yelling and screaming, and typically those coaches have a lot... I notice their kids doing a lot more of that stuff {slamming sticks}."* In contrast to what is commonly witnessed in minor hockey, Bob understands the transfer of emotions (scored 5.1/7 on emotionality sub scale of TEIQue-SF) and wants to be a positive role model for his athletes.

Bob finds that coach education conferences are helpful in preparing him for what he may encounter. *"The technical clinics you go to when you have to get development 1 certified so you*

can be the head coach of a rep team…to me it's all like I know that stuff. I've been around long enough, I've watched the game all the time. To me, it's easy and second hand, and it's probably for most coaches." Being experienced in the sport of hockey as a player and a fan, Bob feels that the area in which he needs more education in is communication along with issues faced by this generation of children (i.e., technology, social media and bullying). The coach development conference that made a *"monumental"* impact on his coaching philosophy was run by a local sport psychologist and hockey coach. *"…he's changed a lot of sort of my perception of breaking through to the kids. And recognizing what works for them versus what doesn't… I find that what he's teaching in regards to breaking through to each kid is the real difference in actually changing them."* Although these trainings were not mandated by the association in which Bob coaches, he believes coaches should have more education based on psychological concepts than simply technical development.

Participant 10: Ron

"*The role of a coach is to be a mentor or someone that they {athletes} can look up to, someone that can be a motivating inspiration to them, to hopefully further their skills and development at whatever specific sport they're doing.*" Ron had the opportunity to play at a highly competitive level as a hockey player and took some time to coach in Asia. He has almost 10 years of coaching experience and currently finds himself as a head coach at the AAA level in urban Ontario. Even though he does not coach his own son, Ron enjoys spending time with him at the rink and supporting him from the sidelines.

On top of being a role model for athletes, Ron believes skill development is crucial to being an effective coach. *"I believe first of all, that skill development is the be all end all for*

everything. If you don't have skills, you cannot get to the next level - at the higher levels." He values preparation for himself as a coach, expects to see work ethic from athletes and speaks highly of communication between the coach-athlete dyad. He draws attention to the importance of lifelong learning and always trying to get better as a coach. Ron believes his experiences, being hands-on and talking to other coaches has made the most impact on his ability to coach. Discussing the dynamic field of sport, Ron is challenged by *"sticking to the plan"* when things do not go as expected in a season.

In his preparation for the season, Ron takes time to assess the individual players by looking at their strengths, weaknesses, ability to learn and individual characteristics. With this information, he is prepared to offer support, opportunities to develop life skills and an optimal position or role on the team. *"We sort of have to find out what we've got, what works well with each other and our team chemistry is according to who's working well with each other. But at the same time, understanding so and so's strengths versus his weaknesses and somebody else's strengths versus their weaknesses. And continuing to have those conversations and communicate with those athletes to make sure that they understand what they need to be working on, what they're good at, what they maybe need, are challenged in a little bit, so I think the communication piece with the players is huge."* Ron communicates his expectations (on and off the ice) as well as his objectives with his athletes. *"We'll have the plan set. Then we get to the rink, I'll post it in the kids' room, the dressing room… Every practice I give them the objectives, write them down on the sheet, here's what the plan looks like, here's what the theme of the practice is. And here are the drills, the skill stuff like that's going to get us to the main piece."* Being clear with the technical side of coaching leads into interpersonal aspects as well, where

Ron and his coaching staff check off when they talk to an athlete during practices and games in order to ensure they are reaching everyone.

Even through communicating with parents, Ron creates a clear picture of the expectations of a parent and the boundaries that will be upheld throughout the season. He ensures parents understand their role in supporting their child's effort, reminding them to focus on what their child is able to control. However, Ron feels that parents can sometimes be challenging. *"They are very, very fickle and they'll talk a good game. They'll respect you while they need to, but then as soon as you're not winning enough, they're gone and they're looking for greener pastors. Unfortunately as a coach you have to sort of stick to your guns and realize that - yeah, you're doing the right thing for everyone."* He discussed situations when parents were self-involved, putting the needs of their children in front of other players. Further, that parents in his league are not loyal and do not see or trust in his long-term plan for development.

It is not only parents that are forsaking positive youth development for competitive results as Ron reports his views on the issues surrounding minor hockey. *"A lot of people are short sighted on focusing on the outcomes. And that relates to more systems, structured play. Maybe arguably turning some kids into robots essentially just so they don't make any mistakes and you win games and they lose sight of the fact that they're not working long enough on their individual skills and practices and it kinda goes lost. And you might win games, but overall your players aren't really individually developing throughout the year."* Ron also discussed how this structure of minor hockey has been impacting his own coaching practice. *"So that's to me the hardest thing for a coach is to balance those expectations of winning versus long-term development… I know that I want to be more of a long-term developer, but unfortunately the guys*

like me that think like that are usually out of a job by the end of the year because you don't have studs and you actually have to coach and you have a weaker team."

Table 1
Participant Instrument Scores

Participant	Age	Context	Education Level	Job	DTLI - YS IC sub scale (x/5)	ICCS (x/5)	TEIQue - SF (x/7)				
							Well-Being	Self Control	Emotionality	Sociability	Total
1 - Nick	42	AA/AAA Ontario	Professional Degree	Director of Skill Development Schools	4.75	4.27	5.33	4.33	5.5	4	5
2 - Vince	45	House Ontario	Bachelor's Degree	Manager of Construction Business	4.75	3.36	5.67	4.33	4.5	4	4.63
3 - Don	51	House Ontario	Professional Degree	Middle School Teacher	4.25	2.91	5.33	5	5.38	4	4.93
4 - Norm	36	House Michigan	Bachelor's Degree	Rink Administrator	4.75	3.41	5	5	5.25	4.17	5.07
5 - John	37	House Michigan	Graduate Degree	IT Sales	4.75	3.32	4.67	4.17	6.13	3.83	5.07
6 - Connor	47	AA/AAA Michigan	Graduate Degree	High School Athletic Director	4.75	3.59	6	4.33	6.25	5.33	5.73
7 - Matt	49	House Michigan	Graduate Degree	Civil Engineer	5	3.68	5	5	5.88	3.83	5.07
8 - Colin	31	AA/AAA Ontario	Graduate Degree	Sport Psychologist	4.75	3.59	5.17	4.67	6.25	4.33	5.43
9 - Bob	26	AA/AAA Ontario	Professional Degree	Coach	4.75	3.45	5.33	4.33	5.13	4	4.87
10 - Ron	45	AA/AAA Ontario	Bachelor's Degree	Coach							

Table 1. Participant Instrument Scores.

Thematic Levels

Results of the study contrasted the assumptions of the bracketing interview, where the researcher's positionally statement included that participants would discuss not having IC strategies within their coaching practices. However, coaches consistently discussed their knowledge and application of IC in their practices and the strategies they used to support athlete needs. Through probing on the practicality of IC, the conversation turned to challenges coaches face in youth sport, specifically the minor hockey environment. In order to interpret the entire

dataset, meaning units that had been inductively created and grouped by each coach were further placed into categories including all participants' data.

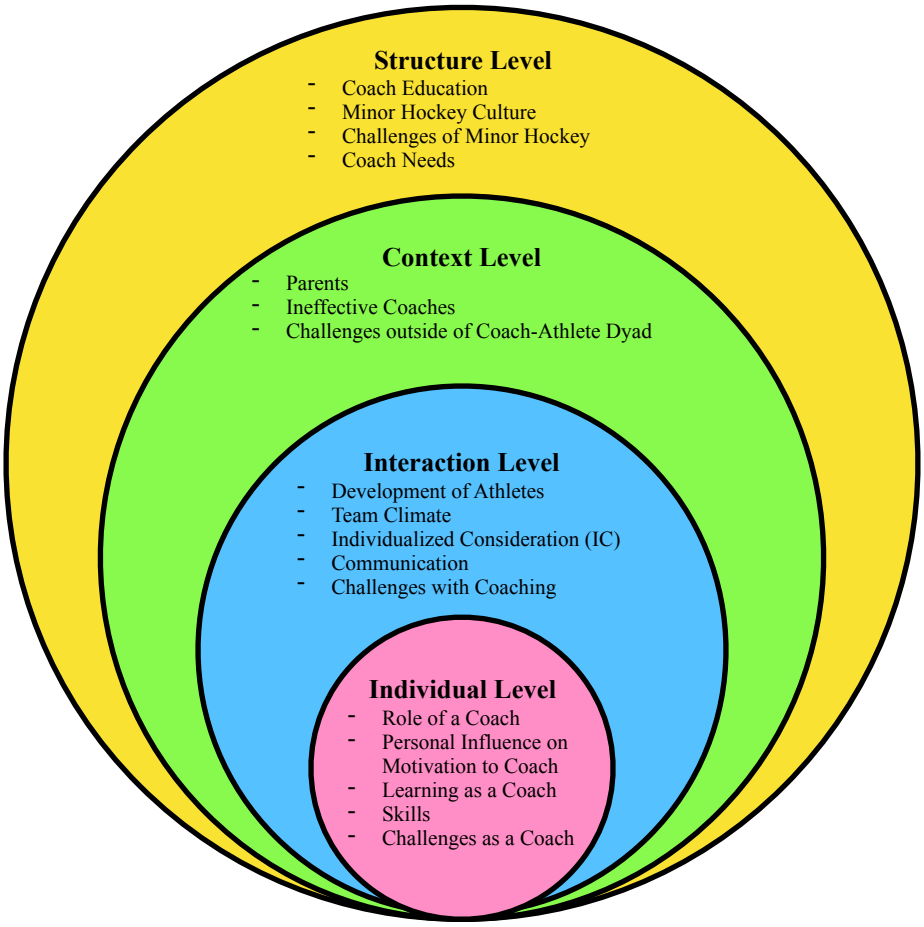


Figure 1. Thematic Levels and Categories - Results.

Outside of the anticipated results, categories emerged that focused on more than the participant's coaching practice and extended to the environment of which the coaches were a part. Thus, to understand and portray an accurate representation of the behaviours of coaches and how they support IC of athletes in their coaching practices, it is critical to explore the environment in which IC is taking place. In order to make sense of the entire dataset and portray an accurate representation of the coaches' experiences with IC, results are guided by Bronfenbrenner's Ecological Theory of Human Development (Bronfenbrenner, 1989). Coaching

research has previously used Bronfenbrenner's (1989) model (see Appendix D) to illustrate lived experiences of coaches, review coaching science as well as depict experiences of sport activity (Bennie et al., 2017; Côté, 2006; LaVoi & Dutove, 2012; Nitsch, 2009). Meaning units were not deductively coded based on this theory, however thematic levels emerged that mirror the model. Results are presented from the individual level through to the structure level.

Individual Level

The individual level described the coach as a person, including their perceptions and experiences with coaching. Participants expressed their role as a coach as well as their motivations for coaching. In understanding how they got to where they are now, they reported on what they learned that helped them with coaching in addition to their preferential mode of learning. Further, coaches disclosed their skills and challenges they face as an individual.

"I think there's that 'it' factor in coaching that you either have or don't have and maybe it's emotional intelligence whatever it might be, it's that ability to connect with somebody to get them to realize that you care about them as a person first. Whether hockey or another sport was there, or not, it just so happens that that sport is bringing you together at that moment." - Connor

Role of a Coach. Coaches described themselves as dynamic individuals that have a thorough understanding of hockey. Participants expressed that they do not see themselves as authority figures that over manage their teams through punishment. Instead, coaches act as *"teachers", "guiders", "influencers"* or *"steerers"* that are available to help their athletes and are role models of responsibility. They are flexible, adaptable, and versatile, especially when

understanding individual differences of each athlete they coach. Important to their role, coaches focus on developing people, not players, through tailoring their interactions to offer support as well as build relationships, trust and mutual respect with their athletes. These coaches recognize technical skill development as an integral aspect of coaching individual athletes, yet are still able to emphasize fun over winning within a group. They observe developmental differences of children when problem solving and supporting their athletes' basic needs. Further, coaches understand they are part of a coaching staff in which each coach has their own individual role. They realize that specific duties shift from head to assistant coach and cohesion is built through strong communication and shared values.

Personal Influence on Motivation to Coach. Coaches cited their passion and dedication for hockey as well as their ability to relate with children as driving forces to take on their role. They are emotionally invested and hopeful of making an impact to each athlete they coach. With their growth mindsets, coaches defined themselves as genuine, enthusiastic and competitive. These individuals are ready to take on the dynamic field, exploring new situations every season while finding what works with each new athlete along with the team environment. Some coaches have been disappointed by the coaches they have had in the past and feel privileged to be in this role. In their practices they highlight the importance of controlling what is controllable; coaches ask for athletes to do the same by concentrating on their individual focus, work ethic and effort. Matt even created an acronym for his athletes to remember; ACE - attitude, concentration, effort. The only participant to not contribute to this category was Colin; he stressed that he will not be continuing to coach in the future, as he has lost the motivation due to the constraints on his ability to support individual athlete development.

Learning as a Coach. Coaches stressed that experience was the most effective mode of learning. They provided anecdotes of situations they found themselves in that were *"turning points"* in their career, especially when recognizing individual differences between athletes. They attributed their development to mistakes, moments of trial and error, other coaches' stories and experiences, as well as their own playing careers. Learning through remorse, coaches began to focus more on supporting athletes rather than controlling them. Off the ice, coaches discussed gaining a new perspective from becoming a father. They realized that being calm and positive worked better than being intense, allowing for them to be open and understanding of their athletes. Coaches also noted the importance of standing for something in addition to managing their own expectations. Outside of sport, they developed intrapersonal and interpersonal skills (i.e., emotional control, self-reflection, and perspective taking) that supported their effectiveness as to implement IC strategies in their practice. Matt, the only participant that did not have any experience playing hockey, did not stress sport-specific experiential learning as beneficial. Whereas, coaches that had experience teaching (Nick, Connor, and Matt) were the only participants to describe their personal learning and how it translated to their ability to coach.

Skills. Coaches reported their perceived skills on intrapersonal, interpersonal and professional levels. Intrapersonal skills that were discussed included many aspects of emotional intelligence; patience, emotional control, listening, empathy, self-awareness, understanding other's perspectives as well as relating to others. These skills supported the coaches' ability to understand the individual differences between their athletes. Their interpersonal skills centred around communication yet ranged from being proactive and objective to being able to talk to parents, thus allowing for coaches to gather information about each individual athlete.

Additionally, coaches mentioned supporting autonomy and providing opportunities for life skill development for their athletes. Professionally, coaches believe they are efficient with organization and preparation by being balanced and consistent as well as providing an explicit focus or objective for their actions. They also stated individual player technical assessment and development were easy to facilitate within their teams. Bob, being the least experienced coach in the sample, did not discuss his skills.

Challenges as a Coach. Following the description of skills, the challenges coaches were faced with fall to intrapersonal, interpersonal and professional groupings. Coaches struggle with self-regulation and understanding cognitive processing while facing an environment of constant stressors and situations that require swift decision-making. They also perceive IC as difficult to accomplish when coaching, especially when differences are not blatantly shown. Although all coaches faced different challenges, discipline was the most frequently reported between them, specifically in situations where some athletes were *"uncoachable"*, when coaching their own children, as well as in holding individuals accountable. Additionally, coaches feel that the amount of time available to have any influence on their athletes individual development as well as expectations of others constrained their practice. They feel that there is not enough time for IC, that trial and error take up a lot of time, and that it is hard to break through from being static in their approaches. Individual coaches discussed the physical strain of coaching hockey, skill development and technology to be challenging.

Table 2
Individual Level: Categories and Groupings

Categories	Groupings
Role of a Coach	• Description of the Role • What Coaches Should Be • What Coaches Should Focus On • Roles Within a Coaching Staff
Personal Influence on Motivation to Coach	• What Coaches Are Bringing Into Their Experience • What Coaches Are Expecting Out of Their Athletes
Learning as a Coach	• Experiential Learning in Sport Environment • Personal Learning "Off The Ice"
Skills	• Intrapersonal Skills • Interpersonal Skills • Professional Skills
Challenges as a Coach	• Intrapersonal Challenges • Interpersonal Challenges • Professional Challenges

Table 2. Individual Level: Categories and Groupings.

Interaction Level

The bulk of coaching practices were explained through the interaction level. Coaches discussed how they implement development along with their team climates and what they focus on as a unit. They explained their strategies of IC as well as their use of communication within their practice. Further, coaches expressed the challenges they face with individual athletes, the coach-athlete dyad and outcomes of their practice.

"So from that standpoint {growth mindset} I always think, there's always a better way to do something or another way to do something. Just because it works for one kid, I know it's not gonna necessarily work for every kid. And with that thinking, I try to collect as much of that as I can and then relate it to my kids. Again, you're not always gonna be right. We talked about it, but at the same time, the more I

can gather in that regard. Like that as a coach is what gets me going. Like how can I better myself to better these kids, or keep those kids going to where they need to be." - Norm

Development of Athletes. Coaches cited positive youth development as a model to develop individuals, emphasizing confidence as well as technical development. Aspects of a growth mindset such as; learning from mistakes and stepping out of your comfort zone, are used to reinforce development. Coaches apply scaffolding when planning practices, using a balance of repetition and free play. Both implicit learning and reinforced teachable moments work together to facilitate development.

"Chronological skating drills, always go back to the same skating drill every practice, work through. It's crazy but I based my practice plan this year… I said - okay, I'm gonna start basic skating and work from there. Go to crossovers. And if the worst guy on the team can do it, then the best guy should be able to do it. And I said - I'm gonna stick to fundamentals with these kids. Work forward and that's how these kids evolve… that's how they all got better." - Vince

Individualized Consideration (IC). Coaches described the first step to IC was to gather information on their athletes by observing them, interacting with them, and assessing normative behaviours through team interactions. After getting to know their athletes, coaches are able to catalogue athletes and choose the effective avenue to coach that individual. Coaches evaluate their athletes by assessing developmental differences (i.e., cognitive, emotional, and physical development), individual characteristics (i.e., determination, perfectionism, concentration,

respect, autonomy, self-regulation), individual perceptions, skill level, strengths and weaknesses, their expectations (i.e., pathways, goals and trajectories) and motivation. Changes in behaviour and body language were seen as cues for coaches. Participants understand the external influences on their athletes, such as prior experiences with hockey and parents. Coaches also assessed group considerations on how individuals fit within the team by assessing roles, social competence, and team work. Participants described being dynamic in their decision-making and approach to different individuals in order to find an optimal push. They adjust their coaching strategies by providing individualized feedback and equal opportunities, adapting to skills and objectives, as well as supporting intrinsic motivation. In practice, coaches tailor drills to the needs of their team by using various ways of technical instruction (i.e., visual or verbal) and encouraging external skill development in case-by-case situations. Seeing from the athlete's perspective allows coaches to tailor their messaging. They shift their communication style when setting expectations, controlling the environment and relating to athletes. These differing approaches help coaches to understand and connect with their athletes as their athletes pay more attention, are able to self-identify with their development as well as learn.

"I think it again it goes back in my mind to knowing your kids. How do you know your kids? Do they know that you care about them? Do they know that it's important that they're not just another team member that just comes and goes and nobody acknowledges them, that they were there today. That's the other thing." - Connor

Team Climate. Coaches attempt to build an environment that is caring, trusting, and understanding. Much like going *"out for recess,"* coaches encourage team play and interaction

between athletes. They use specific strategies to develop cohesion within the team, specifically allowing athletes their choice in leaders, rules and punishment. Through the team climate, athletes sense that the coach has their back but allows for them to figure things out on their own. Additionally, supporting peer interaction by allowing for the space to build relationships satisfies basic needs and provides motivation for players. Ensuring the environment is fun is also important. When the experience is not fun, coaches may be unfairly punishing athletes through removing playing time.

Communication. Coaches described the manner in which they communicate with athletes is calm, open and consistent. They are proactive, specific, and honest when approaching their athletes. Through explanations and being diplomatic, coaches are aware of their tone. They avoid sounding angry, although are still loud and clear by being positive. How they express messages changes as well, through praise, feedback, encouragement, positive reinforcement or discussion. They communicate through modelling desired behaviours, setting clear expectations and objectives, as well as encouraging cognitive development of athletes by asking thought-provoking questions. Messaging surrounds visuals, tactical strategy, rationale for objectives and actions as well as discussion outside of hockey. The goal of communication with athletes varies with every situation; coaches may be trying to motivate their athletes, clarify their role on the team, stimulate reflection, get athletes focused, provide perspective, build rapport, or handle conflict. Further, coaches communicate with athletes to manage their behaviour. Setting expectations involved coaches communicating a specific focus or objective, demonstrating the appropriate behaviours, providing cues for direction as well as reinforcing boundaries. Coaches specified that communication was integral to effective discipline and expressing consequences of

inappropriate behaviours. Managing athletes behaviour shifted into an opportunity for life skills by stimulating reflection and connecting behaviour to life experiences. Coaches highlighted how to handle failure and be accountable by discussing the relevance of situations to athletes' growth. Coaches also noted that who they were communicating with (i.e., individual athletes, team as a group, other coaches, referees, and parents) changed their approach and style.

"They're gonna put their best foot forward whether I call them names or I tell them they're awesome. So it's better to tell them they're awesome. I've really reflected on that and changed everything to positive. Even when disciplining a child it's - you're better than that, hold yourself to a higher standard. I've seen some great things from you, I'm gonna need you to bring those back. This is not the right you I'm seeing. You {coach} get angry, you get frustrated. That's not the person you need to be." - Nick

Challenges with Coaching. Within their coaching practice, coaches discussed challenges surrounding athletes, the coach-athlete dyad as well as outcomes of coaching. They brought up handling intra-team conflict and generational differences between themselves and athletes. Further, athletes' individual commitment levels, temperament and bad habits caused problems for coaches. Time posed an issue on major aspects of coaching, specifically feasibility of IC and when communicating with athletes. Finding an optimal push and directing athletes was not easy either. John also discussed that building relationships with athletes was a struggle when he was worried about other perspectives on his motivation to have relationships with athletes. Coaches

discussed when their coaching was not effective, leading to a lack of cohesion within the team, a lack of growth in hockey sense, or a lack of development as an individual.

"I'll joke around with them, but this day and age, I do try to keep a nice little distance from getting too personal. I'll buddy up with the parents or whatever... This year scared me, the fact that there's people associated with the program that are tied directly to the whole Nassar thing. It's in our back yard. It's real and it exists and I have that kind of in the back of my head, that people are hyper-aware and sensitive of those things these days… I've been more focused on making sure the friendship stops with the hockey. As far as the kids are concerned. I've noticed that a lot of people are doing that now. Which is good. If nothing more than just to set the parents minds at ease… And now it's a different world and I'm definitely sensitive to that." - John

Table 3
Interaction Level: Categories and Groupings

Categories	Groupings
Development of Athletes	• What the Athlete is Developing • How the Coach Supports Athlete Development
Individualized Consideration (IC)	• Gathering Information About the Individual • Assessment of the Individual's Needs • Actions to Support IC • Outcomes of IC
Team Climate	• Description of the Climate • What Coaches Focus On to Support the Climate • Negative Aspects of the Climate
Communication	• Manner of Expression • Mode of Expression • Message Information • Goal of Messaging • Behaviour Management • Recipient of Message

Table 3 (cont'd)

Categories	Groupings
Challenges with Coaching	• Challenges with the Athlete • Challenges between the Coach-Athlete Dyad • Challenges with Desired Outcomes

Table 3. Interaction Level: Categories and Groupings.

Context Level

Within the context level, aspects of the environment of which both the individual (coach) and interaction (coach-athlete dyad) are a part are presented. Coaches interact with parents as well as opposing coaches - who are described as ineffective. Additionally, the context level brings on added constraints to coaches.

"I've seen coaches yell and scream... I'm also a referee so I hear all these coaches yell all the time. And there's some that just go off the bench... go up and down the bench yelling and screaming, and typically those coaches have a lot... I notice their kids doing a lot more of that stuff {slamming sticks/emotional outbursts}. And I don't know how they're approaching it, but I've found that for the most part, those first few times it happens, if you're positive and tell them {athletes} - oh just forget about it, move on. They're pretty quick to respond to that." - Bob

Parents. Coaches described the parents involved in minor hockey as needing to be informed about their children and requiring consistent communication efforts. They stated the importance of being proactive when setting expectations and reinforcing parents' behaviour, especially when parent-coaches are involved with the team. Parents have the ability to make a

positive contribution to the team when they are helping and showing appreciation for the coach's time and effort. However, they can also be a constraint on coaching. If parents are unaware of their boundaries and coaches are permissive of their over-the-line behaviour, they may be negatively influencing the team, coach and child. Coaches find that parents have unrealistic expectations of the role of a coach, which coaches are unable to manage the expectations of prioritizing each individual athlete and their needs. Coaches are unable to engage with parents who lie, are self-involved, worry only about their child, are uncommitted, and struggle to communicate. Inappropriate behaviours of parents can also be a distraction for the players. Coaches noted that parents can influence individual differences between athletes by not being disciplined with or contrastingly putting pressure on their children. Matt did not discuss parents or other ineffective coaches during his interview. Having not participated in hockey prior to his son's experience, Matt may have a different initial experience of minor hockey. Whereas all other participants have had various experiences with minor hockey before becoming a coach, which may influence their perceptions coming into coaching. Dave and John were the only participants to speak well of parents support. Both of these coaches are house league coaches that are not parents themselves.

Ineffective Coaches. Having experienced ineffective coaching through their own mistakes and opposing coaches, participants described what ineffective coaches look like in minor hockey. Coaches that expect unrealistic expectations of individual athletes as well as expect perfection from their players can create environments that focus on outcomes and promote anxiety. Further, when a coach acts neurotic or with no emotional control, those emotions may transfer to the athletes and be demonstrated in athletes' varying emotional

responses. Ineffective coaches are often unable to connect with and understand individual athletes' needs by being disrespectful and showing a *"false sense of passion"* when they yell and use profanity. They do not provide equal opportunities for individuals to develop, support autonomy, or relate to their athletes. Commonly, coaches in minor hockey are unaware of the influence they have on their athletes resulting in a negative effect when their efforts to punish are over used as well as when their effort to communicate is perceived as distracting and fear promoting. *"Screamers"* that yell at their athletes' emotional responses reinforce the message that screaming is a rational reaction when things do not go their way. Ineffective methods of development flood the ice, stemming from a lack of hockey knowledge and technical skills. Further, ineffective coaches do not hold their athletes accountable and participants have to respond by being cautious of opponents playing *"dirty hockey"*.

Challenges Outside of Coach-Athlete Dyad. Coaches are faced with expectations in their role, some which are constraining of their practice. Specifically, constantly having to keep up with a changing coaching model and finding ways to reinforce discipline without using the outdated method - removal of playing time. Further the use of punishment to manage individual athlete behaviour is a prominent challenge that coaches have to overcome in minor hockey. Athletes have differing needs which may not be supported through punishment. Dependent on the league or association, coaches may be ill-equipped with ice surfaces or assistant coaches, causing more of a constraint.

Table 4
Context Level: Categories and Groupings

Categories	Groupings
Parents	• Description of Parents in Minor Hockey • Challenges with the Parents • Challenges Faced by the Team due to the Parents
Ineffective Coaches	• Intrapersonal Challenges • Interpersonal Challenges • Professional Challenges
Challenges Outside of Coach-Athlete Dyad	• Expectations • Interpersonal Challenges • Resources

Table 4. Context Level: Categories and Groupings.

Structure Level

In the structure level, the minor hockey association or organization of which the coach is a part of is described. Details of the coaches' experiences with coach education through the organization were discussed, reflecting on how they were educated, what was effective versus ineffective and what they desired to know more about. Additionally, coaches commented on the culture of minor hockey, on the challenges that come along with this culture as well as on their needs and required organizational support.

> *"So I think we sometimes try to, you know, we're so worried about winning hockey games that we lose sight of breaking the structure down into more individual skills training. Um, which is I think the biggest problem with minor hockey really, if you really want to get into that. That is kind of the biggest issue that I have with minor hockey. Is that, especially at the AAA level, we treat it, it's almost like, you know, we're treating it as a mini NHL, a mini professional league. It's not, that's the, obviously it's not that. That's I think where the*

biggest, where we've got to continue to work more on our skills, especially up to a certain age around 14/15 years old before we get into more structural things." - Ron

Coach Education. Participants reported having taken specific coach development courses, attended conferences, and researched online resources. Coaches preferred different avenues depending on the content, although enjoyed learning through anecdotes, by listening to other coaches as well as their own mentors or role models. They expressed how helpful regional clubs were as they provided drill resources. Participants felt that learning is valuable and can be impactful with consistent messaging. Effective programming involves a balance between technological and in-person teaching. Additionally, programs should be concise, applicable and run by enthusiastic individuals. On the opposite hand, some mandatory programs were considered irrelevant to the age-group, not helpful or applicable. Coaches indicated three areas that they desired to learn more about; professional, interpersonal, and IC. They want to learn more about the recovery time of athletes, how to implement development, how to keep up to date with changing strategies as well as dealing with social media and technology. Further, participants believed it would be beneficial to have more modules for interpersonal skills such as; communication, leadership and bullying. IC was another area of desired education, specifically assessing developmental differences, cognitive understanding, peak development phases as well as how to consider time in skill acquisition.

Minor Hockey Culture. Perspectives of the minor hockey culture differed from American and Canadian participants. American coaches felt that the culture of minor hockey was shifting, focusing more on sport psychology aspects much like when strength and conditioning

was introduced as a *"game-changer."* As well, that authoritarian coaching was slowly decreasing and being replaced with autonomy-supportive coaches. However, Canadian coaches were adamantly describing the culture as *"broken"* and *"outcome-focused."* Believing that the structure of minor hockey was not supportive of individualized player development, coaches felt their behaviours were unaligned with their perceived role. Canadian coaches felt that the overly competitive environment is constraining on their ability to support athletes moving through a trajectory of positive youth development.

Challenges of Minor Hockey. The structure of hockey is impacting coaches and challenging them on an intrapersonal, interpersonal, professional and environmental level. Coaches feel unqualified in their role to develop each individual athlete they coach and feel unbalanced in their personal lives with minimal off-season time. They struggle with the *"human aspects,"* wishing they would be able to provide all children with an opportunity to play when the structure does not allow for it. With the constant drive to win, coaches cannot provide equal opportunities for every individual player and support their individual developmental needs. They feel that *"incompetent associations"* do not understand what is happening on the ground floor, or what time, resources, and money is required to enhance the coaches' opportunity to support individual athletes' development. The politics and media involved in minor hockey have been problematic for coaches. Further, coaching in a fixed-mindset environment diverts coaches from being creative and dynamic when catering to the needs of individual athletes.

Coach Needs. The two highest educated participants, Nick and Colin, provided suggestions for bettering the structure of minor hockey in order to support IC within coaches' practices. Coaches felt that those involved in minor hockey need to understand the perspective of

the coach and empathize with their situation of balancing individual needs of multiple athletes. Coaches are trying to change the culture from competitively driven to being fun again, but they need help. They feel disrespected by other minor hockey stakeholders and believe that in order to gain respect for their role as a coach to support individual development, the associations of minor hockey must get organized in their objectives for athletes. Participants commented that coaching minor hockey may need to become professionalized, attached to a college or have a regulatory body to maintain order and consistency. Further, the implementation of technical directors may be beneficial for organizing developmental plans that support the diverse needs of individual athletes.

Table 5
Structure Level: Categories and Groupings

Categories	Groupings
Coach Education	• Mode of Coach Education Programs • Opinions of Effectiveness • Opinions of Challenges • Desired Coach Education Programs
Minor Hockey Culture	• Positive Aspects • Negative Aspects
Challenges of Minor Hockey	• Intrapersonal Challenges • Interpersonal Challenges • Professional Challenges • Environmental Challenges
Coach Needs	• Environmental Change • Association Support

Table 5. Structure Level: Categories and Groupings.

CHAPTER V

DISCUSSION

With its exploratory design, the results of this study provided deeper insight into the culture of minor hockey, extending past the research questions pertaining to the practice of IC in coaching. The discussion section will reflect on these additional practical insights and further review findings within, as well as between, the levels posited in the results section. The implications this study puts forth for minor hockey organizations and youth sport researchers will then be presented, followed by the study's strengths, limitations, and future directions.

Reflection on Research Questions

This study looked to answer four research questions regarding the practical use of IC in coaching. When exploring how coaches understand and assess the unique individual needs of their athletes, the results described the process of IC these coaches used within their coaching practice. In order to develop their athletes, these coaches gathered information and assessed individual needs before acting in support of those needs. One coach found IC to be challenging and unrealistic when explicitly asked about its inclusion in their practice. However, that coach often implicitly used strategies in their practice informed by the theory of IC. How these coaches used their assessment of athletes' individualized needs when interacting with athletes is evidenced through the results of the IC and communication categories. How these coaches practiced IC changed with the individual athlete, team, parents, situation and environment (i.e., game, practice, locker room, etc.), showing the adaptability required to include IC in their coaching practice.

When looking at the personal characteristics of the participants, these coaches did not differ on whether they used IC in their coaching practice. Instead, the individual participant's experiences and skills drove which role of coaching (i.e., technical development, personal development, team cohesion, etc.) they valued the most and how they practiced IC. For example, a coach who valued technical development focused on feedback/instruction or tailoring drills to an individual's strengths and weaknesses, whereas a coach focused on personal development emphasized talking to their athletes outside of sport or reinforcing life skills. The IC strategies discussed by the participants were vast and perceived as learned through experience rather than formal coach education.

With that, these coaches were asked to reflect on what training would be useful to enhance their own coaching practices and provided helpful information for coach education developers. Participants determined areas of professional (i.e., implementing development plans) and interpersonal (i.e., communication) knowledges that they desire in coach education programs. Further, these coaches discussed the need for IC modules or seminars (i.e., cognitive understanding of athletes) to support their ability to understand individual athletes and their needs. The answers to these research questions provided substantial detail in understanding the practical use of IC in coaching. However, the results of this study also presented a clearer picture of the ecological levels of the minor hockey environment, in addition to the direct coach-athlete dyad, that influence the use of IC in coaching practice.

Individual Level Findings

Role of a Coach

Touching on previously reported responsibilities of youth sport coaches (Vella et al., 2011), participants justified their understanding of their role as a coach. Results aligned with Gilbert and Trudel's (2004) role framing of coaches, in that the personal views of a coach's role reported by model youth sport team coaches were mentioned by participants of this study. Participants' personal views of roles included: discipline, equity, emphasis on team, fun, personal growth and development, positive team environment, and sport-specific development. These findings led the researcher to problematize coach education and youth sport organizations' efforts to develop coaches, contemplating whether coach education is telling coaches what they already know.

Personal Influence on Motivation to Coach

This sample of coaches proved to be intrinsically motivated to remain involved in the sport of hockey as well as to help youth athletes develop a love for the game and enjoy their experience. Results coincided with previous research stating that coaches are motivated by connection with sport, coach and athlete development, external influences, and internal influences (Mclean & Mallett, 2012). Rundle-Thiele and Auld (2009) suggested four determinants (team dynamics, intrinsic motivating factors, club/context relations, and support) of a coach's sustained involvement in coaching. As participants felt rewarded from their experiences (positive team dynamics) and enjoyed giving back to the game (intrinsic motivating factors), constraints on coach motivation may have occurred within club/context relations or

support aspects with these coaches. Therefore, the results of this study posit that these coaches may be losing motivation due to a contextual or structural influence.

Learning as a Coach

Participants reported on how they learned the necessary skills to be an effective coach, consistently contributing their learning to anecdotes of other coaches, their own coaching as well as personal experiences (i.e., employment, fatherhood). Results of this study are supported by the evidence compiled by Stoszkowski and Collins (2016), who found that 55% of participants preferred learning from other coaches, 6.7% preferred practical experience and only 1.6% preferred formal coach education. Again, these results led to the researcher problematizing coach education, considering if implementing mentoring programs would be a more timely and contextually appropriate avenue for coach development.

Skills & Challenges as a Coach

These coaches described different individual skills and challenges, reinforcing prior evidence that individual characteristics impact coaching practice (Horn, 2008) and providing support for IC of coaches. As these coaches differed in their skills and challenges, much like finding which roles athletes are more able to fulfill, organizations may consider the contexts in which each coach would be most effective.

Participants also discussed the idea that coaching practices often shift within a coaching staff, where assistant and head coaches are responsible for individual roles (i.e., organizing practices, communicating with groupings of athletes, etc.). This concept of coaching staff cohesion is novel to youth sport research. Although briefly touched upon in discussing coaches' expectations of athletes (Solomon & Lobinger, 2011) as well as mentoring and supporting

assistant coaches' development (Rathwell, Bloom & Loughead, 2014), coaching staff cohesion is an innovative line of research that needs to be explored. Determining what makes an effective unit of coaches, while playing into the strengths and weaknesses of individual coaches, would greatly enhance the quality of coaching in youth sports.

Interaction Level Findings

Development of Athletes

Athlete development was a central tenet to participants' coaching practices. Previous research on PYD in sport has discussed the importance of coaches taking responsibility for athlete development, providing opportunities for skill building, as well as creating an appropriate structure for development (Strachan, Côté & Deakin, 2011). Coaches in this study understood their role was to develop athletes and subsequently discussed successful ways to accomplish this task. Participants reinforced the importance of technical development in their coaching practice, especially in assessing technical ability of athletes in order to create productive practices where each athlete has the opportunity to develop their skills. However, these coaches reported that creating and implementing a uniquely tailored development plan for each individual was challenging. This finding suggests the need for coach education that assists coaches in implementing a development plan that supports the team goals while at the same time tailors to the needs of individual athletes.

Individualized Consideration (IC)

Participants described using IC in their coaching practice, outlining common elements of the process such as gathering information prior to assessing needs and tailoring actions to the needs of athletes. The process of IC is linked with the satisfaction of basic needs (Stenling &

Tafvelin, 2014), thus athletes likely benefit from their coach's attempt to practice IC. The findings of this study suggest that IC is frequently displayed by coaches (Lefebvre, Turnnidge & Côté, 2019). Coinciding with coaches' perceptions of influences on athlete development (Mills, Butt, Maynard & Harwood, 2012), participants described the array of needs their athletes may have. However, in discussing the practicality of IC in their coaching practices, participants noted the constraint of the outcome-focused context in which they were coaching. Thus, these coaches may be inclined to use IC but the context of minor hockey limits their opportunity to do so.

Team Climate

Participants emphasized the importance of creating a *"positive"* and *"welcoming"* team climate, especially due to the interdependent nature of hockey. Aspects of the coach's role in creating a climate that supports PYD include providing a happy environment that unites the team on both accomplishing tasks as well as socially (Vella et al., 2011). Through providing choice to athletes, these coaches support the development of responsibility and leadership (Strachan et al., 2011). The process of creating a supportive team climate mirrored the theoretical concept of IC, alluding to the idea that group consideration is occurring. Therefore, these coaches seem to practice additional IC on a group level, attempting to adapt their practices to the unique needs of their particular collection of athletes.

Communication

The results of this study suggest the need for coaches to be effective communicators, as their communication strategies affect motivation, determination and well-being of athletes (Sagar & Jowett, 2012). Participants discussed how communication varies depending on who, when and what the outcome of the message was. This differentiation in the use of communication aligns

with the theoretical concept of IC. Participants' descriptions of their communication style coincided with Rhind and Jowett's (2010) model for maintaining quality relationships with athletes. These coaches further emphasized how critical communication was in their efforts to manage the behaviour of athletes. Providing clear expectations and encouragement enhanced coaches' ability to build a relationship with and develop their athletes (Strachan et al., 2011). Although participants emphasized communication, they scored low on the ICCS instrument. This disparity between findings highlights the participants' perceived need for coach education to involve more effective and practical communication strategies that would support the use of IC in coaching practice.

Challenges with Coaching

While participants were faced with differing challenges, these coaches did not often report technical aspects as challenging while the most frequent challenge reported was successfully developing athletes. Looking outside of the interactional level, the context of minor hockey may be creating a contrasting demand that constrains coaches' ability to develop athletes (Occhino, Mallett, Lynne & Carlisle, 2014). These coaches were motivated to help athletes develop, however the competitive demands of minor hockey may be pressuring coaches to focus on the outcome rather than the process. These findings can inform youth sport researchers and organizations on the needs of coaches and what resources coaches would find useful (i.e., development implementation plans and support).

Time. An important aspect of Bronfenbrenner's Theory of Human Development is the chronosystem, the changes and shifts that occur due to moving through time points. This system was touched on by participants when discussing time as a challenge. In developing their athletes,

these coaches reported uncertainty regarding when to introduce new tasks, when to push them out of their comfort zone, or how long the process would take. In looking at the length of time a season is or how much time a coach has with their athletes, participants were stressing how constraining the outcome-focused culture of hockey was on their interactions. Exploring how the chronosystem influences effective coaching would be a beneficial next step for researchers or coach education developers.

Context Level Findings

Parents

Coinciding with previous research (Chan, Lonsdale & Fung, 2012; Merkel, 2013), this study found that these coaches perceived parents as significant influencers of their own children's participation and experience of minor hockey. Furthermore, as parent behaviours inevitably transfer to athlete behaviours (Arthur-Banning, Wells, Baker & Hegreness, 2009) this parental influence may seep into the coach-athlete relationship through interactions. Parents impose a variety of stressors on coaches (Knight & Harwood, 2009), and being unable to connect to all athletes is a challenge for coaches even without the parental influence. Therefore, parents should encourage their children to listen and learn from their coaches in order to support the coach-athlete relationship and allow for coaches to be effective in their role.

These findings showed an extension of the effect parents have on their children's experience in youth sports as these coaches frequently reported parents to be their biggest challenge with coaching. In knowing the impact parents have on coaches, youth sport researchers may need to look at external factors influencing coach effectiveness. Investigating coach effectiveness should not stop at the interactional level (i.e., between coach and athlete), but

continue towards an understanding of the steps needed for the environment of youth sports to provide the opportunity for coaches to be effective in their implementation of IC.

Ineffective Coaches

Participants described their perspectives on ineffective coaching practices, as seen within their leagues in various forms - from not providing equal opportunities for all athletes to the *"screamers"*. The reports of these coaches coincided with research of player perspectives of ineffective coaching practices (Gearity & Murray, 2011) as well as the influence coaches' emotion regulation has on performance outcomes and social interactions (Davis & Davis, 2016).

With most of the previous literature on ineffective coaching suggesting coach education as a way to support coach efficacy (Sullivan, Paquette, Holt & Bloom, 2012), the findings of this study suggest a potential secondary option. One participant felt that coaches need a regulatory body that observes coaches in order to manage their behaviours. Instead of researchers asking questions as to how to make coaches better, questions may need to surround (a) what is happening to allow these coaches to act that way and (b) who is in charge of ensuring coaches are acting appropriately? Again, looking beyond the interactional level to the youth sport organizations, safety of athletes should be prioritized (Kerr & Stirling, 2008). Researchers should deepen their understanding of what role a youth sport organization has on monitoring the coaches they employ as well as in creating an athlete-centred environment.

Challenges Outside of Coach-Athlete Dyad

Another challenge these coaches reported being faced with was discipline, especially using appropriate punishment strategies. There are unintentional ramifications of punishment in youth sport, such as: damaging coach-athlete relationships, increasing performance anxiety and

fear of failure, as well as decreasing athletes' self-esteem (Albrecht, 2009). Further, a study of 11-13 year old youth hockey players reported their experiences with punitive coaching behaviours, evidencing that these behaviours were thwarting developmental needs (Battaglia, Kerr & Stirling, 2017). In a following study, Battaglia, Kerr and Stirling (2018) found that punishment decreased enjoyment and increased decisions to not participate in minor hockey.

In this study, participants discussed their experience with discipline along with their realization of the impact it had on their players. Yelling and using profanity was deemed by participants as an ineffective way to discipline youth athletes, as these coaches tended to discuss realizing that they could not control the game by being negative but they could control how the players felt through encouragement. Coaches in this study discussed times when they used discipline and how they managed their athletes' inappropriate behaviours. Whether that meant using positive reinforcement, intellectual stimulation or incorporating life skill development into their practice was dependent on the situation and individual. Their initial reaction was not to punish their athletes but to use communication strategies, such as asking athletes questions to clarify their thought process and stimulate problem-solving. These findings show researchers that these coaches who do not resort to punishment as their automatic disciplinary strategy are prioritizing communication with their athletes, therefore highlighting the importance of interpersonal knowledge in effective coaching practices and coach education that supports development in this area.

Structure Level Findings

Coach Education

Participants believed that the coach education programs they completed were helpful when the information was relevant to their specific coaching context. Unfortunately, some coaches felt that programs did not cater to the developmental differences of the athletes they coached or failed to provide anything that those who played hockey themselves did not already understand. In order for coaches to translate the knowledge from coach education programs back to their own contexts, they need to connect it to their own experiences (Knowles et al., 2005). Coaches need relevant and applicable content through a variety of learning resources and mentoring opportunities (Nelson, Trudel, Lyle & Rynne, 2009), which is reflected in the comments of the participants and results of this study. Mallett and colleagues (2009) stated guiding principles to consider when creating coach education programs: coaches retain knowledge through guided learning, experiential learning does not occur in formal education, and structured mentoring can enhance informal learning. Participants discussed experiential learning as the most effective mode for their own development along with how mentoring from more experienced coaches provided *"a little bit of a step-up"* on learning to coach. Coach education may need to tailor to the needs, preferences and contexts of coaches to be effective; implementing a structured mentoring program within minor hockey may be an avenue to consider in this regard.

Participants further elaborated on what they desired as topics of coach education programs and how they preferred to learn. These minor hockey coaches wanted more education on effective communication strategies, how to assess cognitive understanding of their athletes,

how to consider developmental differences, as well as how to implement developmental plans with their athletes. In a study classifying the content of coach development programs, results showed only 3% of formal education programs contained information on general youth development and interpersonal skills (Lefebvre et al., 2016). Youth sport researchers and organizations may need to work together to provide coaches with relevant and applicable education programs that support their development and enhance their coaching practices.

Minor Hockey Culture

Participants described the culture of minor hockey as having both positive and negative aspects. Empirical descriptions of minor hockey have only addressed injury prevention (Cusimano, Chipman, Volpe & Donnelly, 2009; Mrazik, Perra, Brooks & Naids, 2015; Cusimano et al., 2016), influence of relative age effect (Baker et al., 2010), and negative behaviours of parents (Bean et al., 2016). Through this study, participants discussed the shifting description of effective coaching in minor hockey as well as how the structure influenced coaches' ability to support individual athletes. These coaches were interviewed from varying competitive levels and two countries with differing minor hockey systems, allowing for results to depend on the organizational structure of which the individual was situated.

Competitive Level. These coaches' testimonies of what constituted effective IC strategies did not waver between competitive levels (i.e., house league to AAA). Additionally, the minor hockey culture was strongly outcome-focused regardless of level. What differed between competitive levels was the caliber of athletes. This level-associated shift in athlete ability influenced what these coaches focused on when developing their players and team. With more skilled individual athletes, "good coaches" in the AAA leagues felt forced to create

"robots" that win games while de-prioritizing time spent on holistically developing their athletes. In the AAA leagues, these coaches who were determined to help athletes develop as people worried they would quickly be without work and lose athletes to *"greener pastures"* or teams that win. On the other hand, less skilled athletes who find themselves in house leagues may benefit from coaches that are skilled in technical development. With participants describing how parents and minor hockey was focused on competitive outcomes, the priority is not put on athlete development. Dependent on the values and skills of the individual coach, organizations may look to think about what coaches would provide to different teams and help them choose an appropriate fit for the coaches along with the athletes they would be coaching.

Country. Participants from both Ontario and Michigan were highly experienced former hockey players that understood the game and wanted to stay connected to the sport through coaching. The difference between countries was found in the culture, where these Ontarian coaches were more frequently frustrated with the structure of minor hockey. Being glaringly outcome-focused, educated and experienced coaches in this study demanded a shift in culture. Canadian participants discussed wanting more stringent requirements and better regulation of coaches as well as more encouragement from their organizations to fulfill their role of supporting athlete development to help alleviate pressure to reach unrealistic expectations. American participants tended to feel more confident in their education modules and felt that the shift in coaching models had already occurred, creating a culture that supported athlete development. Participants coaching in Michigan frequently contributed learning to the USA Hockey training modules as well as the organizational resources that were provided to them.

Challenges of Minor Hockey

Within the structure of minor hockey, these coaches were faced with the challenge of providing equal opportunities for all athletes. This challenge presented itself when navigating the pressures of an outcome-focused system: financial and resource disparities, lacking time, and the ability to focus on each individual athlete. Youth sport researchers and guiding organizations have not provided these coaches with sufficient support to be successful at this task.

In looking across fields to education, Noguera, Darling-Hammond and Friedlaender (2015) suggest policies at three different levels (resources, educators, assessment) to support equal opportunities in learning. Informing the structure of minor hockey based on these suggestions from research in learning may elevate the development of athletes within the minor hockey system. Noguera and colleagues (2015) presented 10 policy implications, and three crucial items to the scope of this study will be discussed here. First, resources should be spent on establishing a structural design that is athlete-centred and supports mastery-based approaches to development. Additionally, coaches should be a part of meaningful professional development and supported by a network between the coach and their organization. Finally, supporting athlete development should be systematic between all youth sport stakeholders; coaches, parents, organizations, and even youth sport researchers can learn from one another and support coaches in adapting their practices to be successful in their respective context.

Coach Needs

Coaches in this study discussed the need for support from the minor hockey organizations they are a part of, whether through providing developmentally appropriate resources for their athletes, communicating to parents or supporting effective practices of coaches in the league.

Coaches are performers as well and have needs that must be met in order to maintain effectiveness in their practice (Giges, Petitpas & Vernacchia, 2004). In what seems to be a role an organization would be responsible for, sport psychologists have attempted to take on the role of supporting coaches. Participants felt that organizations are often incompetent in providing support to develop effective coaching within their own organization. In order for these coaches to feel they are part of a supportive environment, organizations must satisfy the coaches' need for relatedness (Allen & Shaw, 2009). Organizations can do so by connecting coaches in a network, rather than pinning them against each other for positions. Additionally, coaches will start to feel valued when organizations recognize their efforts (Allen & Shaw, 2009).

Further, ameliorating the structure of minor hockey organizations can eliminate some of the diverse roles forced on these coaches. Fraser-Thomas and colleagues (2005) discuss how youth sport programs can foster PYD, highlighting the setting features (i.e., physical/ psychological safety, opportunities to belong), developmental assets (i.e., empowerment, boundaries/expectations), and developmental pathways (i.e., sampling, specializing, investment) of effective youth sport programs. They further propose that future research should look at different sport organizations to see what combination of setting features, developmental assets and pathways would be most effective for that context (Fraser-Thomas et al., 2005). Further research needs to be conducted to help inform the structure of minor hockey of how to more effectively support their coaches and athletes, as well as encourage a PYD focus in the context of minor hockey.

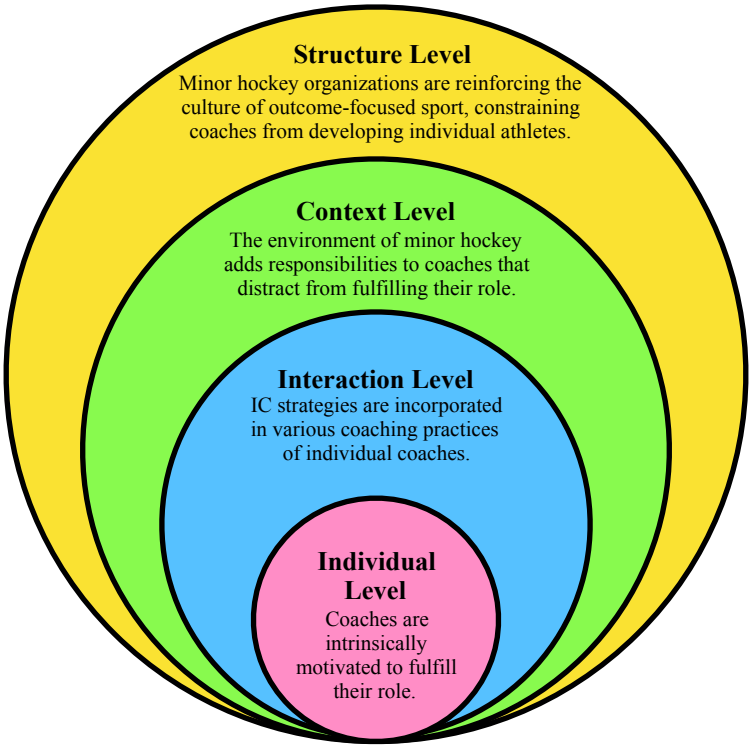


Figure 2. Take Away Message from Levels.

Disconnection - Between Level Findings

Through reviewing the findings of each respective level, a gap began to appear between the individual coach and the structure of minor hockey, with the interaction and context levels serving as intermediaries between these levels. Unpacking the relevance of this disconnection requires discussion of the findings between each level in relation to the structure level.

Between Individual and Structure Levels

These coaches understand their role in youth sport, but they believe the structure of minor hockey is not supportive of them fulfilling that role (Preston & Fraser-Thomas, 2014). These individual coaches differ in experiences, skills, and challenges, yet they do not feel that coach education is tailoring to their needs. These coaches are intrinsically motivated, however the structure of minor hockey is forcing coaches to prioritize winning games.

Between Interaction and Structure Levels

Creating a team climate is important for these coaches, however this goal became difficult within the environment of minor hockey, where other coaches recruit players and parents are always looking for "better teams" for their children. These coaches understand their role in athlete development, although all youth sport stakeholders do not seem to understand each others' roles and do not work together to achieve this common goal. These coaches did not mention mandatory coach education to have significantly influenced their use of IC in their practice, their ability to communicate with their athletes, or their ability to manage athletes' behaviour. Further, mandatory coach education programs that these coaches took did not alleviate any of the challenges participants were faced within their contexts.

Between Context and Structure Levels

The standard for removal of playing time to act as punishment is demonstrated throughout minor hockey, as told by the coaches. Participants that veered away from this expectation - in pursuit of finding PYD strategies over short-term behaviour change - often felt that others viewed them as ineffective coaches. These coaches expressed that they feel a loss of respect from parents when each other's expectations do not line up. If parents are expecting to win games and have authoritative coaching, these coaches focusing on individualized PYD found themselves in a difficult coaching environment. Parents appeared to be reinforcing the standard of ineffective coaches by allowing (and endorsing) inappropriate punishment methods while also asking for short-term fixes in search for a winning season. Coaches in this sample perceived lacking organizational reinforcement of the concept that effective coaching philosophies include PYD to other youth sport stakeholders, especially parents.

Seeing a disconnection occurring between all levels of the minor hockey environment presents an opportunity for the culture to shift. In order to make an effective change in culture, using a top-down approach and working with the structure of minor hockey (i.e., organizations) may have a positive influence. Creating more coach education programs which tell coaches about what they are already doing (a common complaint of this study's coach participants) may not be an effective strategy to culture change. Instead, informing the structure of minor hockey based on what novel coaching practices are effective along with positive steps in coach support may have the potential to positively influence the culture of minor hockey.

Table 6
Implications for the Minor Hockey System

Findings From	Minor Hockey Organizations	Youth Sport Researchers	Coach Education Programs
Individual Level	- Need to support skills of coaches by choosing an appropriate context for them to coach in (i.e., AAA or house)	- Explore coaching staff cohesion; what are effective roles for coaches to play and balance between one another?	- Need innovative and relevant content
	- Need to support intrinsic motivation of coaches		- Need mentoring programs to facilitate learning from one another
Interaction Level	- Need to support coaches using IC and the philosophy in minor hockey	- Help organizations develop resources for coaches	- Include content on implementing a development plan for athletes
	- Need to provide resources that support the needs of coaches	- Understand the needs of coaches and inform organizations of them	- Include content on time considerations in development and coaching
		- Explore the effect of the chronosystem on effective coaching	- Include content on effective communication strategies
	- Regulate coaches' behaviours		

Table 6 (cont'd)

Context Level	- Handle parent communication to alleviate negative influence on coaches	- Explore external factors on effective coaching practices	- Include content on disciplinary strategies
	- Create organization-wide disciplinary rules that support athlete development	- Explore organizations ability to monitor coach behaviours	- Bolster interpersonal knowledge
	- Implement a coach regulation board		
Structure Level	- Structure a mentoring program for coaches	- Explore how coaches can provide equal opportunities to athletes	- Tailor to the needs and preferences of coaches
	- Support coaches by providing a network and developmentally appropriate resources	- Initiate a systematic development and learning plan with all youth sport stakeholders	- Include content on cognitive understanding of athletes
	- Group athletes based on needs, not necessarily skill level	- Inform structure of organization by determining what is an effective set-up for the context	- Include content on developmental differences
	- Regulate coaches' behaviours		

Table 6. Implications for the Minor Hockey System.

Implications

Through analyzing the results between the individual, interaction, context and structure levels of minor hockey, findings provided implications for minor hockey organizations, youth sport researchers and coach education programs. These implications are presented in the hope to alleviate challenges faced by coaches, increase the capacity for coaches to focus on IC, as well as

create a culture that is respectful of the role coaches play in and understanding of the process of PYD through sport.

Minor Hockey Organizations

Understanding their own role in supporting PYD, minor hockey organizations can support coaches by providing developmentally appropriate strategies for coaches to use in their contexts. For example, developing a formally endorsed athlete discipline (as opposed to punishment) protocol that positively influences cognitive, mental and emotional development of athletes could help standardize this culturally accepted approach for all coaches. Some structural changes surrounding coaching may need to occur, such as implementing a coach regulation board and structuring a mentoring program for coaches. These changes have the potential to influence the quality and development of coaches in minor hockey. With coaches being intrinsically motivated to coach youth athletes, organizations need to support rather than thwart coaches' motivation. Providing help where coaches are challenged as well as taking the time to consider child development when coaches may not have the time or ability to do so would logically improve the coaches' as well as the athletes' experiences in minor hockey.

Minor hockey organizations need to prioritize athlete development over competitive results. Hockey Canada defines their mission statement as to *"Lead, Develop, and Promote Positive Hockey Experiences."* Nowhere in their list of 10 beliefs does Hockey Canada discuss winning or competitive results to be important. Ontario coaches consistently argued that the culture of minor hockey needs to shift away from being outcome-focused. Organizations may need to regulate coach behaviours in order to better facilitate coaching that supports athlete development. Additionally, organizations may consider supporting coaches by managing parents'

expectations through communicating coaching philosophies and goals of the organization to parents. Groupings of athletes may need to be based on needs, not necessarily skill level, and provided with a coach that is skilled and able to support the needs of that group. Looking at the suggested club structure of USA Hockey's Athlete Development Model, organizations may want to consider limiting competitive results at younger ages. Further, getting various youth sport stakeholders on the same page (i.e., PYD) may influence the culture of minor hockey to allow for a more focused approach towards personal development of individual athletes.

Youth Sport Researchers

Research has encompassed elements of effective coaching practice and informed coach education programs to help develop coaches of youth sport. Innovative avenues for effective coaching research would be to explore the concept of coaching staff cohesion, understanding what roles coaches can play within a coaching staff to be effective, and balancing the diverse roles often required of coaches. Further, exploring how coaches can provide equal opportunities to athletes would provide practical help to support the needs of coaches. With coaching practices being impacted by external factors, assessing how these factors influence coaching would be beneficial; notably, exploring the effect of the coaching chronosystem could be a fruitful area of exploration. The results of this study showed that coaches learn through mistakes as well as trial and error. If coaches are implicitly learning through their experiences, the focus researchers have on understanding effective coaching practice for PYD may need to be realigned to advising the structure of youth sports. Thus, researchers can explore effective ways for organizations to monitor coaches' behaviours and support (rather than inhibit) developmentally appropriate coaching approaches.

Researchers may advocate for what effective coaches are doing and guide youth sport organizations on how to support coaches' practices. Providing organizations with ways to alleviate the challenges coaches face may have a positive influence on the culture of youth sports. For example, organizations can create a systematic development and learning plan between all youth sport stakeholders by communicating appropriate roles, setting realistic expectations of those roles, as well as creating a culture of growth rather than success. Researchers may also look to assess and improve the quality of minor hockey programs, using tools outlined by Yohalem and Wilson-Ahlstrom (2010) in community psychology research. Measuring minor hockey programs based on quality of staffing, management, linkages to community, and youth leadership/ participation would allow for a different approach to assessing the effectiveness of minor hockey programs. Youth sport researchers can help find ways for each stakeholder to support athlete development. Getting all stakeholders on the same page of what is optimal for athletes based on developmental as well as individual differences is a way that researchers can advise the structure of youth sports to positively influence the experiences of athletes.

Coach Education Programs

USA Hockey states they *"provide the foundation for the sport of ice hockey in America; help young people become leaders; and connect the game at every level while promoting a lifelong love of the sport."* Although Michigan participants attested to the development focused environment of minor hockey, they also discussed numerous ineffective coaches they have witnessed in their leagues. Thus, it becomes evident that coach education programs may still need to shift their designs. Just as coaches are asked to individualize their practice to fit the

needs, strengths and weaknesses of their individual athletes, organizations may consider tailoring education to the skills of the coaches they employ.

Coach education programs are not informed by the interpersonal and intrapersonal knowledges of effective coaching to the extent that professional knowledge is presented (Lefebvre et al., 2016). Through this study, coaches expressed wanting to know more about developmental differences and enhanced cognitive understanding of their athletes. They also expressed the need for more effective communication and disciplinary strategies. Further, understanding how to implement a developmental plan with their athletes while considering external factors such as time, motivations and expectations of parents is something coaches would find useful. Participants preferred learning through other coaches and being mentored. Structuring mentoring programs for experienced coaches to help develop new coaches could be an initial aim for coach education. Through understanding what knowledge is being passed between coaches, formal coach education programs can then fill in the gaps with novel information pertaining to coach effectiveness. Another avenue could be to bring coach education programs into the coach's specific contexts by observing and providing feedback to the coaches. Catering to these coaches' preferences, coach education programs need to explore different avenues for knowledge translation.

Strengths and Limitations

Limitations

This study was limited through addressing only the coach's perspective on this phenomenon. Further research would benefit from exploring athlete perspectives and preferences of IC in their coaches' practice. Additionally, coaches' skills were self-reported leaving room for

biased judgement of their own practice as well as providing socially desirable answers. Finally, convenience sampling offered a chance that participants will be those who have had a positive experience with the content of the research. The experiences and perceptions of participants interviewed for this study may be positively skewed in reporting effective coaching practices. However, participants' experiences of their own self-determined ineffective practices and ineffective practices of others were discussed.

Strengths

This study was able to understand the phenomenon of IC from the coach's perspective. In employing a method open to exploration, this study provided a better understanding of external factors that influence coaches, their practices and the process of IC in minor hockey; such factors were beyond the originally anticipated scope of the project, yet emerged as critical to understanding coaches' experiences of IC. Additionally in learning from active minor hockey coaches, practice helped to inform research. Attempting to bridge the gap between research and application, this study was successful in translating knowledge from a practical setting to an empirical form.

Future Directions

The findings from this study open diverse avenues of research in youth sport. From the individual level, research can continue to explore successful methods to execute coach development programs. For example, findings from the individual level of analysis suggested that it would be beneficial to test the effectiveness of a mentoring program. Looking into what disciplinary practices are developmentally appropriate for youth athletes would alleviate the challenges found in the interaction level of the results. Further, asking athletes for their

perspectives on effective communication of coaches would provide a better understanding of interactions between coach and athlete. For the context of minor hockey, examining the culture along with external influences on coaching (e.g., permissive parents, expectations or stigmas that are unsupportive of development) would provide evidence for potential interventions to enhance the experience of minor hockey. Finally, assessing how to implement a system at the structural level for all minor hockey stakeholders to support athlete development would benefit the minor hockey system. In order to manage organizational change successfully, it is important to pursue a "comprehensive change" by making systematic changes to all systems within an organization (Fernandez & Rainey, 2017). Aligning all minor hockey stakeholders to support the organization would benefit the minor hockey program and participants. Being unaware of others' roles leads to a lack of communication (Cunningham & Eys, 2007); clarifying roles between stakeholders would create increased opportunities for respect and understanding to flourish.

Youth sport researchers may look to the COM-B framework (Michie, Atkins & Gainforth, 2014) in order to implement a cohesive system between youth sport stakeholders that supports PYD. The COM-B framework is used to understand behaviours and how to implement change in behaviours. The behaviour change wheel (see Appendix E) addresses constraints on behaviour and provides different policies that may be implemented to alleviate such constraints. This framework has been used in health psychology (Michie, Atkins & Gainforth, 2014) and has started to appear in youth sport research when addressing coach development programs (Allan, Vierimaa, Gainforth & Côté, 2018). The framework concentrates on three aspects of behaviour (capacity, opportunity and motivation), which are supported through the policy interventions of the behaviour change wheel. In hypothesizing the roles of youth sport stakeholders, coaches

could support the opportunity, parents could support the motivation, while organizations could support the capacity of PYD within the structure of youth sports. Further, youth sport researchers' role could be to help design a system-wide behaviour change intervention in minor hockey that would create policies and align all stakeholders with their role in the system to support PYD.

Conclusion

The purpose of this study was to explore youth sport coaches' experiences with IC. Results provided clearer understanding of the practice of IC by contemporary minor hockey coaches, along with description of the broader context in which this coaching practice is taking place. Based on the narratives of these 10 youth hockey coaches, this study found that these coaches were intrinsically motivated to fulfill their role as a coach. With an understanding of the role they hold, these coaches are inherently using IC in their practice despite the added responsibilities imposed by the context of minor hockey that are distracting them from fulfilling their role of athlete development. Further, the organizations of minor hockey are constraining coaches from focusing on athlete development by reinforcing a culture that puts emphasis on competitive outcomes. The findings of this study led to implications for various youth sport stakeholders to support PYD through sport. Minor hockey organizations need to support the coach's role by providing the opportunity to focus on athlete development. Coach education programs need to develop effective method for instruction that will enhance coaches' abilities to interact with their athletes. With future research needed to connect all youth sport stakeholders through implementing a systematic plan for promoting PYD through sport.

APPENDICES

APPENDIX A:

Interview Guide

(A) <u>Role of a Coach</u> ***approx. 5-10 mins****

1. What is your perception of the role of a coach?

2. What is a coach's role in understanding their athletes?

(B) <u>Assessing Athlete Needs</u> ***approx. 20-25 mins****

3. How do you communicate with your athletes?

- What do you communicate with your athletes about?

4. What information do you think is helpful for a coach to consider about their athletes?

5. How do you gather information about your athletes to assess their needs? As a group or individually?

- What qualities of an athlete do you consider when thinking about their development? (i.e., physical, intellectual, emotional, social)
- What interactions do you watch (ie. parents, peers, opponents)? How do you interact with others to understand your athletes?
- How do you technically assess athletes?
- What information do you use to decide on positioning and strengths?

6. What influence do your athletes have on your coaching practice?

- What do you do to understand the perspective of your athletes?

7. How do you adapt your practice with assessing the needs of the individual athletes you work with?

- Can you explain a time when you assessed the needs of an athlete and you were wrong? What happened? How did you correct this moment (if you did)?
- Can you explain a time when you thought about what the athlete needed and you were right? How did the athlete respond? Did this extend to their performance? How was your relationship impacted?

8. What does individualized consideration of athletes mean to you? (i.e., feedback, building relationships, communication, technical instruction, etc.)

(C) <u>Coach Needs Assessment</u> ***approx. 15 mins***

9. What information about your athletes is easy for your to see/understand? (ie. skill, impulsivity, dedication, attachment etc)

- How have/do your own experiences influence your ability to consider the needs your athletes?

10. When is it challenging to consider each individual athlete's needs?

- Why is this difficult for you? What is impeding your ability/motivation?
-

(D) <u>Open to Change</u> ***approx. 5-10 mins***

11. How would you reflect on or adapt your coaching practice based on this information?

- Would you want training to enhance the flexibility of your practice?

****Interviews will be approximately 45 - 60 minutes in length****

APPENDIX B:

Participant Questionnaire Package

Demographics

Coaching Experiences

Why did you become a coach? (OA)

Were you an athlete of the sport you are currently coaching? (Y/N)

If yes, how do you think this contributed to your motivation to be a coach?

How long have you been coaching for? (MC)

Describe any memorable coaching experiences you have had in the past? (OA)

Do you have formal coach education? (Y/N)

If so, for what? (OA)

Who ran them? (MC)

What is your coaching philosophy? (OA)

Can you describe the coaching environment that you are currently in? (OA)

Provide cues… ie athletes or environment or culture (OA)

What competitive level are you currently coaching? (MC)

How do you feel about continuing to coach? (OA)

Skills

How would you rate your ability to communicate with your athletes? (Scale)

How would you rate your organization of your athletes? (Scale)

How would you rate your preparation of your practices? (Scale)

How would you rate your preparation for your games? (Scale)

Training

What training have you been through that has helped you attend to the individual needs of your athletes? (OA)

What type of training/education would help you to assess your athlete's individual needs? (MC)

What resources would you need to feel supported/prepared to handle this responsibility? (ie. more personnel, personal development coach, organization supported training, certificate program) (OA)

What information about assessing athlete needs would you want to have more information about? (MC)

What information do you think would support your coaching practice? (OA)

What research on children or athletes would you like to know more about? (ie. development, individual differences etc.) (MC)

Individual Demographics

Where are you coaching? (city, state, country) (OA)

How old are you? (MC)

What is your gender? (MC)

What is the highest level of education reached? (MC)

Do you have your own children? (MC)

Do they participate in youth sports? (MC)

ICCS

		Almost Never	Seldom	Some-times	Often	Almost Always
1.	I allow athletes to see who I really am	1	2	3	4	5
2.	My athletes know what I'm thinking	1	2	3	4	5
3.	I reveal how I feel to my athletes	1	2	3	4	5
4.	I can put myself in my athlete's shoes	1	2	3	4	5
5.	I don't know exactly what my athletes are feeling	1	2	3	4	5
6.	My athletes think that I understand them	1	2	3	4	5
7.	I am comfortable in social situations	1	2	3	4	5
8.	I feel relaxed in small group gatherings	1	2	3	4	5
9.	I feel insecure in groups of strangers	1	2	3	4	5
10.	When I've been wronged, I confront the person who wronged me	1	2	3	4	5
11.	I have trouble standing up for myself	1	2	3	4	5
12.	I stand up for my rights	1	2	3	4	5
13.	My conversations are pretty one-sided	1	2	3	4	5
14.	I let my athletes know that I understand what they say	1	2	3	4	5
15.	My mind wanders during conversations	1	2	3	4	5
16.	My conversations are characterized by smooth shifts from one topic to the next	1	2	3	4	5
17.	I take charge of conversations I'm in by negotiating what topics we talk about	1	2	3	4	5
18.	In conversations with my athletes, I perceive not only what they say but what they don't say	1	2	3	4	5
19.	My athletes can tell when I'm happy or sad	1	2	3	4	5
20.	It's difficult to find the right words to express myself	1	2	3	4	5
21.	I express myself well verbally	1	2	3	4	5
22.	My communication is usually descriptive, not evaluative	1	2	3	4	5

TEIQue-SF

		Completely Disagree						Completely Agree
1.	Expressing my emotions with words is not a problem for me	1	2	3	4	5	6	7
2.	I often find it difficult to see things from another person's viewpoint	1	2	3	4	5	6	7
3.	On the whole, I'm a highly motivated person	1	2	3	4	5	6	7
4.	I usually find it difficult to regulate my emotions	1	2	3	4	5	6	7
5.	I generally don't find life enjoyable	1	2	3	4	5	6	7
6.	I can deal effectively with people	1	2	3	4	5	6	7
7.	I tend to change my mind frequently	1	2	3	4	5	6	7
8.	Many times, I can't figure out what emotion I'm feeling	1	2	3	4	5	6	7
9.	I feel that I have a number of good qualities	1	2	3	4	5	6	7
10.	I often find it difficult to stand up for my rights	1	2	3	4	5	6	7
11.	I'm usually able to influence the way other people feel	1	2	3	4	5	6	7
12.	On the whole, I have a gloomy perspective on most things	1	2	3	4	5	6	7
13.	Those close to me often complain that I don't treat them right	1	2	3	4	5	6	7
14.	I often find it difficult to adjust my life according to the circumstances	1	2	3	4	5	6	7
15.	On the whole, I am able to deal with stress	1	2	3	4	5	6	7
16.	I often find it difficult to show my affection to those close to me	1	2	3	4	5	6	7
17.	I'm normally able to "get into someone's shoes" and experience their emotions	1	2	3	4	5	6	7
18.	I normally find it difficult to keep myself motivated	1	2	3	4	5	6	7
19.	I'm usually able to find ways to control my emotions when I want to	1	2	3	4	5	6	7
20.	On the whole, I am pleased with my life	1	2	3	4	5	6	7
21.	I would describe myself as a good negotiator	1	2	3	4	5	6	7
22.	I tend to get involved in things I later wish I could get out of	1	2	3	4	5	6	7
23.	I often pause and think about my feelings	1	2	3	4	5	6	7
24.	I believe I'm full of personal strengths	1	2	3	4	5	6	7

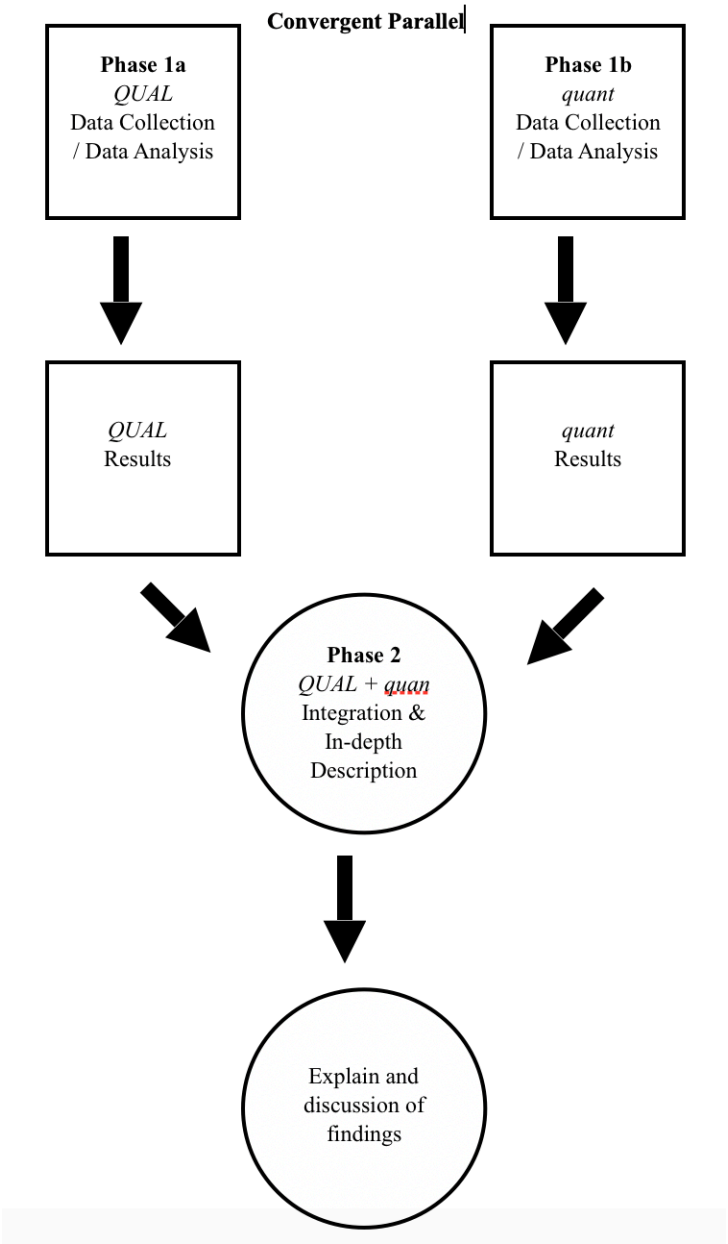
25.	I tend to "back down" even if I know I'm right	1	2	3	4	5	6	7
26.	I don't seem to have any power at all over other people's feelings	1	2	3	4	5	6	7
27.	I generally believe that things will work out fine in my life	1	2	3	4	5	6	7
28.	I find it difficult to bond well even with those close to me	1	2	3	4	5	6	7
29.	Generally, I am able to adapt to new environments	1	2	3	4	5	6	7
30.	Other admire me for being relaxed	1	2	3	4	5	6	7

DTLI-YS: IC sub scale

		Not at all	**Once in a while**	**Some-times**	**Fairly often**	**All of the time**
1	Treat each athlete as an individual	1	2	3	4	5
2	Help athletes to develop their strengths	1	2	3	4	5
3	Consider that athletes have different strengths and abilities from others	1	2	3	4	5
4	Recognise that different athletes have different needs	1	2	3	4	5

APPENDIX C:

Mixed-Methods Research Design



APPENDIX D:

Bronfenbrenner's Ecological Theory of Human Development

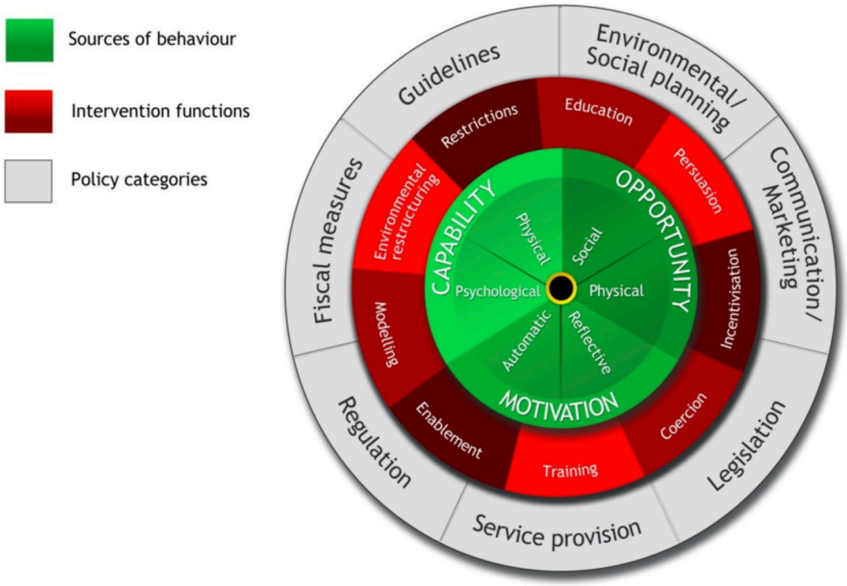
In the context of this study, the first four levels have been considered when examining results. The Individual level relates to the coach, the Interpersonal level relates to the coach-athlete dyad interaction, the Community level relates to the context of minor hockey including interactions with parents and other minor hockey coaches, and the Organizational level relates to the structure of minor hockey. The Policy level was not considered in the results yet relate to future implications of this study.

APPENDIX E:

The Behaviour Change Wheel: A COM-B Framework

"The Behaviour Change Wheel (BCW) consists of three layers (Figure 1). The hub of the wheel identifies the sources of the behaviour that could prove fruitful targets for intervention. It uses the COM-B model for this. The COM-B model provides a simple framework for understanding behaviour, in which 'capability' (physical and psychological), 'opportunity' (physical and social) and 'motivation' (automatic and reflective) are conceptualised as three essential conditions for behaviour (Michie et al., 2011). Surrounding the COM-B model is a layer of nine intervention functions to choose from that can be used to address deficits in one or more of capability, opportunity or motivation. Then the outer layer, the rim of the wheel, identifies seven types of policy that one can use to deliver the intervention functions." (Michie, Atkins & Gainforth, 2014)

Figure 1. The Behaviour Change Wheel



APPENDIX F:

Thematic Levels and Categories - Full Results Table

Thematic Levels and Categories - Full Results Table

Thematic Levels	Categories
Individual Level	• Role of a Coach • Personal Influence on Motivation to Coach • Learning as a Coach • Skills • Challenges as a Coach
Interaction Level	• Team Climate • Development of Athletes • Individualized Consideration (IC) • Communication • Challenges with Coaching
Context Level	• Parents • Ineffective Coaches • Challenges outside of Coach-Athlete Dyad
Structure Level	• Coach Education • Minor Hockey Culture • Challenges with Minor Hockey • Coach Needs

REFERENCES

REFERENCES

A BRIGHTER FUTURE FOR ALL. (n.d.). Retrieved from https://cdn4.sportngin.com/attachments/document/0042/7978/ADM_Newspaper.pdf?_ga=2.64626022.833127191.1564775082-1780386624.1564775082

Albrecht, R. (2009). Drop and give us 20, Seifried: A practical response to "Defending the Use of Punishment by Coaches". *Quest*, *61*(4), 470-475.

Allan, V., Vierimaa, M., Gainforth, H. L., & Côté, J. (2018). The use of behaviour change theories and techniques in research-informed coach development programmes: a systematic review. *International Review of Sport and Exercise Psychology*, *11*(1), 47-69.

Allen, J. B., & Shaw, S. (2009). Women coaches' perceptions of their sport organizations' social environment: supporting coaches' psychological needs?. *The Sport Psychologist*, *23*(3), 346-366.

Amann, D. G. (2014). *Transformational Leadership Meets Follower Motives: Compatibility of Dimensions of Transformational Leadership and Follower Motives Determines Work-Related Outcomes* (Doctoral dissertation, Technical University of Munich).

Arnold, K. A., Turner, N., Barling, J., Kelloway, E. K., & McKee, M. C. (2007). Transformational leadership and psychological well-being: the mediating role of meaningful work. *Journal of occupational health psychology*, *12*(3), 193.

Arthur-Banning, S., Wells, M. S., Baker, B. L., & Hegreness, R. (2009). Parents behaving badly? The relationship between the sportsmanship behaviors of adults and athletes in youth basketball games. *Journal of Sport Behavior*, *32*(1).

Avolio, B. J., Waldman, D. A., & Yammarino, F. J. (1991). Leading in the 1990s: The four I′ s of transformational leadership. *Journal of European industrial training*, *15*(4).

Baker, J., Cobley, S., Montelpare, W. J., Wattie, N., & Faught, B. E. (2010). Exploring proposed mechanisms of the relative age effect in Canadian minor hockey. *International Journal of Sport Psychology*, *41*(2), 148-159.

Bartlett, J. D., O'Connor, F., Pitchford, N., Torres-Ronda, L., & Robertson, S. J. (2017). Relationships between internal and external training load in team-sport athletes: evidence for an individualized approach. *International journal of sports physiology and performance*, *12*(2), 230-234.

Barnard, A., McCosker, H., & Gerber, R. (1999). Phenomenography: a qualitative research approach for exploring understanding in health care. *Qualitative health research*, *9*(2), 212-226.

Battaglia, A. V., Kerr, G., & Stirling, A. E. (2017). Youth athletes' interpretations of punitive coaching practices. *Journal of Applied Sport Psychology*, *29*(3), 337-352.

Battaglia, A., Kerr, G., & Stirling, A. (2018). Examining the influence of athletes' punishment experiences on decisions to cease participation in competitive hockey. *International Journal of Sport and Exercise Psychology*, 1-15.

Bean, C., Fortier, M., Post, C., & Chima, K. (2014). Understanding how organized youth sport may be harming individual players within the family unit: A literature review. *International journal of environmental research and public health*, *11*(10), 10226-10268.

Bean, C. N., Jeffery-Tosoni, S., Baker, J., & Fraser-Thomas, J. (2016). Negative parental behaviour in Canadian youth hockey: Expert insiders' perceptions and recommendations. *Revue phénEPS/PHEnex Journal*, *7*(3).

Becker, A. J. (2009). It's not what they do, it's how they do it: Athlete experiences of great coaching. *International Journal of Sports Science & Coaching*, *4*(1), 93-119.

Bennie, A., Apoifis, N., Caron, J., Falcão, W., Marlin, D., Bengoechea, E. G., ... & George, E. (2017). A guide to conducting systematic reviews of coaching science research. *International sport coaching journal*, *4*(2), 191-205.

Bergin, C., & Bergin, D. (2009). Attachment in the classroom. *Educational psychology review*, *21*(2), 141-170.

Bronfenbrenner, U., & Vasta, R. (1989). Six theories of child development.

Brunet, J., Love, C., Ramphal, R., & Sabiston, C. M. (2014). Stress and physical activity in young adults treated for cancer: the moderating role of social support. *Supportive Care in Cancer*, *22*(3), 689-695.

Calkins, S. D., & Dollar, J. M. (2014). Emotion: Commentary: A Biopsychosocial Perspective on Maternal Psychopathology and the Development of Child Emotion Regulation. *Journal of personality disorders*, *28*(1), 70-77.

Callow, N., Smith, M. J., Hardy, L., Arthur, C. A., & Hardy, J. (2009). Measurement of transformational leadership and its relationship with team cohesion and performance level. *Journal of Applied Sport Psychology*, *21*(4), 395-412.

Camiré, M., Forneris, T., Trudel, P., & Bernard, D. (2011). Strategies for helping coaches facilitate positive youth development through sport. *Journal of sport psychology in action*, *2*(2), 92-99.

Chan, D. K., Lonsdale, C., & Fung, H. H. (2012). Influences of coaches, parents, and peers on the motivational patterns of child and adolescent athletes. *Scandinavian journal of medicine & science in sports*, *22*(4), 558-568.

Charbonneau, D., Barling, J., & Kelloway, E. K. (2001). Transformational Leadership and Sports Performance: The Mediating Role of Intrinsic Motivation 1. *Journal of applied social psychology*, *31*(7), 1521-1534.

Chelladurai, P. (2007). Leadership in sports. *Handbook of sport psychology*, *3*, 113-135.

Coan, J. A. (2010). Adult attachment and the brain. *Journal of Social and Personal Relationships*, *27*(2), 210-217.

Côté, J. (2006). The development of coaching knowledge. *International journal of sports science & coaching*, *1*(3), 217-222.

Côté, J., & Gilbert, W. (2009). An integrative definition of coaching effectiveness and expertise. *International journal of sports science & coaching*, *4*(3), 307-323.

Creswell, J. W. (2015). *A Concise Introduction to Mixed Methods Research*. Thousand Oaks, CA, SAGE.

Creswell, J. W., & Plano Clark, V. L. (2011). Choosing a mixed methods design. *Designing and conducting mixed methods research*, 53-106.

Crocker, P. R. E., Hoar, S. D., McDonough, M. H., Kowalski, K. C., & Niefer, C. B. (2004). Emotional experience in youth sport. In M. R. Weiss (Ed.), *Developmental Sport and Exercise Psychology: A Lifespan Perspective* (pp. 223-268). Morgantown, WV: Fitness Information Technology.

Crocker, P. R., Tamminen, K. A., & Bennett, E. V. (2017). Stress, emotions, and coping in youth sport. *Sport Psychology for Young Athletes*, 164.

Cunningham, I. J., & Eys, M. A. (2007). Role Ambiguity and intra−team communication in interdependent sport teams. *Journal of Applied Social Psychology*, *37*(10), 2220-2237.

Cusimano, M. D., Chipman, M. L., Volpe, R., & Donnelly, P. (2009). Canadian minor hockey participants' knowledge about concussion. *Canadian journal of neurological sciences*, *36*(3), 315-320.

Cusimano, M. D., Ilie, G., Mullen, S. J., Pauley, C. R., Stulberg, J. R., Topolovec-Vranic, J., & Zhang, S. (2016). Aggression, violence and injury in minor league ice hockey: avenues for prevention of injury. *PloS one*, *11*(6), e0156683.

Davis, P. A., & Davis, L. (2016). Emotions and emotion regulation in coaching. *The psychology of effective coaching and management. New York, NY: Nova Science Publishers Inc*.

Davis, L., & Jowett, S. (2014). Coach–athlete attachment and the quality of the coach–athlete relationship: implications for athlete's well-being. *Journal of sports sciences*, *32*(15), 1454-1464.

Dewey, J. (1931). George Herbert Mead. *The Journal of Philosophy*, *28*(12), 309-314.

Dvir, T., Eden, D., Avolio, B. J., & Shamir, B. (2002). Impact of transformational leadership on follower development and performance: A field experiment. *Academy of management journal*, *45*(4), 735-744.

Feltz, D. L., Chase, M. A., Moritz, S. E., & Sullivan, P. J. (1999). A conceptual model of coaching efficacy: Preliminary investigation and instrument development. *Journal of educational psychology*, *91*(4), 765.

Fernandez, S., & Rainey, H. G. (2017). Managing successful organizational change in the public sector. In *Debating Public Administration* (pp. 7-26). Routledge.

Flum, H., & Kaplan, A. (2012). Identity formation in educational settings: A contextualized view of theory and research in practice. *Contemporary Educational Psychology*, *37*(3), 240-245.

Fraser-Thomas, J. L., Côté, J., & Deakin, J. (2005). Youth sport programs: An avenue to foster positive youth development. *Physical Education & Sport Pedagogy*, *10*(1), 19-40.

Freudenthaler, H. H., Neubauer, A. C., Gabler, P., Scherl, W. G., & Rindermann, H. (2008). Testing and validating the trait emotional intelligence questionnaire (TEIQue) in a German-speaking sample. *Personality and Individual Differences*, *45*(7), 673-678.

Fry, M. D., & Gano-Overway, L. A. (2010). Exploring the contribution of the caring climate to the youth sport experience. *Journal of applied sport psychology*, *22*(3), 294-304.

Giacobbi Jr, P. R., Poczwardowski, A., & Hager, P. (2005). A pragmatic research philosophy for sport and exercise psychology. *The sport psychologist*, *19*(1), 18-31.

Giges, B., Petitpas, A. J., & Vernacchia, R. A. (2004). Helping coaches meet their own needs: Challenges for the sport psychology consultant. *The Sport Psychologist*, *18*(4), 430-444.

Gilbert, W. D., & Trudel, P. (2004). Role of the coach: How model youth team sport coaches frame their roles. *The sport psychologist*, *18*(1), 21-43.

Gould, D. (2016). Quality coaching counts. *Phi Delta Kappan*, *97*(8), 13-18.

Gould, D., Dieffenbach, K., & Moffett, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of applied sport psychology*, *14*(3), 172-204.

Gould, D., & Carson, S. (2010). The relationship between perceived coaching behaviors and developmental benefits of high school sports participation. *Hellenic journal of psychology*, *7*(1).

Greene, J. C. (2007). *Mixed methods in social inquiry* (Vol. 9). John Wiley & Sons.

Hald, S. V., Baker, F. A., & Ridder, H. M. O. (2015). A preliminary psychometric evaluation of the interpersonal communication competence scale for aquired brain injury. *Brain injury*, *29*(9), 1105-1112.

Haselwood, D. M., Joyner, A. B., Burke, K. L., & Geyerman, C. B. (2005). Female athletes' perceptions of head coaches' communication competence. *Journal of Sport Behavior*, *28*(3), 216.

Hastings, R. P. (2003). Behavioral adjustment of siblings of children with autism engaged in applied behavior analysis early intervention programs: The moderating role of social support. *Journal of autism and developmental disorders*, *33*(2), 141-150.

Hautala, T. M. (2006). The relationship between personality and transformational leadership. *Journal of Management Development, (25)8,* 777-794.

Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., ... & Tamminen, K. A. (2017). A grounded theory of positive youth development through sport based on results from a qualitative meta-study. *International review of sport and exercise psychology*, *10*(1), 1-49.

Holt, N. L., & Tamminen, K. A. (2010). Moving forward with grounded theory in sport and exercise psychology. *Psychology of sport and exercise*, *11*(6), 419-422.

Hoption, C., Phelan, J., & Barling, J. (2014). Transformational Leadership in Sport. In M. R. Beauchamp & M. A. Eys (Ed.), *Group Dynamics in Exercise and Sport Psychology* (pp. 55-72). New York, NY: Routledge.

Horn, T. S. (2004). Developmental Perspectives on Self-Perceptions in Children and Adolescents. In M. R. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp. 101-143). Morgantown, WV, US: Fitness Information Technology.

Horn, T. S. (2008). Coaching effectiveness in the sport domain. In T. S. Horn (Ed.), *Advances in sport psychology* (pp. 239-267,455-459). Champaign, IL, US: Human Kinetics.

Hwang, S., Feltz, D. L., & Lee, J. D. (2013). Emotional intelligence in coaching: Mediation effect of coaching efficacy on the relationship between emotional intelligence and leadership style. *International Journal of Sport and Exercise Psychology*, *11*(3), 292-306.

Jacobs, S. E., & Gross, J. J. (2014). Emotion regulation in education. *International handbook of emotions in education*, 183-217.

James, W. (1907). A new name for some old ways of thinking. *Pragmatism and Other Writings (New York: Penguin, 2000)*, *25*.

Jones, M. I., Dunn, J. G. H., Holt, N. L., Sullivan, P. J., & Bloom, G. A. (2011). Exploring the '5Cs' of positive youth development in sport. *Journal of Sport Behavior*, *34*(3), 250-267.

Jowett, S. (2017). Coaching effectiveness: the coach–athlete relationship at its heart. *Current Opinion in Psychology*, *16*, 154-158.

Jowett, S., & Ntoumanis, N. (2004). The coach–athlete relationship questionnaire (CART−Q): Development and initial validation. *Scandinavian journal of medicine & science in sports*, *14*(4), 245-257.

Kerr, G. A., & Stirling, A. E. (2008). Child protection in sport: Implications of an athlete-centered philosophy. *Quest*, *60*(2), 307-323.

Kipp, L. E. (2018). Developmental considerations for working with young athletes. In C. J. Knight, C. G. Harwood, & D. Gould, *Sport Psychology for Young Athletes* (164-173). New York: Routledge.

Knight, C. J., & Harwood, C. G. (2009). Exploring parent-related coaching stressors in British tennis: A developmental investigation. *International Journal of Sports Science & Coaching*, *4*(4), 545-565.

Knowles, Z., Borrie, A., & Telfer, H. (2005). Towards the reflective sports coach: Issues of context, education and application. *Ergonomics*, *48*(11-14), 1711-1720.

Knowles, Z., Gilbourne, D., Borrie, A., & Nevill, A. (2001). Developing the reflective sports coach: A study exploring the processes of reflective practice within a higher education coaching programme. *Reflective practice*, *2*(2), 185-207.

Krishnan, V. R. (2012). Transformational leadership and personal outcomes: empowerment as mediator. *Leadership & Organization Development Journal*, *33*(6), 550-563.

Larson, R. W. (2011). Positive development in a disorderly world. *Journal of Research on Adolescence*, *21*(2), 317-334.

Larson, R., Walker, K., & Pearce, N. (2005). A comparison of youth−driven and adult−driven youth programs: balancing inputs from youth and adults. *Journal of community psychology*, *33*(1), 57-74.

LaVoi, N. M., & Dutove, J. K. (2012). Barriers and supports for female coaches: An ecological model. *Sports Coaching Review*, *1*(1), 17-37.

Lerner, R. M. (2005, September). Promoting positive youth development: Theoretical and empirical bases. In *White paper prepared for the workshop on the science of adolescent health and development, national research council/institute of medicine. Washington, DC: National Academies of Science*.

Lefebvre, J. S., Evans, M. B., Turnnidge, J., Gainforth, H. L., & Côté, J. (2016). Describing and classifying coach development programmes: A synthesis of empirical research and applied practice. *International Journal of Sports Science & Coaching, 11*(6), 887-899.

Lefebvre, J. S., Turnnidge, J., & Côté, J. (2019). A Systematic Observation of Coach Leadership Behaviors in Youth Sport. *Journal of Applied Sport Psychology*, 1-10.

Magyar, T. M., Guivernau, M. R., Gano-Overway, L. A., Newton, M., Kim, M. S., Watson, D. L., & Fry, M. D. (2007). The influence of leader efficacy and emotional intelligence on personal caring in physical activity. *Journal of Teaching in Physical Education*, *26*(3), 310-319.

Mallett, C. J., Trudel, P., Lyle, J., & Rynne, S. B. (2009). Formal vs. informal coach education. *International Journal of Sports Science & Coaching*, *4*(3), 325-364.

Mandate & Mission - Who is Hockey Canada?. (n.d.). Retrieved from https://www.hockeycanada.ca/en-ca/corporate/about/mandate-mission

Martens, R. (1987). *Coaches guide to sport psychology: A publication for the American Coaching Effectiveness Program: Level 2 sport science curriculum*. Human Kinetics Books.

Marton, F. (1981). Phenomenography—describing conceptions of the world around us. *Instructional science*, *10*(2), 177-200.

Marton, F. (1986). Phenomenography—a research approach to investigating different understandings of reality. *Journal of thought*, 28-49.

Mayer, J. D., Salovey, P., & Caruso, D. R. (2008). Emotional intelligence: New ability or eclectic traits? *American psychologist*, *63*(6), 503.

McLean, K. N., & Mallett, C. J. (2012). What motivates the motivators? An examination of sports coaches. *Physical Education & Sport Pedagogy*, *17*(1), 21-35.

McSpadden, K. E., Patrick, H., Oh, A. Y., Yaroch, A. L., Dwyer, L. A., & Nebeling, L. C. (2016). The association between motivation and fruit and vegetable intake: The moderating role of social support. *Appetite*, *96*, 87-94.

Merkel, D. L. (2013). Youth sport: positive and negative impact on young athletes. *Open access journal of sports medicine*, *4*, 151.

Michie, S., Atkins, L., & West, R. (2014). The behaviour change wheel. *A guide to designing interventions. 1st ed. Great Britain: Silverback Publishing*, 1003-1010.

Mikolajczak, M., Luminet, O., Leroy, C., & Roy, E. (2007). Psychometric properties of the Trait Emotional Intelligence Questionnaire: Factor structure, reliability, construct, and incremental validity in a French-speaking population. *Journal of personality assessment*, *88*(3), 338-353.

Mills, A., Butt, J., Maynard, I., & Harwood, C. (2012). Identifying factors perceived to influence the development of elite youth football academy players. *Journal of sports sciences*, *30*(15), 1593-1604.

Moen, F., & Kvalsund, R. (2013). Subjective beliefs among sport coaches about communication during coach-athlete conversations. *Athletic Insight*, *5*(3), 229.

Morgan, D. L. (2015). Pragmatism as a paradigm for social research. *Qualitative Inquiry*, *20*(8), 1045-1053.

Mrazik, M., Perra, A., Brooks, B. L., & Naidu, D. (2015). Exploring minor hockey players' knowledge and attitudes toward concussion: implications for prevention. *The Journal of head trauma rehabilitation*, *30*(3), 219-227.

Mueller, S., Ruiz, M. C., & Chroni, S. A. (2018). Coaches' Perceptions of Athletes' Psychobiosocial States: The Case of Three Tennis Coach-Athlete Dyads. *International Sport Coaching Journal,* 20 (XX), 1-13.

Nalepa, J. (2018). *Drop Shots or Dropouts? An Investigation of Modified 10 and Under Tennis and the Transition to Traditional Tennis* (Doctoral dissertation, Michigan State University).

Nelson, L., Cushion, C., & Potrac, P. (2013). Enhancing the provision of coach education: the recommendations of UK coaching practitioners. *Physical Education and Sport Pedagogy*, *18*(2), 204-218.

Nitsch, J. R. (2009). Ecological approaches to sport activity: A commentary from an action-theoretical point of view. *International Journal of Sport Psychology*, *40*(1), 152.

Noguera, P., Darling-Hammond, L., & Friedlaender, D. (2015). Equal Opportunity for Deeper Learning. Deeper Learning Research Series. *Jobs for the Future*.

O'Cathain, A., Murphy, E., & Nicholl, J. (2008). The quality of mixed methods studies in health services research. *Journal of Health Services Research & Policy*, *13*(2), 92-98.

Occhino, J. L., Mallett, C. J., Rynne, S. B., & Carlisle, K. N. (2014). Autonomy-supportive pedagogical approach to sports coaching: Research, challenges and opportunities. *International Journal of Sports Science & Coaching*, *9*(2), 401-415.

Paquette, K., & Trudel, P. (2016). Learner-centered teaching: A consideration for revitalizing coach education. *The psychology of effective coaching and management*, 53-70.

Parcells, B., & Coplon, J. (1995). *Finding a way to win: The principles of leadership, teamwork, and motivation.* New York: Doubleday.

Patton, M. Q. (2015). *Qualitative Research & Evaluation Methods, 4th edition*. Thousand Oaks, CA, SAGE.

Pierce, S., Gould, D., & Camiré, M. (2017). Definition and model of life skills transfer. *International Review of Sport and Exercise Psychology*, *10*(1), 186-211.

Perreault, D., Mask, L., Morgan, M., & Blanchard, C. M. (2014). Internalizing emotions: Self-determination as an antecedent of emotional intelligence. *Personality and Individual Differences*, *64*, 1-6.

Petrides, K. V. (2009). Psychometric properties of the trait emotional intelligence questionnaire (TEIQue). In *Assessing emotional intelligence* (pp. 85-101). Springer, Boston, MA.

Price, M. S., & Weiss, M. R. (2013). Relationships among coach leadership, peer leadership, and adolescent athletes' psychosocial and team outcomes: A test of transformational leadership theory. *Journal of applied sport psychology*, *25*(2), 265-279.

Quoidbach, J., Mikolajczak, M., & Gross, J. J. (2015). Positive interventions: An emotion regulation perspective. *Psychological bulletin*, *141*(3), 655.

Rathwell, S., Bloom, G. A., & Loughead, T. M. (2014). Head coaches' perceptions on the roles, selection, and development of the assistant coach. *International Sport Coaching Journal*, *1*(1), 5-16.

Rhind, D. J., & Jowett, S. (2010). Relationship maintenance strategies in the coach-athlete relationship: The development of the COMPASS model. *Journal of applied sport psychology*, *22*(1), 106-121.

Richardson, J. T. (1999). The concepts and methods of phenomenographic research. *Review of educational research*, *69*(1), 53-82.

Rolls, L., & Relf, M. (2006). Bracketing interviews: Addressing methodological challenges in qualitative interviewing in bereavement and palliative care. *Mortality*, *11*(3), 286-305.

Rorty, R. (1990). Truth and freedom: A reply to Thomas McCarthy. *Critical Inquiry*, *16*(3), 633-643.

Rosete, D., & Ciarrochi, J. (2005). Emotional intelligence and its relationship to workplace performance outcomes of leadership effectiveness. *Leadership & Organization Development Journal*, *26*(5), 388-399.

Rubin, R. B., Martin, M. M., Bruning, S. S., & Powers, D. E. (1993). Test of a self−efficacy model of interpersonal communication competence. *Communication quarterly*, *41*(2), 210-220.

Rundle−Thiele, S., & Auld, C. (2009). Should I stay or should I go? Retention of junior sport coaches. *Annals of Leisure Research*, *12*(1), 1-21.

Sagar, S. S., & Jowett, S. (2012). Communicative acts in coach–athlete interactions: When losing competitions and when making mistakes in training. *Western Journal of Communication*, *76*(2), 148-174.

Sargent, L. D., & Terry, D. J. (2000). The moderating role of social support in Karasek's job strain model. *Work & Stress*, *14*(3), 245-261.

Skaff, L. F., Kemp, J. N., Sternesky McGovern, L. A., & Fantacone, J. M. (2016). Educator and parent views of the effectiveness of individualized learning plans for students with disabilities. *Career Development and Transition for Exceptional Individuals*, *39*(2), 68-78.

Smith, B., & McGannon, K. R. (2018). Developing rigor in qualitative research: Problems and opportunities within sport and exercise psychology. *International review of sport and exercise psychology*, *11*(1), 101-121.

Smith, A. L., Dorsch, T. E., & Monsma, E. V. (2012). Developmentally informed measurement in sport and exercise psychology research.

Smith, L. B., & Thelen, E. (2003). Development as a dynamic system. *Trends in cognitive sciences*, *7*(8), 343-348.

Smith, M. J., Young, D. J., Figgins, S. G., & Arthur, C. A. (2017). Transformational leadership in elite sport: A qualitative analysis of effective leadership behaviors in cricket. *The Sport Psychologist*, *31*(1), 1-15.

Smoll, F. L., & Smith, R. E. (2010). Conducting psychologically oriented coach-training programs: A social-cognitive approach. *Applied sport psychology: Personal growth to peak performance*, 392-416.

Solomon, G., & Lobinger, B. (2011). Sources of expectancy information among coaches: A cross cultural investigation. *Theories and Applications: The International Edition*, *1*(1), 46-57.

Strachan, L., Côté, J., & Deakin, J. (2011). A new view: Exploring positive youth development in elite sport contexts. *Qualitative research in sport, exercise and health*, *3*(1), 9-32.

Stenling, A., & Tafvelin, S. (2014). Transformational leadership and well-being in sports: The mediating role of need satisfaction. *Journal of applied sport psychology*, *26*(2), 182-196.

Stoszkowski, J., & Collins, D. (2016). Sources, topics and use of knowledge by coaches. *Journal of sports sciences*, *34*(9), 794-802.

Sullivan, P., Paquette, K. J., Holt, N. L., & Bloom, G. A. (2012). The relation of coaching context and coach education to coaching efficacy and perceived leadership behaviors in youth sport. *The sport psychologist*, *26*(1), 122-134.

Tepper, B. J., Dimotakis, N., Lambert, L. S., Koopman, J., Matta, F. K., Park, H. M., & Goo, W. (2018). Examining follower responses to transformational leadership from a dynamic, person-environment fit perspective. *Academy of Management Journal, (61) 4,* 1343-1368.

Thelwell, R. C., Lane, A. M., Weston, N. J., & Greenlees, I. A. (2008). Examining relationships between emotional intelligence and coaching efficacy. *International Journal of Sport and Exercise Psychology*, *6*(2), 224-235.

This Is USA Hockey. (n.d.). Retrieved from https://www.usahockey.com/about

Turnnidge, J., & Côté, J. (2018). Applying transformational leadership theory to coaching research in youth sport: A systematic literature review. *International Journal of Sport and Exercise Psychology*, *16*(3), 327-342.

Turnnidge, J., Côté, J., & Hancock, D. J. (2014). Positive youth development from sport to life: Explicit or implicit transfer?. *Quest*, *66*(2), 203-217.

Vella, S., Oades, L., & Crowe, T. (2011). The role of the coach in facilitating positive youth development: Moving from theory to practice. *Journal of applied sport psychology*, *23*(1), 33-48.

Vella, S. A., Oades, L. G., & Crowe, T. P. (2012). Validation of the differentiated transformational leadership inventory as a measure of coach leadership in youth soccer. *The sport psychologist*, *26*(2), 207-223.

Vella, S. A., Oades, L. G., & Crowe, T. P. (2013). The relationship between coach leadership, the coach–athlete relationship, team success, and the positive developmental experiences of adolescent soccer players. *Physical education and sport pedagogy*, *18*(5), 549-561.

Wachsmuth, S., Jowett, S., & Harwood, C. G. (2017). Conflict among athletes and their coaches: what is the theory and research so far?. *International Review of Sport and Exercise Psychology*, *10*(1), 84-107.

Watson, M., & Kleinert, J. (2018). The relationship between coaches' emotional intelligence and basic need satisfaction in athletes. *Sports Coaching Review*, 1-19.

Weinberg, R. S., & Gould, D. (2010). Foundations of Sport and Exercise Psychology, 5E. Human Kinetics.

Weiss, M. R., Smith, A. L., & Stuntz, C. P. (2008). Moral development in sport and physical activity: Theory, research, and intervention. In M. R. Weiss (Ed.), *Developmental Sport and Exercise Psychology: A Lifespan Perspective* (pp. 223-268). Morgantown, WV: Fitness Information Technology.

Weiss, M. R., & Williams, L. (2004). The *why* of youth sport involvement: A developmental perspective on motivational processes. In M. R. Weiss (Ed.), *Developmental Sport and Exercise Psychology: A Lifespan Perspective* (pp. 223-268). Morgantown, WV: Fitness Information Technology.

Yates, C., Partridge, H. L., & Bruce, C. S. (2012). Exploring information experiences through phenomenography. *Library and Information Research*, *36*(112), 96-119.

Yohalem, N., & Wilson-Ahlstrom, A. (2010). Inside the black box: Assessing and improving quality in youth programs. *American journal of community psychology*, *45*(3-4), 350-357.