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# Understanding Talent Retention within a Sport System

*Exploring the Elite Youth Hockey Development  
System in Alberta, Canada*

Jonathon Edwards

## Abstract

The study examines the regulations and strategies implemented by management of club hockey organizations and governing hockey bodies in the Edmonton region of Alberta, Canada to retain their talented youth athletes. Interviews were conducted with 13 representatives of six club hockey organizations and three governing bodies. The findings revealed that Residential Boundary regulations, Player Development, Facility Ownership, Performance Driven Outcomes, and Information Sharing comprised the system, and were used as a means of retaining youth elite athletes at key transition points. It was determined that management of club hockey organizations operate within a closed sport system, and based on this closed system, management implements regulations and strategies to effectively retain elite-level hockey players.

**Keywords:** *athlete retention, sport systems, retention regulations, retention strategies, athlete pathways, hockey*

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## Introduction

Retaining athletes is challenging for management of youth elite level of sport organizations. This is evident in Canada, as there have been declining sport participation rates (Canadian Heritage, 2013). For example, in 2010 it was reported that 7.2 million Canadians aged 15 and older participated regularly in sport, which includes all levels of competition and organized sport. While 7.2 million participants may seem like a significant number, this actually represents 17% decline over 18 years (Canadian Heritage, 2013). Some of the reasons for the challenge can be attributed to an increase in expenses for athlete development, the changing landscape of amateur sports to more a business-like approach to an organization's operations (Edwards, Mason, & Washington, 2009; Slack & Hinings, 1992), having an increased number of non-qualified coaches (Edwards & Washington, 2013), increased time commitments of both parents and athletes (Chard, Edwards, & Potwarka, 2015; Edwards & Washington, 2013), the economics of participating in sports at the elite level (Campbell & Parcels, 2013), "screen time" and technology (Policy Research Group, 2010), and sports competing with other sports for the same athletes (Green, 2005). Because of these challenges, "Organizations of all sizes and types are recognizing that they are engaged in a struggle to retain talent, and are actively trying to do something about it" (Mitchell, Holtom, Lee, & Graske, 2001, p. 97).

Sport management research discussion of athlete retention has taken on a broad perspective of retaining athletes for the purpose of the sport and program development (Green, 2005; Sotiriadou, Shilbury, & Quick, 2008). Understanding athlete retention is important as it can be applied in situations where athletes transition from house league-based (or community-based) programs to elite level programs, as this provides a stability and sustainability to the sport organization. The stability and sustainability is often contingent upon management's ability to produce competitive teams. Having competitive teams builds the reputation of the organization and can contribute to the enhancement of resources (e.g., sponsorships, memberships, and/or volunteers). Thus, understanding athlete retention within the broader context of a sport system is the rationale for this study, because it provides a conceptual framework for understanding an elite sport system at a key transition point where those athletes are making the decision on trying out for a club sport organization or remaining with house league-based organizations.

One such way to explore a sport system is to examine how management of elite youth sport organizations have developed, implemented, and evaluated the regulations and strategies that are influential in the decision-making process to train, develop, and compete at an elite level. Robbins, Coulter, and Langton (2006) defined a *system* as a "set of interrelated and interdependent parts arranged in a manner that produces a unified whole" (p. 39). Furthermore, Green (2005) explained that the objective of those actors within a sport system is to "recruit people (particularly children and adolescents) into sports and then to develop a

percentage of them (presumably those with “talent”) into high-caliber performers [retention]” (p. 234). As the quote by Green suggests, managers of sports systems concern themselves principally with two issues. The first issue is the recruiting of athletes *into* the system, and the second is the retention of athletes *within* the system. Retention occurs within each tier at the system level when an athlete moves from one tier to another. Thus, a manager’s understanding of a sport system is an important facet in providing sport services, in the form of athlete development, to the primary stakeholder (i.e., athletes) of a club (also identified as a sport organization) within elite-level youth sports. While, Shilbury, Sotiriadou, and Green (2008) suggested that “there is much to be studied in relation to the systems and pathways designed to attract, maintain, and nurture participants” (p. 219).

Shilbury et al. (2008) indicated that sport systems research is underdeveloped within the field of sport management and requires further exploration. Furthermore, Sotiriadou et al. (2008) recognized that because each sport is different, a more comprehensive examination of organizations operating within different sport systems is needed. This study sets out to contribute to this area by exploring the regulations and strategies within a system that lead to talent retention. Regulations and strategies are developed and implemented by an organization to allow for the most talented athletes to remain within the system as they move from one competition level to the next. Thus, athlete retention and the regulations and strategies is understood to be

the process [or regulations] whereby a range of policies, including development programmes and competitions/events, are implemented to identify talented junior athletes and to coach and train them with the ultimate aim of taking the most talented athletes through to the highest levels of sport. The retention and transition process aims to capitalize on the identification of the most talented, to retain them and to help them to obtain the skills required to achieve high standards of performance. (Sotiriadou & Shilbury, 2013, p. 146)

As an athlete transitions from one competition level to another, management faces the challenge of ensuring that these athletes continue to participate within their sport system and compete for their organization, which is especially the case as an athlete needs to transition from one organization to another.

An example of a specific sport that has had successfully designed an elite athlete sport system is the sport of hockey in Canada. Previous research in the sport of hockey has sought to understand the attrition rate among hockey players (e.g., Armentrout & Kamphoff, 2011; Gould & Petlichkoff, 1988); yet little attention has been given to regulations and strategies associated with talent retention, which this study explores. In a personal communication with a representative from Hockey Canada (HC; the national governing body for the sport in Canada) it was suggested that “the biggest challenge facing the Canadian hockey development system is recruiting and retaining young players in our sport” (February 22, 2011).

However, in the sport of hockey in Canada, while a representative acknowledge that athlete retention is the biggest challenge and the statistics indicate decline participation rates in Canada, there have been a consistent increase in the participation throughout the country within the various age levels. For example, in 2010-2011, there were 572,411 registered hockey players, and in 2013-2014 there was an increase of 62,481 ( $n = 634, 892$ ) registered players (Hockey Canada, 2014). This leads to the question: How is the sport of hockey overcoming these retention challenges?

The purpose of this study, then, was to explore the design of a specific youth elite sport system in Canada to gain a better understanding of how talent is retained by examining the regulations and strategies used by management in a club organization. To explore the regulations and strategies of management within a club sport system, systems theory was used as a theoretical lens through a case-study approach. The case study that was selected was the male youth local elite club ice hockey organizations where a pivotal transition point for players that are 12-years old within Edmonton (also identified as the Edmonton region), Alberta, Canada. It was reported within Hockey Canada Annual Report that Hockey Alberta (the governing body for hockey in Alberta, Canada) has seen an increase in registration between 2005-2006 and 2012-2013. For example, in 2005-2006 there were 59,110 male and female players registered in the province, while in 2012-2013, there were 71,691 male and female players registered in the province. Furthermore, Alberta has the third highest participation rates in hockey in comparison to the other 10 provinces (Hockey Canada, 2014). Thus, the research question that was posed for this study was 1) What are the regulations and strategies used by management of club hockey organizations to retain 12-year-old players entering into the club hockey system?

Furthermore, Green (2005) and Sotiriadou et al. (2008) explored athlete recruitment/attraction, retention, nurturing, and transitions in sport systems. Within these discussions, both studies recognized that these concepts were an inherent part of an elite sport system. However, absent from this discussion was the examination of the relationship between these concepts. More specifically, this study examines the relationship between system design, regulations, and strategies, and athlete retention. This lead to the second research question, which is 2) Is there a relationship between the design of the club hockey system, the regulations and strategies that can lead to youth elite athlete retention within a sport system?

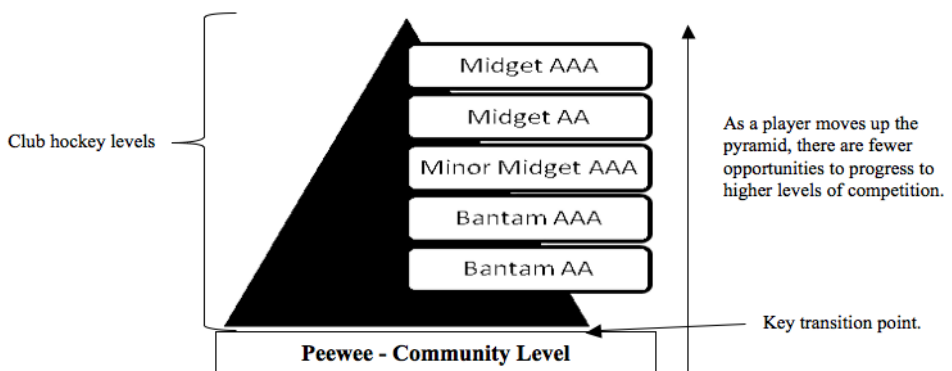
### **The Canadian and Edmonton Region Hockey System**

Scholarly research has identified hockey as a critical aspect of Canada's national identity (Armentrout & Kamphoff, 2011; Edwards & Washington, 2013; Gould & Petlichkoff, 1988; Gruneau & Whitson, 1993; Mason, 2002; Ramshaw & Hinch, 2006), so maintaining high levels of youth participation is of particular significance for the Canadian's hockey system. Edwards and Washington (2013, 2015) and HC (2012) indicated that the club hockey organizations in Canada are

the primary pathway for youth Canadian hockey players to reach higher levels of competition, such as the National Hockey League (NHL), the Canadian Hockey League (CHL), or the National Collegiate Athletic Association (NCAA).

The Edmonton region of Alberta, Canada, is a unique case study. This hockey system has two types of youth sport organizations: community-based organizations (or house league organizations) and club hockey organizations that act independently and are also interconnected. Having two types of hockey organizations is not common in other parts of the Canada, as there is typically only one organization that is responsible for the athlete pathway. Community-based organizations are “feeder” organizations for the club hockey system. Podilchak (1983) explained that “house league [or community level] emphasizes ‘non-serious’ enjoyment, whereas the selective leagues [club or elite level] emphasize skill display and athletic achievement” (p. 15). The main differences between the two sport organizations are that community-based organizations are more inclusive, have smaller registration costs, and require a less serious commitment to playing hockey; in contrast, club-level hockey has a greater commitment level, requires larger registration fees, and provides a greater opportunity to advance to higher levels of competition.

The design of the hockey system in the Edmonton region is such that community-based organizations develop youth hockey players to play club hockey (refer to Figure 1) while also competing for the same players as the club hockey organizations. A player then has the choice to try out for a club hockey team or remain at the community level, and if that player makes the club hockey team, then he will transition from house league to club hockey. Another alternative is for those players who choose not to play for a club hockey organization to continue to play for the community organization typically until the 15 to 18 age level, where the likelihood of making a club team becomes less likely as the player gets older. The final option is that an elite player can attend a private school with an elite-level hockey program (e.g., Ridley College).



**Figure 1.** Club hockey development system in the Edmonton region.

Local male youth club hockey begins in Edmonton at the Bantam level (13 to 14 years old) and remains the prominent forum for elite-level competition through the Midget level (15 to 18 years old). The context in which club hockey organizations' regulations and strategies for the retention of players was discussed focused on the participants who are transitioning from second-year Peewees (at age 12) in a community-based organization to first-year Bantams in a club hockey organization. Players wishing to continue playing at the elite level in the Bantam age group attend a tryout process with a club organization. Management of the Edmonton region's club hockey organizations seek to maximize the number of players who try out for their club in order to field the most talented teams possible at the Bantam AAA (or Triple A) and AA (or Double A) levels. The number of players trying out at the Bantam level ranges from approximately 90 to 200, depending on the season and the organization's geographic location. From these 90 to 200 players, the most talented players are selected and comprise one Triple A team and anywhere from one to three Double A teams.

Triple A is considered the highest level of competition, while Double A functions as a feeder or development league for Triple A. These levels require a certain level of skill that is determined by the club hockey coaches. HC (2012) stipulates that "The underlying principal of the club system is that organizations at all levels complement, rather than compete with one another, in order to allow players to advance through the developmental process and compete at the highest possible level appropriate to their ability" (p. 7). By having competitive teams, club hockey organizations are able to establish a positive reputation of athlete development.

Community-based organizations use a hierarchy system based on tiers, where the most skilled players (i.e., talented players) will compete against similarly skilled players from other community-based organizations. If a player is in the Tier One level, he is considered to be at the most competitive level within the community-based league. The difference between the community-based league and the club system is that it is unlikely that a Bantam player will be drafted into the CHL or recruited by an NCAA university or college. The transition from community-based to club hockey organizations presents a crucial retention challenge for managers of club hockey organizations, as they seek to keep the most talented players (i.e., those players competing in the top three tier levels) competing at the highest level possible.

In addition, the Bantam age category is a pivotal transition point at which scouts from the Western Hockey League (WHL; a subleague of the Canadian Hockey League, or CHL) begin to identify the most talented players for drafting (HC, 2012). Therefore, club hockey organizations are the stepping stones for Canadian minor hockey players wishing to advance to higher competitive levels in hockey, such as the CHL, Canadian Interuniversity Sport (CIS), the NCAA Division I or III, or NHL (Edwards & Washington, 2015). Youth hockey in the

Edmonton region has produced a number of prominent NHL players, including Jay Bouwmeester, Mark Messier, Jarome Iginla, Cam Ward, and Mike Comrie. In addition, the Edmonton region has also produced CHL players (e.g., Brendan Troock [Seattle Thunderbirds of the WHL], and Brendan Ranford [Kamloops Blazers of the WHL]), NCAA Division I players (e.g., Kieran Millan [Boston University], and Blair Manning [University of Massachusetts-Amherst]), and CIS players (e.g., Ben Lindemulder [University of Alberta], and Brock Heilman [Royal Military College of Canada]). All of the examples provided above have advanced through the hockey system that has been established in the Edmonton region.

Another example of the success from the Edmonton region is the number of players who are drafted into the WHL. For example, in 2010, the WHL selected 234 players, of which 27 were elite-level hockey players from the Edmonton region (WHL, 2010), and in 2011, the WHL drafted 231 players, of whom 19 were from the Edmonton region (WHL, 2011). While the number of players may seem low, it is important to remember that WHL teams are able to choose players from Manitoba, Saskatchewan, Alberta, British Columbia, and the west coast of the US. Comparatively, only those organizations in Calgary, Alberta, Canada are able to produce a similar number of draft picks in a given season with the Edmonton region. Typically, the highest number of players comes from Calgary and Edmonton. Producing NHL, CHL, NCAA, and CIS players signifies the success and ability of a league within a geographical area.

### **Sport Development Systems**

Systems theory is a theoretical lens for understanding sport development systems (i.e., athlete pathways). Thus, systems theory has been used as an overarching framework used to understand human behaviour (Patton & McMahon, 2006). McMahon and Patton (1995) suggested that “systems theory provides an opportunity to develop a framework to represent the complex interrelationships...” (p. 17) that exist between actors (i.e., organizations, managers, coaches, volunteers, and/or officials) within a system. Furthermore, the systems theory can be used to explain “how” and “why” the system functions as a whole. It is for this reason that this current study is exploring the regulations and strategies to understand the “how” and “why” a system is able to function, such as the hockey development system in Canada, where the actors are able to retain elite youth athletes.

Scholars have explored sport development systems (or sport systems) over the past decade (e.g., Brouwers, De Bosscher, & Sotiriadou, 2012; De Bosscher, De Knop, van Bottenburg, & Shibli, 2006; De Bosscher, Shibli, van Bottenburg, De Knop, & Truyens, 2010; Green, 2005; Sotiriadou & Shilbury, 2009). De Bosscher et al. (2006) stated that “the athlete has a central place in elite sport development” (p. 206), while Shilbury et al. (2008) indicated that “there is much to be studied in relation to the systems and pathways designed to attract, maintain [retention] and nurture participants” (p. 219). Scholars have identified that sport-specific research is required for a better understanding of sport development systems as each sys-



tem is comprised of unique characteristics (e.g., Böhlke & Robinson, 2009; Brouwers et al., 2012; Shilbury, Sotiriadou, & Green, 2008), there is seemingly a gap that examines talent retention and regulations and strategies of an organization in sport specific context.

Research on sport systems has primarily focused on Australia and the United States (e.g., Green, 2005; Sotiriadou et al., 2008). The present study expands on this discussion by examining the Canadian sport system. Sport development systems have been explored extensively in the sport management literature (e.g., De Bosscher et al., 2006; Green, 2005; Green & Oakley, 2001; Houlihan, 2000; Houlihan & Green, 2008; Shilbury et al., 2008; Sotiriadou & Shilbury, 2009; Sotiriadou et al., 2008; Thibault & Babiak, 2005). Eady (1993) identified the following characteristics of a sport development system:

something that makes a difference; the promotion/implementation of positive change; the provision of opportunities that are extra/additional to those that already exist; planned, structured and achievement orientated; locally original; the removal of barriers; an educational process; about changing the attitudes of providers and participants contemporaneously; a tradition challenging tradition. (p. 9)

Sport development systems have been depicted in the shape of a pyramid with three levels: mass participation, competitive, and high-performance sport (Green, 2005). Green used this model to understand the construction of sport programs designed to facilitate athlete recruitment, retention, and transition. Within a system, an elite sport organization's success can be contingent upon the development of athletes and the ability of management and coaches to identify the most talented athletes and have them transition from the mass-participation level to the competitive level to the high-performance level. Green depicts a static linear upward movement by athletes from the base of the pyramid (mass-participation level) to the top (i.e., high performance). Furthermore, Green (2005) noted that "attention has not been given to athlete transitions, to new athlete roles as they move up, down, or horizontally in the sport system. It is a significant gap in our research literature" (p. 248).

Shilbury et al. (2008) contended that Green's (2005) model did "not capture the increasing sophisticated nature [or complexity] of the sport system" (p. 219). Sotiriadou et al. (2008) expanded on Green's model and depicted how athletes can transition throughout the Australian sport development system. Their results further explained that movement within a sport development system is not necessarily static where the athlete moves up through the pyramid, but rather that there are multiple entry and exit points where an athlete can transition back and forth between competitive levels. Sotiriadou et al. (2008) provided a broad overview of an entire sport system, and at the conclusion of the study identified a need to study sport-specific systems. This study fills that gap.

Systems in general can be classified into two categories: open or closed. A closed system can be described as a system where there are barriers to entry by external organizations, there is a lack of transparency by external constituents (e.g., possible customers), minimized environmental influences on the stability of actors within the system, and that “all consequences of action are contained within the system and all causes of action stem from within it” (Thompson, 2008, p. 85). While an open system is transparent with regard to organizations involved in the system (e.g., provincial sport organizations in Canada), flexibility in terms of entering and exiting the system, and the “effects within the system may stem from action outside the system” (Thompson, 2008, p. 85). By understanding the difference between the two systems, this study will be able to explain what type of systems may be more conducive for athlete retention, or in the context of this study, elite player retention. The concepts of open and closed systems has been discussed at the organizational level (e.g., Slack & Parent, 2006; Thompson, 2008). There has been limited research exploring these concepts at the broad systems level, which this current research sets out to explore.

### **Athlete Retention**

Several sport management studies have addressed the retention of employees (e.g., coaches), volunteers, and athletes. However, the critique of previous research that has discussed retention is that much of the research has focused on multiple concepts, and there are limited studies that have specifically explored athlete retention. For example, Edwards and Washington (2013) explored the recruitment, selection, and retention of elite-level club hockey coaches, finding that management used coaches to enhance and maintain the reputation of the club hockey organizations. Knoppers (1992) examined the relationship between retention and the underrepresentation of women in coaching positions; Inglis, Danylchuk, and Pastore (1996) investigated the retention of intercollegiate coaches and administrators in a university setting; and Cuskelly (2004) addressed the trends related to volunteer retention in community sport organizations. Le Crom, Warren, Clark, Marolla, and Gerber (2009) conducted a gender-based study that examined the effects of scholarship support, gender, and sport type on student-athlete retention in U.S. universities and colleges. Furthermore, Kim, Chelladurai, and Trail (2007) described results indicating that volunteer-based sport organizations need to empower their volunteers by assigning tasks that match their strengths, and that doing so contributes to volunteer retention.

Sotiriadou et al. (2008) and Green (2005) discussed athlete retention within the context of sport development systems. Green (2005) posed a number of questions regarding athlete retention; one of the questions that is relevant to this research was, “What kinds of reinforcers [or regulations] ensure continued involvement?” (Green, 2005, p. 236). Green (2005) indicated that “retention is dependent on the commitment an athlete develops to the sport and/or to the sport organization” (p. 236). Building on Green (2005), Sotiriadou et al. (2008) understood

retention strategies “to capitalize on the identification of the most talented, retain them, and assist them to obtain the required skills to achieve high standards of performance” (p. 26). The scope to which athlete retention is discussed within the sport development systems literature is limited, which is a contribution that this study makes to the field of sport management.

### Methods

This research employs a qualitative methodology through case study approach, by drawing data collected from interviews with club hockey volunteers (e.g., executive board members) and the management of the governing hockey bodies and secondary data sources in the form of documents and website content. Case study research is “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2003, p. 13). Case study research can contribute to the knowledge of individual groups as organizational, social, political, and related phenomena, and it can allow for “investigators to retain the holistic and meaningful characteristics of real-life events such as individual life cycles, organizational and managerial processes, neighbourhood change, international relations, and the maturation of industries” (Yin, 2003, p. 2). This study explores the contemporary phenomenon of a youth elite-level sport system by examining a single case study of the club hockey organizations in the Edmonton region of Alberta, Canada, at the Bantam age transition point.

### Data Collection

Face-to-face and phone interviews were conducted with representatives from club hockey organizations and governing hockey bodies. Additional data were also collected from documents and websites from club hockey organizations and governing hockey bodies. Participants from six club hockey organizations located in the Edmonton region and from three hockey governing bodies, specifically HC, Hockey Alberta (HA), and the Edmonton Minor Hockey Association (EMHA) were invited to be involved in the study. The Edmonton region was selected because the player development strategies used there have helped many players progress into the CHL and NHL (thus indicating that the development strategies have been successful), and players transition from a community-based organization to a club hockey organization.

With the interviewees' permission, 13 semi-structured interviews were audio-recorded; 11 of these were face-to-face, and two took place via phone. The interviewee group included hockey directors, vice presidents, presidents, former presidents, scouts, team managers, and executive board managers from the club hockey organizations, as well as upper-level management (e.g., directors and managers) from each of the three governing bodies. The interviewees have all been involved with their organization or within the sport system for at least two years. To protect confidentiality, the six club hockey organizations were designated Organizations 1

through 6 and the participants as P1 through P13. The interviews lasted from 45 to 75 minutes; the face-to-face discussions took place in coffee shops and offices.

During the course of the interview process 20 to 25 open-ended questions of each interviewee were posed. Open-ended questions were used because these types of questions facilitated free-flowing dialogue between the researcher and interviewee (Patton, 2002); along with the opportunity to probe further into the responses of interviewees that was unscripted. Topics of discussion with the club hockey representatives included relationships with other club organizations, organizational goals, organizational history, policies, organizational procedures, past accomplishments, programs, athlete pathways, coaching, revenue sources, ice time, league rules, and future plans. With the governing body representatives interview topics included system boundaries, player development, coaching, athlete pathways, goals of the governing bodies, coaching literature, player literature, player registration, communication methods, concerns with the hockey industry at the grassroots level, and the future of minor hockey in Canada.

Additional data were collected from the websites of the club hockey organizations and governing hockey bodies; documents retrieved from these websites were used as a means of validating the content of the interviews. These supplemental materials also enhanced the interviewees' responses. Data were gathered on each organization's mission statement, vision statement, history, programs, long-term goals, short-term goals, membership rates, rules and regulations, sponsorship information, and contact information. The additional data contributed to the richness of the dataset for this study and was used for triangulation and validity purposes.

### Data Analysis

Interview data were transcribed and then reviewed and analyzed. Following the transcribing of data, the transcripts were sent via email to the study participants for member-checking purposes. Each study participant was given two weeks to review his transcript, and in only one instance did a participant provide clarification, through an email response, on a specific point that was made during the interview process. The analysis followed a five-stage process, originated by Miles and Huberman (1994) and refined by Edwards and Skinner (2009) and used by Edwards and Washington (2013). In stage one, *familiarization* is when the researcher becomes familiar with the data from the eight case studies through reviewing the audio recordings and transcriptions (Edwards & Skinner, 2009). In the second stage, *thematic framework*, transcripts were examined to extract thematic content (Edwards & Skinner, 2009) from both the interviews and the supplemental data. Themes were determined based upon the frequency of their occurrence in the audio and in the texts (Ryan & Bernard, 2000). It was at this point in the analysis process that the overarching theme of player retention emerged. The themes are identified as regulations and strategies and are discussed further below.

In the third stage, *indexing*, codes were assigned using the strategies that emerged from the data. In the fourth stage, *charting*, interview data were organized from the indexing stage into individual documents using the NVivo9 computer software. Each document contained quotations drawn from the interview data that addressed the same theme or topic. In the final stage, *interpretation*, previous research on sport development systems, systems theory and athlete retention was used to interpret the finding from the eight case studies.

### Findings

The findings revealed that HA and EMHA enforces residential boundary regulations that inhibit a player's ability to play for any club within the Edmonton region; while there are strategies in place that consist of Player Development, Facility Ownership, Performance-Driven Outcomes, and Information Sharing that are used for retention purposes. Within the context of these regulations and strategies, P3 described their system as being "an elongated pyramid, where the bases are three Bantam Double A teams, which feed into a Bantam Triple A team, and from there, all the Bantam player graduates feed into our Midget Triple A teams, Minor Midget Triple A, and Midget Double A teams. So we need a base of players, a foundation and that starts at Bantam double A." Club hockey management's focus is on the foundation players as a means of ensuring that the players remain within the system and try out for elite-level hockey and that there is a smooth transition from community-based organizations to a club hockey organization. For example, the strategic plan of Organization 1 identifies "retention of our current player base and growth of new players" as keys to success (Organization 1 data file, 2009).

#### Residential Boundary Regulations

While most of the interviewees did not use the word retention, their emphasis was clearly on retention rather than recruitment, as regulations adopted by the governing bodies greatly limit player mobility between clubs. A *Boundary* is the "line, as mutually agreed upon and/or recognized by HA, that separates one member association [club hockey organization] from another, and defines that area from which each member association may register participants as 'resident' players" (HA, 2011, p. 2). Interviewees identified these regulations as residential boundary regulations enforced by the EMHA and HA. P1 explained that players "don't have a whole lot of choice, because the way the hockey is organized in Edmonton is by zones. The kids that live within a zone have to come to our club [or the club that the player lives within the zone] to play hockey, so we have to find ways to make sure they continue to play at the elite level" and there is no choice for the players and elevates the recruitment of players between club hockey organizations. The reason that the residential boundary regulation was implemented was due to the fact that historically certain club hockey organizations had a reputation for developing elite players and as a result, the top players tended to play only for

those organizations; where the top players ended up playing for two organizations and the remaining organizations contained the lower end players. This created a competitive imbalance within the leagues (EMHA, 2012).

Because of this imbalance, HA and EMHA enforces and regulates the residential boundaries regulations enacted in the Edmonton region. Within these boundaries, community-based “feeder organizations” facilitate the transition of players to club hockey. The reason that this may hinder talent retention is that in some areas, a talented player may make a team that is comprised of less talented players, which might stifle their development and even result in the player not trying out for club hockey and choosing to play in community-based hockey organizations. The challenge for management of these club hockey organizations is that there is no control over development at the community level; thus, some organizations are “stuck” with players with a lack of skill. As P11 explained, “There’s no connection with development, so we get kids with no skill here, there’s nothing we can do about it.” The lack of development stems from inexperienced and unqualified coaches at the community level (P1, P2, and P11).

This was further corroborated by other interviewees (e.g., P2); for example, “See, one of the things about Edmonton, I guess all of Alberta, it’s residence-based. So wherever you live, that’s where you have to try out” (P4). P11 of EMHA explained that, “so wherever you are, your second-year novice is where you’re playing hockey until you’re in bantam. The only way to get out of that is to physically change your residence from one zone district to another or quit for a year, which is absolutely stupid.” As a result, management is not concerned about recruitment (P2); rather, there is a focus on ensuring that players who can compete at the club level are retained from the Peewee age category to the Bantam age category to the club hockey level. Thus, the combination of the residential boundary regulation and the retention strategies (i.e., Player Development, Facility Ownership, Performance-Driven Outcomes, and Information Sharing), which will be presented in greater detail below, are the mechanisms in place for ensuring that the players continue to compete at the elite level and transition from the community-based organization to a club hockey organization.

An important clause to consider regarding the residential boundary regulation is the release of a player from the organization once the player has not successfully made a Triple A or Double A team. A player who originally tried out for a club within the Edmonton city limits can ask for a release from the organization. The release allows the player to try out for other Edmonton clubs (P11). If a player is released at the Triple A level, then the player can only try out for other Triple A teams within the city limits. The player is required to return to the organization that released them if they do not make another Triple A team, to try out at the Double A level. P11 explained that players and parents exercise the “release option” because some organizations had poor development programs and/or coaches. A player has seven days at the Bantam Triple A level, or 10 days at the Midget Triple A level, to try out with different club hockey organizations (P11).

## Player Development

Player development is the prime focus for management of all of the club hockey organizations. This strategy can be found in most organizations' mission statements, strategic plans, vision statements, organizational goals, and programs. For example:

[Organization 5] believes that through the development of every individual player, each team benefits from their resulting depth, diversity, and cohesion. This produces a level of confidence that will bring success in a competitive hockey environment. Emphasis will be placed upon excellence, commitment, sportsmanship, discipline, personal development, skill development and team work. (Organization 5 website, 2011)

Organization 1, in its mission statement, also indicated that a primary goal of the organization was to "provide a high-performance hockey development program built around our core values and supported by our long standing history, strong governance and progressive leadership." Similarly, the Organization 4 website states, "The purpose of the program is development." In addition, all 10 interviewees from the club hockey organizations supported that player development was a primary goal of the organization; for example, P7 stated, "We take the kids and we try and carry them to the next level." Player development could be attributed to coaching, the hockey club's hockey program, the development program in the community-based hockey organizations, or simply the fact that there are more talented hockey players who live in a particular zone (P1). Thus, the ability of an organization then to develop a player varies from club hockey organization to club hockey organization.

One of the retention issues faced by management of club hockey organizations is that players who are used to playing on the first or second line for a community hockey organization may become third or fourth line players for club hockey organizations as they would be deterred from trying out for club teams and not having as much playing time. Typically, in the sport of ice hockey, teams have four lines at the elite level (three forwards and two defencemen make up a line). The first two lines are considered to be the lines that have "stars" playing, which results in a greater amount of ice time. The third and fourth lines receive less ice time as they do not have the "stars" on those lines, which ultimately means less ice time and equates to less player development. Six interviewees observed that "stars" on the first and second line typically getting more ice time can be a deterrent for players and parents deciding whether to try out for a club hockey organization, as it negatively shapes the reputation of the organization. P2 described the situation in their organization as,

There's a stigma that's attached to all organizations, ours being one. Ours being one that we find one or two superstars, what do we do? We work on them. We make them become superstars in our organizations. We highlight them. How do we highlight them more? The coaching staff will play

them more because if the kid's highlighted, who else is highlighted? The coaching staff. So is that a benefit to the team? Sure they're winning and this kid's doing good. But what about the other players? You've got one or two players, what about the rest? They see a good player, but what about the rest? So there's that stigma of developing just one or two players and I don't know if we're ever gonna get rid of that. That's a tough one.

HA and HC have created and provided literature, videos, and other player development resources for managers and coaches of club hockey organizations. A particularly important document regarding player development is HC's Long-Term Player Development Model (LTPD). The LTPD provides information pertaining to technical skill sets for each age level within the Canadian hockey system. This document presents "an improved, more uniform system to assist in the progression and development of Canadian players within the Canadian club system" (HC, 2011b, p. 5). HC (2011a) describes the LTPD as "an eight-stage model based on the physical, mental, emotional, and cognitive development of children and adolescents. Each stage reflects a different point in developing the player" (p. 6).

The coach at the club level is responsible for the team's training schedule, and the amount of training varies from week to week. Gaining any extra ice time becomes the responsibility of the coaches and individual team managers. The practice ice times vary for each team; for example, Organization 1 provides two to three ice times a week, ranging from 75 to 90 minutes per session. Other organizations' ice slots range from 60 to 90 minutes, contingent on the ownership of the arena (i.e., whether it is city-owned or privately owned). This is a significant time commitment for these young athletes, who also have school requirements and other interests. Thus, at the Pee wee/Bantam transition point players are seemingly forced to specialize and make a commitment to only one sport as opposed to playing multiple sports, which can be a deterrent for playing elite level hockey.

### Facility Ownership

Facility ownership is a transition strategy relevant to both player development and retention. Two organizations within the Edmonton region own their arena, while the others have to compete for city-sponsored ice, not only with each other but also with figure skating organizations, other on-ice sports (e.g., Ringette), men's and women's hockey leagues, and community hockey organizations. P1 expressed the benefits of owning a facility: "We are a little bit better, because we have an upstairs where they can do dry land training; they [the teams] can do classroom; the club doesn't charge for any of that." Furthermore, the management of Organization 1 was in discussions with the city of Edmonton to increase the size of its privately owned facility from one to four ice pads. P2, a representative of Organization 1, explained, "We're going to have everything. Our games are going to be there; our practices are going to be there; we're going to have a workout facility there." As most interviewees identified an ice shortage in the Edmonton region,



the additional ice surfaces would be a much-needed boost for both community and club hockey organizations, since the facility would host other organizations' activities as well.

In addition, P2 suggested that Organization 1 has a competitive advantage for player development because players can receive a fixed amount of ice time each week. As P2 pointed out, "The kids know when they're going to practice. They have their practice schedule for the whole year." The benefit of knowing the number and times of practices for the whole year allows parents and coaching staff to schedule other activities. If allotted practice times conflict with games or other team commitments, it is up to the coach either to sell the ice time or trade the ice slot with other coaches in the organization.

For those organizations that do not own a facility, ice time comes from the City of Edmonton and surrounding cities. P9 explained:

We have a shortage of ice, [but] politically it is seen as [if] we don't have a shortage of ice. This is because there is ice available from 9 a.m. to 3 p.m., so there is no lack of ice. When you need the ice, there is not enough during prime time hours, so for me the only thing that would impact our program would be high registration and no ice to support the registration.

As a result, several organizations indicated that their teams travel to practices in other rural towns. Also, the ice times available are often less than ideal. One participant explained that some ice slots start at 4:15 p.m., but that players do not finish with school until 3:30 p.m. Because some parents may not be able to get off work in time to drive their children to practices, some players may not be able to attend. In other circumstances, the ice time could be late at night, forcing players to return home extremely late on the night before a school day.

Owning an arena provides a competitive advantage for a player's development, because those organizations that own an arena can provide the necessary access to ice time and, in some cases, off-ice training for player development. For example, a Double A team with Organization 1 receives about 105 hours of training time over a 28-week season. The training consists of two practices (lasting 90 and 75 minutes, respectively) and one off-ice training session, typically 60 minutes long, each week. These numbers increase further at the Triple A level. In contrast, club hockey organizations that do not own an arena may not be able to offer a comparable amount of ice time, and this limitation can affect player development.

### **Performance-Driven Outcomes**

The interviewees also acknowledged the use of Performance-Driven Outcomes as part of a retention strategy, but they spoke of this strategy less favourably. Managers built this strategy around three objectives: having a winning team, winning awards, and players reaching higher competition levels. The interviewees considered the performance of both teams and players to be developmental indicators of an organization's success and pointed out that managers of club hockey

organizations communicate the details of such success to potential parents and players. Thus, Performance-Driven Outcomes becomes a marketing tool for retaining players and parents.

Winning, however, can also carry a negative connotation. According to HC (2011c), winning should not be the primary focus at any level. In addition, the interviewees were reluctant to use the term *winning*, because the positive value of the term had been stained by those few coaches for whom the objective was to win at all costs, thereby detracting from the focus on development. P13, a representative of HC, addressed this concern directly: “A lot of times it’s about playing to win, and that’s a huge problem in our society as far as how we view the game of hockey. I mean, you can play a great game and lose 8–6, or you could play a bad game and win 2–1, and that 2–1 game is the one that really matters.” Bantam Triple A is a highly visible level because the WHL franchises draft players from these teams, and a Bantam Triple A team that wins is likely to attract greater interest from WHL scouts. Interviewees (e.g., P1, P2, and P3) suggested at any given time throughout a season there are at least two to three scouts from different WHL franchises attending the game.

P13 also said that, even though the coaches are volunteers, they are under pressure to win; a coach whose team does not win is not likely to coach for the organization for a sustained period of time. One interviewee stated, “There’s lots of kids who have had a certain coach in minor hockey and didn’t have a good experience and all of a sudden they find that that guy is coaching the Bantam Double A team or Triple A team and they’re like ‘I’m not even trying out.’” He added that, in many cases, “kids who played Bantam Double A their first year and did not have any fun [and decided] ‘I’m not trying out for Bantam Triple A. I’m just going to go back to the community-based organization and play with my buddies that I grew up with and just have fun.’”

An emphasis on winning can overshadow player development. “You try to win ‘cause kids won’t come to you if you’re a losing franchise. That’s what we’ve found,” said one interviewee. However, a focus on winning often causes the coach to use his best players more often rather than developing all of the team’s players. Thus, the stars get all the ice time while other players sit on the bench and do not receive an opportunity to improve. The precarious balance between development and winning is a challenging pitfall for player retention.

The second aspect of a performance-based outcome strategy is having players move to the next level, which can also be an indication of the success of an organization:

You know one of the biggest attractions, whether it’s a program or a school or an association, have is when people start to look at the number of players who move on from that organization to higher levels... And that goes a long way. I mean, there are people out there that will sell their house in a certain area [and] buy another one in [a different] area in order just to

be part of that organization. So there are organizations that do have a very good reputation for development and the number of players that go from there on to the next level. (P13)

For example, Organization 3 alone has trained 14 players who later reached the NHL. All of the club interviewees stated that they track the progress of their former players and use the success of those players to promote the organization, often through the organization's website. By demonstrating the success of players who came through the club hockey system, managers of organizations are suggesting that today's prospects can mimic that success by remaining in the club hockey system.

### **Information Sharing**

Information Sharing as a strategy that is used by managers to discuss Player Development, Facility Ownership, and Performance-Driven Outcomes to potential players, current players, and parents. Club hockey organizations host informational meetings, form partnerships with public schools, and attend meetings of community organizations to inform parents and players of the expectations, fees, development, structure, coaches, and opportunities available through playing club hockey. Sharing this information is important for promoting the organization and allows the organization to be proactive in shaping its reputation.

Organizations 1, 2, 3, and 4 all host information sessions in which management was able to facilitate the flow of information to prospective parents and players. For example, the management of Organization 2 holds open houses: "Every year we have incoming a Bantam open house for first-year Bantams or Peewee graduates, and so we often make reference to the club tradition" (P3). Information sessions reinforce ideas pertaining to coaching, player development, mission statements, goals, procedures, player development, philosophy about winning, and rules and regulations associated with entering the organization.

Previous players attend these information sessions on behalf of the club hockey organization to promote the club experience and answer questions. Organization 2's management uses former players who have played in the NCAA, the CHL, or even the NHL as a means of demonstrating the benefits of playing for that organization. Club hockey organizations also convey such information to current and potential players and parents on their website (e.g., Organization 4), in the main arena where their teams play (e.g., Organizations 3 and 5), or at the end-of-year awards banquet (e.g., Organization 1).

Another Information Sharing strategy used by four club hockey organizations (Organizations 1, 2, 4, and 6) was to have their board members attend meetings of community hockey organizations. This can be a struggle for a club hockey organization as community hockey organizations are also attempting to retain players to ensure that teams exist at the different skill levels. P7 noted that Organization 4 has "developed a new portfolio in the executive where we've created a liaison position

with the feeder organization. And we now sit in on the feeder groups meetings.” A similar position also exists in Organization 1. Having board members attend a feeder organization’s executive board meeting establishes a direct line of communication between the two organizations. At these meetings, the representatives of the club hockey organizations may share information about their program, discuss player development strategies or coaching issues, or simply offer advice. The overall goal of sitting in on the feeder organizations’ meetings is to ensure that parents and players receive a consistent message from both organizations.

As another Information Sharing strategy, the board of directors of Organization 4 formed a partnership with some of the specialized public hockey schools in Edmonton. The public education system in Edmonton allows a student to specialize in a specific activity. For example, if a student has an interest in soccer, there are specific schools that offer soccer academies. Other areas of specialization include the arts (e.g., dramatic theatre), trades (e.g., electrician or plumber), lacrosse, or hockey. While attending the hockey program, the child has a set period of time when he or she is in the classroom and another set period of time when he or she is on the ice. Organization 4 built a partnership with instructor-teachers in the public-school hockey program and offered them the chance to be coaches in Organization 4:

We’re working through the schools, more specifically the hockey schools. These schools are a huge asset in our community. We use their expertise to help us grow. We also are looking at reaching out to other schools. It’s great when you can use them to communicate with potential players; we bring them aboard because they promote the hockey and encourage the kids to continue, to strive for the elite experience. (P7)

Interviewees from other organizations indicated that some of their coaches were instructor-teachers at these academies by coincidence; however, these organizations did not use this situation as a means of communicating directly with the schools.

## Discussion

The regulations and strategies found at the key transition point of when a player moves from the Peewee age group at the community level to Bantam age group at the club level are seemingly intertwined with the concept of player retention. Sotiriadou and Shilbury (2013) suggested that, in order to create a successful transition process organizations need to adopt intentional strategies to retain athletes. In the case of this study, it was found that regulations and strategies are adopted and enforced by EMHA, HA, and the management of club hockey organizations and that athlete retention is a by-product of this adoption. It can then be argued that the composition of the system can enhance an organization’s ability to retain athletes. This study began by posing two research questions: 1) What are the regulations and strategies used by management of club hockey organizations

to retain 12-year-old players entering into the club hockey system?; and 2) Is there a relationship between the design of the club hockey system, the regulations, and strategies that can lead to youth elite athlete retention within a sport system?

The findings answered the first research question, where residential boundary regulations are enforced; while the strategies consisted of Player Development, Facility Ownership, Performance-Driven Outcomes, and Information Sharing. To answer the second research question, the findings are discussed within the context of a sport system and theoretical grounded in systems theory, and retention literature below. The regulations and strategies are internal environmental factors within the design of the club hockey system that can have a by-product of athlete retention.

Sotiriadou et al. (2008) explained that in order to have successful athlete transitions, management and other sport development stakeholders (e.g., parents, and coaches) must develop and implement various strategies. With this logic in mind, the Edmonton region club hockey system can be appropriately described as a closed system. The design of the closed system is relatively impervious to external penetration by environmental influences (e.g., politics, economics, or technology), such as the entrance of other competitive organizations (e.g., private hockey schools with elite-level hockey programs) as EMHA and HA limit these environmental influences. Thompson (2008) stated that the “effects within the system may stem from action outside the system” (p. 85); however, closed system boundaries are created through regulations that enable the implementation of organizational strategies as they relate to athlete retention. In the case of this study, the boundaries were created from the residential boundary regulations that essentially force players who would like to play at the elite level one option in regard to which organization they can try out. In one respect these boundaries are created to ensure competitive parity. In another respect, the residential boundary regulation prevents that freedom of choice for players and parents.

In a closed system, sport managers can become complacent in their strategies and less adaptable to changes occurring in the surrounding environment as they rely on governing hockey bodies as buffers against environmental influences. Thompson (2008) further explained that “all consequences of action are contained within the system and all causes of action stem from within it” (p. 85). Within a closed system, complacency can occur. Complacency can affect player development strategies in that the sport manager continues to implement the same strategies from one year to the next, even while changes are occurring in the game itself or in the external environment. This can occur in situations where management and/or board members have been involved with the organization for a long period of time, which is also identified as the “old boys” club. Thus, these individuals have become complacent with established norms for development player strategies. This complacency can then reduce the attractiveness of the organization to prospective members at specific transitional points within a sport system as potential

parents and players can perceive the organization as not up to date with those regulations, processes and procedures associated with the sport.

A closed-system design, such as the one described in this study, is more reflective of Green's (2005) sport development model than that of Sotiriadou et al. (2008). In the latter model, athletes can transition back and forth within different levels. In a closed system, such as the club hockey development system in Edmonton, the player pathway is much more linear and static, preventing players from transition at multiple entry points. Furthermore there becomes less roster space available as a player transitions through the age categories. Barriers (e.g., residential boundary regulations, or types of player development) exist at the key transition points within the system, limiting options for the athlete, making it challenging for management to convince players to participate at the elite level. For example, at the transition point where a player decides to try out for Bantam after playing Peewee, that player does not automatically make the team; the player still has to be selected, and due to the residential boundary regulations, players are not able to try out for any team within the Edmonton region until they acquire a release to try out for an organization in another zone, which does not have to be given by the organization. Furthermore, if a player decides to play community-level hockey as a Bantam, it is unlikely that the player will be able to enter the club hockey system at a later point, as the development and competition level are not as high at the community level.

The closed nature of the club hockey system facilitates talent identification as players move upward in a linear manner but prevents players from having multiple pathways to develop at the elite level, which is conducive with Green's (2005) athlete development model. Player recruitment is virtually eliminated from the system, and player retention becomes the focus of management as residential boundary regulations play a prominent role. From a retention standpoint, restricting an athlete's mobility through a closed system can become a deterrent to continued participation, if the strategies implemented by the management of the elite sport organization do not match the expectations of the athlete and his parents there becomes the likelihood of not competing and parents paying large sums of money to the league and organization. A closed system prevents competition among organizations for players, and theoretically creates and establishes competitive balance for leagues.

In most cases, it could be argued, the most talented players in Peewee will want to compete at the top level and will almost invariably progress into club hockey. Hence, the main promotional focus for club hockey managers is on presenting the value and opportunities of the club hockey system to those players who will likely start out on the third or fourth line of a club team. This transition point poses a challenge for the players who will move to a lesser role within the club level team in comparison to their prior experience with their community-based team. These players (and their parents) who will receive less playing time, while still paying the

same costs and making the same time commitment as the most talented players and parents, are the ones who will need to be convinced of the program's value. It then becomes important for management and coaches to nurture and develop these athletes to create a positive experience for the players for the purposes of athlete retention.

### **Conclusion, Contributions, and Future Research**

The purpose of this study was to explore the design of a specific youth elite sport system in Canada to gain a better understanding of how talent is retained by examining the regulations and strategies used by management in a club organization. The findings revealed that a means in which to ensure athlete retention and smooth talent transition between levels within a system is to create a closed system. A closed system is created by establishing boundaries through which strategies can be implemented to ensure athlete retention. Based on the findings, these boundaries were established through residential boundary regulations; while the retention strategies that are being implemented by management of sport organizations consisted of athlete or Player Development, Facility Ownership, Performance-Driven Outcomes, and Information Sharing. This regulation and strategies answered the first research question.

Based on these findings, then, the design of the club hockey system is intertwined with the internal factors (i.e., regulation and strategies) and has an impact on a player's transition from the community level to club level. In having a closed system, athlete retention becomes critical at each transition point, but also it can be suggested that a closed system design can inherently facilitate successful athlete retention. By understanding the regulations and strategies, it enables a higher chance of success for management operating within a closed system to retain athletes, which can be attributed to the success of the Canadian hockey system in the Edmonton region of Alberta, Canada.

### **Contributions and Future Research**

This study makes a contribution to the field of sport management by addressing a gap in the research that is sport system specific and is illustrating the relationship that exists between transition processes and strategies, system design, and talent retention. Arguably in an open system, athlete retention can be a challenge, as there are external factors that could influence management's ability to retain the most talented athletes. This warrants further research to gain a better understanding of the use of the terms *recruitment* and *retention strategies* and how they compare in differ within a sport system, particularly between North American sport systems and European sport systems at the grassroots level. Furthermore, future research is needed for exploring if there are differences in athlete retention and an open system design.

As identified above, athlete retention research has been limited in scope and has not been explored at the grassroots elite level. Edwards and Washington

(2013) explored recruitment, selection, and retention of coaches at the grassroots elite level of sport; however, the research in this area is limited. This current study expands on this body of research by exploring talent retention at a grassroots elite level, while specifically focusing only on the concept. As indicated above, previous research has discussed multiple concepts that include recruitment (Sot, nurturing) (Green, 2005), and retention. Further research is needed in athlete retention, in connecting with sport participation rates, to better understand the management strategies to ensure that athletes are transition from one level to the next. While the sport of ice hockey was used in this study, other sports are needed to be explored to gain a better understanding of their athlete pathways, key transition points, and whether recruitment or retention strategies are employed by management are effective.

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