What are the early sport and play experiences of elite New Zealand Hockey players from rural and regional communities?

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Abstract

The topic of athlete development attracts strong interest within high performance sport both globally and within New Zealand. A range of athlete development models exist and there are a number of contributing factors to athlete development. However, the foundations of an athlete's development are formed through their early developmental experiences. The purpose of this study is to explore the early sport and play experiences of elite New Zealand hockey players from rural and regional communities. In its examination of how smaller communities contribute to the development of New Zealand's top athletes, this research has a particular focus on the athletes' early sport experiences, early play experiences, and the people around them as they grew and developed.

This qualitative descriptive study employs semi-structured interviews to gather data from eight current and former New Zealand international hockey players. Data was analysed both deductively and inductively through a process of thematic analysis. The analysis process identified six dominant themes including: 1) Diverse range of sports played; 2) Young for the team; 3) Types of play; 4) Roaming and responsibility; 5) Overcoming challenges; 6) Support.

The findings of this study indicate that early sampling of a range of sports with later specialisation was part of a pathway to success for the participants of this study. This finding strongly supports Côté and colleagues' 'Developmental Model of Sport Participation (DMSP)' (Côté, 1999; Côté, Murphy-Mills, & Abernethy, 2012). Surrounded by a physical, social and cultural environment that supported large amounts of roaming and responsibility alongside unstructured, outdoor, risky play experiences, the participants of this study clearly profited from these early developmental experiences to become successful athletes.

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Attestation of Authorship

"I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where specifically defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning."

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The application for ethical approval was completed by Bobby Newport and submitted to AUTEC in November 2016. Ethical approval was granted on 18th November 2016 with an amendment approved 27th March 2017, reference number 16/435 (see Appendix D and E).

Chapter 1: Introduction

This is a qualitative descriptive study exploring the early sport and play experiences of elite New Zealand hockey players from rural and regional communities.

1.1 Background to the research

Elite athlete performance is an important topic across the globe. Government investment in elite athletes has been likened to a 'sporting arms race' (Grix & Carmichael, 2012) with nations vying for sporting supremecy. The New Zealand government is no exception, investing millions of dollars annually in sport and, in particular, high performance sport (Dickson & Naylor, 2013; Sport New Zealand, 2018). As New Zealand's crown entity leading high performance sport, High Performance Sport New Zealand's vision includes, "inspiring the nation through more New Zealanders winning on the world stage" (High Performance Sport New Zealand, 2017, p. 4). However, these winning New Zealanders all begin somewhere and find their roots in communities across the country. Given this, it is important to understand what contributes to the development of these elite athletes. This research examines how smaller communities contribute to the development of New Zealand's top athletes with a particular focus on their early sport experiences, their early play experiences, and the people around the athletes as they grow and develop.

Athlete development is a multifaceted and dynamic concept. A range of athlete development models have been proposed including more recent 'Long Term Athlete Development' models that have been embraced by a number of nations (Balyi & Hamilton, 2010; Côté & Vierimaa, 2014). One of the most prominent conceptualisations is the 'Developmental Model of Sport Participation (DMSP)' (Côté, 1999). This model identifies two athlete development pathways: an 'early specialisation' pathway and an 'early sampling' pathway. The latter involves three distinct developmental stages: the sampling years, where fundamental skills are acquired and refined (childhood; 6–12 years); the specialising years, where athletes narrow their focus (early adolescence; 13–15 years); the investment years, characterised by single sport devotion (late adolescence; 16+ years); with an additional category of the recreational years (adolescence; ages 13+ years) (Côté, 1999; Côté et al., 2012). The sampling years (6-12 years) provide an essential stage in athlete development where the impact of living in a rural or regional community will be at its greatest.

There is increasing evidence that sampling a range of sports is useful for athlete development (Côté, Lidor, & Hackfort, 2009; Goodway & Robinson, 2015). Unstructured play (Milteer & Ginsburg, 2012) and risk-taking (Dietze, Pye, & Yochoff, 2013) also complement the early sports experience by supporting healthy development of the individual. In addition, the role of significant people and the community surrounding the athlete all impact on an athlete's motivational climate, which in turn has an immense impact on the athlete's subsequent development and engagement with sport (Storm, Henriksen, Larsen, & Christensen, 2014). Acknowledging this early sampling of sports and the importance of play in their *Talent plan 2016 – 2020*, Sport New Zealand (2016) argued against the claim that early specialisation in sport is the only pathway to elite status. Sport New Zealand consider that both play and participation are the essential foundations of the athlete development pathway.

Ankersen (2012) identifies a number of areas across the globe that consistently produce elite athletes. More often than not these areas are not large urban centres with top training facilities, but smaller, often isolated communities, with minimal equipment (Ankersen, 2012). Small communities often breed athletic success (Balish & Côté, 2014); this could be linked to the early sporting experience in smaller communities often having some unique characteristics. These include being less structured, being characterised by youth-led outdoor activities, having mixed age and gender groups, athletes playing and competing together through the grades, and athletes sampling a range of sports. All of these experiences occur in a climate supported by a community built on deep family roots (Balish & Côté, 2014).

1.2 Context of the research

Despite the literature highlighting the potential relationship between smaller communities and sporting success, minimal research of this nature has been carried out in New Zealand. Further to this, there is little evidence of research in New Zealand that draws upon the athlete's voice as a source of information for examining their pathway to elite success.

New Zealand is a relatively young nation, with a comparatively small population. Urban centres are small by global standards and a large proportion of the population lives outside these centres (Poot, 2012; Statistics New Zealand, 2016b). Yet, New Zealand excels on the world sporting scene. The 2016 Rio Olympic Games saw New Zealand finish with the third most medals per capita of any nation involved (Statistics New Zealand, 2016c). Hurley (2012)

states, "small town New Zealand is still the home of our Olympic medallists despite the big cities having most of the country's high-performance facilities" (para. 1). The smaller communities that characterise New Zealand may provide some key developmental experiences for the nation's top athletes.

1.2.1 What defines a rural or regional athlete?

Defining a rural or regional athlete in New Zealand is a difficult task, given that what could be classed as a small community or rural in one country may be classed as a bigger center or even urban in another. Potentially, the two most important aspects of defining a New Zealand rural or regional athlete relate to: 1) Definitions of urban/rural New Zealand; 2) The portion of the athlete's life that was spent in the rural or regional environment.

Statistics New Zealand (2017a) divides New Zealand into a number of urban and rural categories. These catagories include: main urban areas; satellite urban areas; independent urban areas; rural areas with high urban influence; rural areas with moderate urban influence; rural areas with low urban influence; highly rural/remote areas (Statistics New Zealand, 2017a). However, regardless of influence, four of these categories are clearly identified as rural (Statistics New Zealand, 2017a). On this basis, a rural athlete is somebody who comes from these rural areas as defined by Statistics New Zealand (2017a).

The length of time spent in a rural environment for an athlete to be classed as 'rural' is especially problematic. Often, individuals will move in and out of rural and urban communities for a range of social, economic, and environmental reasons including education, employment, or even lifestyle (Statistics New Zealand, 2016d). The Developmental Model of Sport Participation (DMSP) provides a useful framework (Côté, 1999; Côté et al., 2012). Of particular interest are the sampling years (childhood; 6–12 years) because this is where fundamental skills are acquired and refined (Baker, Côté, & Abernethy, 2003). In addition, a range of physiological changes also occur throughout this stage of growth and development (Smucny, Parikh, & Pandya, 2015). Therefore, for the purposes of this study, a rural athlete will be defined as someone who lived in a rural community between 6-12 years of age.

1.2.2 Why Hockey?

Field hockey is played in a large number of countries across the globe and is included in both the Olympic and Commonwealth Games (Hockey New Zealand, 2012; Watson, 2015).

New Zealand is an elite hockey nation (Hockey New Zealand, 2016) with both men's and women's teams currently ranked in the worlds's top eight teams (International Hockey Federation, 2019). Hockey in New Zealand has near-even numbers of male and female players (Hockey New Zealand, 2018). There are a large number of hockey clubs, primary schools, and secondary schools within 32 hockey associations (Hockey New Zealand, 2018; Hutchinson, Allan, & Coleman, 2016) across eight regions within New Zealand (Hockey New Zealand, 2019). Hockey lends itself to both an early specialisation pathway as well as an early sampling experience. The current player framework outlines recreational, competitive and representative pathways, all of which potentially culminate in elite success (Hockey New Zealand, n.d.).

1.3 Methodology and methods

This is a post-positivist study, which employs a qualitative descriptive approach to accurately portray the experiences as described by the participants. Semi-structured interviews with a conversational approach were used. This allowed for a degree of conversation and discussion to develop around the general questions (Baumgartner & Hensley, 2006). This inductive method also allowed participants to talk about their own experiences in their own words and to elaborate where necessary (Gratton & Jones, 2010).

The three major themes of early sport experiences, early play experiences, and the people around the athletes, were used to guide the semi-structured interviews. Data was then analysed through a process of 'thematic analysis'. This analysis method was chosen as it "organizes and describes your data set in (rich) detail" (Braun & Clarke, 2006, p. 79).

A degree of purposive sampling was required. Subjects were required to have: 1) represented New Zealand in Hockey; and 2) spent their sampling years (childhood; 6–12 years) in a rural/regional area (defined as per Statistics New Zealand, 2017a). Six current, and two former New Zealand representative hockey players were interviewed. With all subjects having represented New Zealand within the past 13 years.

1.4 Aims of the research

The aim of this research is to explore the early sport and play experiences of elite New Zealand Hockey players from rural and regional communities, with a particular focus on three areas: the early sport experiences of the athletes; the early play experiences of the athletes; and the people around the athletes as they grew and developed. Therefore the research

question underpinning this project was as follows: *What are the early sport and play experiences of elite New Zealand Hockey players from rural and regional communities?*

1.5 Structure of the thesis

Chapter one has outlined the background, context, and design of the research. The aim of the study has been presented, along with the research question and the definition of key concepts. Chapter two reviews the key literature in relation to the research topic and identifies where this current study fits within existing research. Chapter three outlines the qualitative descriptive methodology employed for this research as well as its philosophical underpinnings. Methods and data analysis are also discussed as well as important ethical considerations. In Chapter four the findings of this qualitative descriptive study are presented with key themes outlined. Chapter five discusses the key findings and relates them to existing research. Finally, Chapter six provides overall conclusions from this research and makes recommendations for future practice. It also notes the strengths and limitations of the current study and offers recommendations for further research.

Chapter 2: Literature Review

2.1 Introduction

The purpose of this research is to take a closer look at what contributes to the development of New Zealand's top hockey athletes with a particular focus on their early sport experiences, their early play experiences, and the people around them as they grew and developed. This review will examine literature on a range of topics associated with athlete development, including the influences of early experiences. It is well known that an individual's experiences will have a large impact on their development. This literature review will include an outline of athlete development followed by a discussion of what contributes to this development. The contributing factors that are identified include early sampling versus early specialisation as sporting pathways; play and its contribution to development; motivational climates; rural and regional athletes; and the sport of hockey.

2.2 Athlete development

Athlete development is a multifaceted dynamic concept, including a number of domains (i.e. physical, cognitive, etc) as well as a range of phases and stages through which athletes progress. A number of athlete development models exist in the literature (Bruner, Erickson, McFadden, & Côté, 2009; Goodway & Robinson, 2015). They range from Bloom's (1985) 'Developing Talent in Young People', through to the more recent Long Term Athlete Development models (Balyi & Hamilton, 2010; Côté & Vierimaa, 2014). Although not specifically focused on sport, Bloom's (1985) model has had a profound impact on subsequent athlete and talent development models (Bruner et al., 2009). In this model, Bloom proposes three phases through which an athlete will progress: 'the early years', an initial stage where the athlete engages with their chosen sport; 'the middle years' then follow, where the athlete commits to their sport, increases training, and specialises; this culminates in the 'later years', a perfection stage, where the athlete is completely focused on their chosen sport (Bloom, 1985). In more recent long term athlete development models, as many as seven stages have been identified, depending on whether the sport is classed as one that requires early specialisation or late specialisation (Balyi & Hamilton, 2010).

However, according to Bruner, Erickson, Wilson and Côté's (2010) appraisal of athlete development models through citation network analysis, the most prominent conceptualisation

cited in the literature is Côté and colleagues 'Developmental Model of Sport Participation (DMSP)', which identifies two major pathways to elite performance. The first is an 'early specialisation' pathway, characterised by high amounts of deliberate practice, low amounts of deliberate play, and a focus on one sport from an early age. This then leads to probable outcomes of elite performance, reduced physical health, and reduced enjoyment. The second pathway is an 'early sampling' pathway, which has three distinct developmental stages: the sampling years (childhood; 6–12 years), characterised by high amounts of deliberate play, low amounts of deliberate practice, and involvement in several sports where fundamental skills are acquired and refined; the specialising years (early adolescence; 13–15 years), where athletes narrow their focus by reducing their involvement in several sports while maintaining a balance between deliberate play and practice; and the investment years (late adolescence; 16+ years), characterised by single sport devotion where athletes' focus on one sport with high amounts of deliberate practice and low amounts of deliberate play. There is also an additional category of the recreational years (adolescence; ages 13+ years) (Baker et al., 2003; Côté, 1999; Côté et al., 2012). Regardless of the model employed, ultimately, athlete development must be holistic as it involves a complex interaction of a multitude of issues impacting on athletic opportunity and progression (Ford et al., 2011).

2.3 Contributors to athlete development

Central to athlete development is an understanding that human beings are complex dynamic systems, inseparable from and reciprocal with their environment (Davids, Button, & Bennett, 2008). Human beings are best suited to learn and develop in an implicit discovery manner, and the literature has given attention to holistically developing adaptable, resilient athletes that can make effective decisions (Brymer, 2010; Davids et al., 2008; Gorman, 2010). In addition to this, Davids, Gullich, Shuttleworth and Araujo (2017) state that "a range of personal, task and environmental constraints impinges on performance and learning during athlete development at different, related, timescales" (p. 192). Therefore, key to the development of an athlete is the environment within which they grow and develop as well as the experiences they encounter along the way.

In recent times, much has been made of the potential benefits of an unstructured early sports experience involving unstructured play (Anderson & Mayo, 2015; Balish & Côté, 2014; Bowers & Green, 2013; Brussoni, Olsen, Pike, & Sleet, 2012; Gordon, 2014; Milteer &

Ginsburg, 2012; Spinka, Newberry, & Bekoff, 2001), sampling of a range of sports (Côté & Hancock, 2016; Côté et al., 2012; Goodway & Robinson, 2015; Torres, 2015) and risk taking (Christie, Higgins, & McLaughlin, 2014; Dietze et al., 2013; Longley, 2014; Niehues, Bundy, Broom, & Tranter, 2015; Rosin, 2014; Schofield, 2011). This is highlighted further by Sport New Zealand (2016) in their latest *Talent plan 2016 – 2020* where they place 'play' and 'participation' as the essential foundations of the athlete development pathway. Further to this, Sport New Zealand sets out to dispel the 'myth' that early specialisation in sport is the only pathway to elite status (Sport New Zealand, 2016). This is encapsulated in their vision, "Develop athletes to realise their potential in Sport and in life – winning in the long run" (Sport New Zealand, 2016, p. 7). As well as fuelling the sampling/specialising debate and highlighting unstructured play as essential to development, within their five core beliefs, Sport New Zealand's latest talent plan outlines another important aspect for consideration within holistic athlete development. This revolves around what is often termed the 'motivational climate' and encompasses the significant people and relationships that contribute to this climate (Bebetsos, Zetou, & Antoniou, 2014; Benczenleitner et al., 2013; Curran, Hill, Hall, & Jowett, 2015; Ibrahim, Jaafar, Kassim, & Isa, 2016; MacDonald, Côté, Eys, & Deakin, 2011; O'Rourke, Smith, Smoll, & Cumming, 2014; Poux & Fry, 2015). Sport New Zealand highlight this in their first two core beliefs: "athlete's needs come first" and "working together for collective impact" (Sport New Zealand, 2016, p. 7).

2.3.1 Early specialisation vs early sampling

> For the vast majority of athletes and sports, earlier is not better. When athletes narrow their focus onto one sport too early, they risk burn-out, over-use injuries and lessened motivation over time. When athletes have diverse sporting experiences they develop a broader range of transferable skills and greater creativity and decision-making capabilities.
>
> (Sport New Zealand, 2016, p. 6)

A major point of contention within athlete development is the notion of early specialisation versus early sampling (Balish & Côté, 2014; Bruner et al., 2009; Bowers, Green, Hemme, & Chalip, 2014; Larson, Young, McHugh, & Rodgers, 2019; Phillips, Davids, Renshaw, & Portus, 2014; Renshaw, 2010). Côté et al. (2012) define early specialisation as a deliberate practice model focusing on specialising in one sport from an early age. Early sampling/diversification, on the other hand, can be defined by an athlete specialising later in life after participating in a variety of sports with lower levels of deliberate practice and higher levels of deliberate play (Côté et al., 2012). For the past few decades, athlete development and talent development has

perpetuated an early specialisation pathway (Anderson & Mayo, 2015; Côté et al., 2012).

Popularised by Gladwell's (2008) book, *Outliers: The story of success,* the dominance of this pathway is largely due to the notion of 10,000 hours of deliberate practice leading to expertise. Ericsson, Krampe and Tesch-Roemer's (1993) study into the role of deliberate practice in the acquisition of expert performance has largely been credited for this notion, however, Ericsson (2013) subsequently points out that their research has been misinterpreted. In their study, Ericsson et al. (1993) investigated the role of deliberate practice in the field of music. In addition, its findings suggested, among other things, that expert violinists spent more time engaged in deliberate practice than those who were deemed non-expert, and there was no specific mention about 10,000 hours of practice (Ericsson, 2013). Despite, its contentious roots, specialising early in a chosen sport has been a proven pathway for athlete development (Anderson & Mayo, 2015; Helsen, Starkes, & Hodges, 1998), particularly in sports where peak performance tends to happen pre physical maturity (e.g. gymnastics). In such sports, specialising early appears to be a socially constructed prerequisite (Anderson & Mayo, 2015; Goodway & Robinson, 2015). The necessity to specialise early has been aided by the ever increasing prevalence of adult models of professional elite performance that dominate youth sporting practice (Bergeron, 2010). However, as this early specialisation approach has taken centre stage, a number of pitfalls have begun to be identified alongside an increased advocacy for the benefits of a more diverse approach to early sports participation. In their article on the consequences of single sport specialisation in the paediatric and adolescent athlete, Smucny et al. (2015) note that specialising too early can be detrimental both physically and emotionally. They highlight metabolic cost and micro trauma on the developing body as huge risks alongside burnout and long term consequences in adulthood (Smucny et al., 2015). Goodway and Robinson (2015) reiterate these overuse injury notions and add the proposition that the early specialiser may not achieve full adult growth. Specialising early, although often associated with a faster peak in performance, is linked to increased injury, loss of motivation, and less adherence to sport (Fransen et al., 2012). A single sport focus may also foster isolation from age and sex peers, immersing a youngster in a complex world regulated by adults, and can lead to overuse injuries (Malina, 2010). Early specialisation increases burnout, increases overuse injuries and reduces enjoyment (Côté & Hancock, 2016). Not surprisingly,

the acknowledgement of these pitfalls is not new, as Torres (2015) quotes Aristotle's complaint that:

> the evil of excessive training in early years is strikingly proved by the example of the Olympic victors; for no more than two or three of them have gained a prize both as boys and as men; their early training and severe gymnastics exercises exhausted their constitutions. (p. 304)

Smith (2015), in her historical overview of early sport specialisation, also notes that starting too early can lead to burnout, loss of motivation, and/or emotional stress.

It is important to acknowledge the complexities of these pitfalls. In their study of Canadian competive swimmers between the ages of 12 and 17, Larson et al. (2019) set out to add emprical evidence to the literature regarding early specialisation and burn out or drop out. Their findings highlighted that burn out and drop out may not neccesarily result from early specialisation, provided the appropriate positive conditions, such as enjoyment, autonomy and competency are also present (Larson et al., 2019).

In an effort to minimise the potential pitfalls of early specialisation, recent research has attempted to highlight the benefits of a more diverse early sporting experience. Côté et al. (2012) revisit the seven postulates of early involvement in sport that Côté et al. (2009) had previously outlined:

> ***Postulate 1:*** *Early diversification (sampling) does not hinder elite sport participation in sports in which peak performance is reached after maturation*
>
> ***Postulate 2:*** *Early diversification (sampling) is linked to a longer sport career and has positive implications for long-term sport involvement*
>
> ***Postulate 3:*** *Early diversification (sampling) allows participation in a range of contexts that most favorably affects positive youth development*
>
> ***Postulate 4:*** *High amounts of deliberate play during the sampling years build a solid foundation of intrinsic motivation through involvement in activities that are enjoyable and promote intrinsic regulation*
>
> ***Postulate 5:*** *A high amount of deliberate play during the sampling years establishes a range of motor and cognitive experiences that children can ultimately bring to their principal sport of interest*
>
> ***Postulate 6:*** *Around the end of primary school (about age 13 years), children should have the opportunity either to choose to specialize in their favorite sport or to continue in sport at a recreational level*
>
> ***Postulate 7:*** *Late adolescents (around age 16 years) have developed the physical, cognitive, social, emotional, and motor skills needed to invest their effort into highly specialized training in one sport*
>
> (Côté et al., 2012, p. 276)

Support for these postulates continues throughout the literature, highlighting elite athletes that have benefitted from such a background (Smith, 2015; Weiss, 2015). Hodge, Pierce, Taylor and Button (2012), in their study on talent development in New Zealand sporting contexts, interviewed a range of current and former New Zealand elite athletes as well as their parents and coaches. This study found that engagement in a wide range of sports and physical activities at an early age was hugely beneficial to the athletes' subsequent development in a specific sport (Hodge et al., 2012). More specific benefits of a sampling pathway have also been highlighted by other researchers. These include the development of essential fundamental movement skills (Fransen et al., 2012; Goodway & Robinson, 2015; Phillips et al., 2014; Thomas & Wilson, 2014); increased enjoyment (Côté & Hancock, 2016); access to a range of sports (Goodway & Robinson, 2015); maintained motivation later in life (Côté & Hancock, 2016; Goodway & Robinson, 2015); increased levels of self-determination (Moesch, Hauge, Wikman, & Elbe, 2013); and the development of fitness (Fransen et al., 2012). Torres (2015) has a more philosophical approach, highlighting the adult responsibility of keeping options open for their children.

Despite the popularity of early specialisation (Côté et al., 2012) and the evidence that this is a viable pathway to success for some athletes (Anderson & Mayo, 2015; Helsen et al., 1998), the literature suggests that there is an alternative that potentially better meets the needs of the athlete. At the very least, this evidence suggests the need to embrace a range of pathways to success and to ultimately work towards one that best meets the needs of the athlete.

2.3.2 Play

Sport New Zealand (2016) indicate that encouragement of deliberate play, creativity and decision making are key elements within their vision, and they identify 'play' and 'participation' as the essential foundations of the athlete development pathway (Sport New Zealand, 2016). However, "play is a roomy subject, broad in human experience, rich and various over time and place, and accommodating pursuits as diverse as peekaboo and party banter, sandlot baseball and contract bridge, scuba diving and scrabble" (Eberle, 2014, p. 214). Play can be a difficult term to define; deliberate play, risky play, real play, free play, unstructured play -- these terms are all associated with play and are sometimes used interchangeably, but all have slightly different roots. Whatever the term used, play is generally for its own sake (Eberle, 2014;

Huizinga, 2002) and, in New Zealand, play is closely linked to ideas of freedom and creativity (White et al., 2009).

The benefits associated with play are numerous, ranging from learning societal roles, norms, and values and developing physical and cognitive competencies, creativity, self-worth and efficacy (Brussoni et al., 2012; Milteer & Ginsburg, 2012). Play enables young children to learn through cooperation, imitation, and trial and error to gain new insights (Fatai, Faqih, & Bustan, 2014), facilitates the development of decision making skills (Berry, Abernethy, & Côté, 2008), provides training for the unexpected, and develops skills for cooperation (Gordon, 2014; Spinka et al., 2001). In addition, the benefits associated with 'outdoor' play include developing motor fitness and abilities, environmental awareness and navigation competencies, as well as promoting creativity (Brussoni et al., 2012; Taylor & Kuo, 2006). Play is deemed so important to child development that it is included in the United Nations Convention on the Rights of the Child (Brussoni et al., 2012).

2.3.2.1 Risk taking

What is risky play? As stated earlier, play has many forms and, although it is not always the case, risk taking can be an essential element of play. Sandseter (2009) provides a template of 'risky' play categories including: great heights; high speed; dangerous tools; dangerous elements; rough-and-tumble; and disappear/get lost. Walters, Duncan, McPhee, Atkins and Millar (2018) add two additional categories of 'play with loose objects' and 'messy play' to form their definition of real play. Risky play is often associated with injury or even death (Brussoni et al., 2015), but like other forms of play, risky play too has a number of benefits that have been identified. Brussoni et al. (2015) note that a number of studies support the importance of risky play for children's development, learning, mental health, and physical health (Brussoni et al., 2012; Engelen et al., 2013; Sandseter & Kennair, 2011). This is supported further by Rosin (2014), who states that taking risks builds self-confidence. Dietze et al. (2013) add to this by positively associating risk taking with developing critical thinking skills, physically active lifestyles and self-regulation skills, which all help to build self-confidence and self-esteem. Christie et al. (2014) support this further in their evaluation of a Scottish outdoor learning programme, where they found that almost all pupils noted improvements in their self-confidence and ability to cope in social situations. In addition, Niehues et al. (2015) concluded that risk and uncertainty are valuable and necessary contributors to children's healthy

development of happiness, well-being and resilience. Offering children the opportunity to take risks enables them to learn important risk-assessment skills and to take responsibility for their own safety (Bourke & Sargisson, 2014). Risk and adventure is not just good for the health of children, it is essential as it develops their ability to deal with risk (Schofield, 2011). Learning to deal with risk allows one to look at the opportunities in a situation, not just the threats (Longley, 2014).

Despite the clearly identified benefits, in recent times, play, and particularly outdoor play, is on the decline (Barlow, 2015; Bowers et al., 2014; Brussoni et al., 2012; Clements, 2004; Hofferth & Sandberg, 2001; Karsten, 2005; Longley, 2014; Prince, Allin, Sandseter, & Ärlemalm-Hagsér, 2013; Schofield, 2011; Valentine & McKendrick, 1997). In its place are more formal, adult-led activities. Clements (2004) surveyed mothers from the United States about their outdoor play experiences in their youth in relation to their children's outdoor play experiences. The vast majority of the mothers agreed that the children of today play outside less than they did in their youth. Karsten (2005) supports this in a study of the urban centre of Amsterdam, which compared children's use of space in the 1950's and 60's to that of the present day. The key findings indicated a dramatic drop in child-led outdoor play, in favour of more indoor play or adult supervised scenarios. These findings are reflected closer to home in New Zealand urban centres. Recently Walters et al. (2018) carried out a case study involving urban families in an effort to explore the issues behind this decrease in outdoor 'real play'.

This decline has, in turn, led to decreased opportunity to learn about risks (Barlow, 2015; Longley, 2014; Schofield, 2011). The blame for this decline has been levelled at a range of factors including changing technology and changing ways of life (Barlow, 2015; Longley, 2014). More recently the role of parents has been called into question, and it would appear that parents have a significant impact. Ungar (2009) states that "overprotective parenting in low-risk environments may have negative consequences for the psychosocial development of children and youth" (p.258). Brussoni and Olsen (2013) note that parenting behaviour that prevents children from taking risks resulted in children lacking self-confidence and crucial life skills. In addition, Çelik, Halmatov and Sariçam (2012), in their study of parental attitudes to child rearing, note that over protective parenting can result in dependent children that show emotional jealousy and have self-confidence problems. So, what impacts on a parent's protective parenting style? Niehues et al. (2015) looked into parents' perceptions of risk and

how this influenced their children's play and found that how much parents focused on the safety of their children was related to the risk those parents had experienced in their own lives. Further to this, Cloutier, Bergeron and Apparicio (2011) found that parents' perceptions of risk for their child was closely related to the age of the child. The age relationship is confirmed further by Petrass and Blitvich (2013) in their observations of parents and children at public pools and playgrounds. In addition, Kindleberger Hagan and Kuebli (2007) found that gender played a role in over-parenting as daughters were monitored far more closely than sons. A multitude of comments have been made about a more dangerous world, fears of losing children, or children getting hurt, and even fears of being viewed as an incompetent parent (Longley, 2014; Niehues et al., 2015; Rosin, 2014; Schofield, 2011). Adding to the complexity, Brussoni and Olsen (2013) note that family, social and situational factors shaped fathers' views on the topic. A loss of a 'sense of community', where parents feel comfortable to allow their kids to explore and roam has also been highlighted as a potential reason (Walters et al., 2018). However, are these attitudes the same for rural and urban children? Çelik et al. (2012) looked at the difference in attitudes based on demographics and living conditions in Turkey and found that parents who lived in urban areas were more over-protective than parents who lived in rural areas.

Clearly, play in its various forms is immensely beneficial and there is a range of reasons for the evident decrease in children's participation in these valuable forms of play. However, it is important to note that the majority of the literature refers to the benefits of play and risk taking in relation to youth development rather than athlete development specifically. Although one cannot assume that youth development correlates directly with athlete development, the notions associated with youth development are congruent with those linked to holistic athlete development. Where play appears to have its strongest correlations to athlete development is with regard to Côté's (1999) notion of 'deliberate play', which refers to modified, unstructured versions of sport, or 'pick up' games. Bowers and Green (2013) note that unstructured sport is often treated as play with no real value, even though a range of benefits from such practice have been identified. In their study into how children derive meaning from unstructured and organised settings, Bowers and Green (2013) found that playing in unstructured sports settings had positive repercussions for the athletes in a range of ways, including comfort and confidence to be creative and to take risks, all of which informed the athlete's performance in

more structured adult-led settings. Likewise, Balish and Côté (2014), in their integrated case study of a small Canadian community, identify participation in youth-led unstructured sports, rather than adult-organised sports as a contributing factor to the athletic success of the community. Parents in this study showed minimal safety concerns for their children, assured that community members would look out for their children and keep an eye on them, which allowed the children to freely roam and play in the community (Balish & Côté, 2014).

It is clear from the literature that the early play experiences of an individual have a powerful impact on their development. In turn this impacts directly on their development as an athlete, therefore these experiences are essential to consider.

2.3.3 Motivation

What motivates athletes to play and compete is an interesting topic of discussion and one that is hugely dynamic. In New Zealand, the motives for children's engagement with sport can include fun, being with friends, keeping fit, learning new things and fair play (Walters, Schluter, Thomson, & Payne, 2011). Likewise, in other parts of the world, it has been reported that adults engage in sport for enjoyment, health benefits and social benefits, with the addition of competition (Bailey, 2012; Kilpatrick, Hebert, & Bartholomew, 2005; Lim et al., 2011). Success has also been attributed to continuing engagement with sport (Benczenleitner et al., 2013; Rottensteiner, Tolvanen, Laakso, & Konttinen, 2015). With this in mind, the following section will look at what motivates an athlete and the factors around them that contribute to this motivational climate.

2.3.3.1 Fun and enjoyment

Fun and enjoyment are very closely linked; often, to enjoy oneself is to have fun and when one is having fun, one enjoys what one is doing. Fun is quoted by children and adults alike as a major reason for their participation in sport and physical activity (Bailey, 2012; Bailey, Cope, & Pearce, 2013; Bergeron, 2010; Walters et al., 2011), and it is also identified as a defining feature of play (Eberle, 2014). However, fun can be defined in a range of ways and is determined by a number of factors. In their work on the 'Fun Integration Theory', Visek et al. (2015) asked youth soccer players, parents and coaches to rate ideas associated with fun. The study identified 81 specific determinants of fun, within 11 dimensions describing the four fundamental tenets of fun (contextual, internal, social, and external). What these findings show

is that, although a simple term, fun is a complex notion meaning different things to different people. Despite this, the presence of fun or lack of fun often determines whether an individual will embark on an activity or continue to participate. Likewise, enjoyment has similar associations; often the reason one person enjoys something is different from the next, however, like fun, enjoyment is a major topic of discussion within sport literature. Increased or decreased levels of enjoyment are quoted as probable outcomes of the aforementioned early sampling or early specialisation pathways (Côté & Hancock, 2016; Côté et al., 2012). The importance of enjoyment in sports participation is supported further by Phillips et al. (2014). In their investigation of the perceptions of expert cricket players and coaches on the acquisition of expertise in fast bowling, they found that it was important to maintain an enjoyment climate in early development (Phillips et al., 2014). Bailey et al. (2013) concur in their review of literature around children's motivations for taking part in sport, where they identify fun and enjoyment as one of five primary factors mediating children's participation. Interestingly, they also note that children perceive fun and enjoyment in different ways. Closer to home, Hodge et al. (2012) highlight the importance of enjoyment in their interviews with elite New Zealand athletes. Despite interpretive differences, fun and enjoyment remain a key motivation for participation in sport and physical activity.

2.3.3.2 Self determination

In line with athlete-centred coaching approaches (Kidman & Hanrahan, 2010), autonomy and self-determination can often have a considerable impact on athletes' motivations. Self-determination theory (SDT) is concerned with understanding actions that are autonomous and volitional, meaning that people have a full sense of choice in what they are doing (Deci & Ryan, 2008). SDT proposes that all humans need to feel competent, autonomous, and related to others (Deci & Ryan, 2000). If the environments that people are involved in allow these human needs to be met, then optimal motivation and positive psychological, developmental and behavioural outcomes will ensue (Ryan & Deci, 2000). The relevance of SDT to youth sport is supported by Bailey et al. (2013), who in their review of current literature, make specific reference to SDT and the importance of coaching environments that satisfy the basic human psychological needs in keeping children motivated to sustain their involvement in sport. Moesch et al. (2013) investigated the career paths and the related motivational and volitional factors of Danish elite and near elite team sport athletes. This study found that the elite athletes tended to

start their careers later than their near elite counterparts, but importantly, these elite athletes also demonstrated higher levels of self-determination.

2.3.3.3 Mind set

Closely linked to these notions of self-determination is the concept of 'mind sets'. Dweck (2012) outlines two distinct ways in which people think about themselves, which have come to be known as 'mind sets'. Those who believe their qualities are fixed or unchangeable are referred to as having a 'fixed' mind set and those who believe they can cultivate or improve their abilities through their efforts are thought to have 'growth' mind sets (Dweck, 2012). An athlete's success is often linked to their character, which in turn reflects their mind set. Importantly, if an athlete has a growth mind set, they are more likely to find success in learning and improvement rather than just winning (Dweck, 2012). The mind set of an athlete could therefore be a large factor in determining whether an athlete finds lifelong enjoyment in their sport.

2.3.3.4 Success

How an athlete defines success is also an important consideration. Like 'fun' and 'enjoyment,' success can mean different things to different people. The aforementioned 'mind set' of an athlete can be a determining factor in this definition (Dweck, 2012). Success in turn can have a powerful impact on the motivation of an athlete. In their study of the motivations of elite hammer throwers in Hungary, Benczenleitner et al. (2013) link elite success and victories to maintained engagement in competitive sport. A study of external and internal sport motivations of young adults by Bollok, Takacs, Kalmar and Dobay (2011) found that teenagers placed high importance on achievements and good results, particularly male athletes who highlighted competition, contest and victory as major motivating factors for their sporting pursuits. With regard to what motivates children to participate in sport, Bailey et al. (2013) highlight the linkages between success and perceived competence in increasing motivation. Rottensteiner et al. (2015) reiterate the linkages between perceived competence and motivation in relation to sustained participation in youth sports, contending that higher perceived competence resulted in higher levels of relative autonomous motivation toward sports.

2.3.3.5 People

"Whatever potential we may have when we come into the world, the socio-emotional environment of our earliest relationships forms the soil in which this potential either blossoms or withers" (Gordon, 2014, p. 238). Essential to holistic athlete development is the socio-emotional environment or climate that surrounds them, which can be termed the 'motivational climate' and can include coaches, parents, siblings and peers as well as the athlete's greater community (Becker & Solomon, 2009; Curran et al., 2015; MacDonald et al., 2011; Domingues & Gonçalves, 2013; Poux & Fry, 2015; Storm et al., 2014). This climate is immensely important and has been recognised by Sport New Zealand which acknowledges the need to both "support [the] development of the whole person by taking key learning from sport and using it in other aspects of athletes' lives", and to "realise the importance of parents/caregivers, peers and significant others in providing quality guidance and support for developing athletes" (Sport New Zealand, 2016, p. 8).

There is no shortage of evidence highlighting all elements of this 'motivational climate' and its sizable impact on the success of athletes across the globe. Ibrahim et al. (2016) in their study of Malaysian student athletes found that perceived motivational climate had a direct effect on perceived success. Storm et al. (2014) report that elite Danish athletes identified a number of 'key' people in their career that had important positive and supportive influences. Most often this key person was a coach, but parents, siblings and peers are also involved (Storm et al., 2014). More specifically, Poux and Fry (2015) note that American division one athletes may benefit from having a caring and task-involving team climate created by coaches, in developing them as holistic individuals. Benczenleitner et al. (2013), in their study of Hungarian elite hammer throwers, highlight the importance of the coach in motivating athletes. Phillips et al. (2014) also note that the approaches employed by coaches and the environment they create have a substantial impact on the development of athletes. Fraser-Thomas and Côté (2009) argue that coaches can have a positive effect when they demonstrate belief in their athletes, make good connections, communicate well and provide constructive feedback, in addition to being good overall role models. Conversely, when these behaviours are not present, coaches can have a negative effect on the athlete's experiences.

Much like the aforementioned impact of parents on children's play experiences, parents also play one of the largest roles in an athlete's motivational climate. O'Rourke et al. (2014) in

their study of American swimmers found that, "parent-initiated motivational climate was a significant predictor of self-esteem, trait anxiety, and autonomous regulation at end-season over and above coach-initiated motivational climate" (p. 404). Bebetsos et al. (2014) in their study of Greek athletes found that the type of sport, level of sport, and competition experiences were influenced by the parents of the athletes. Holt and Dunn (2004) note the essential emotional, informational and practical support provided by the parents of Canadian and English soccer players. In Poland, Domingues and Gonçalves (2013) also highlight the important role of parents in sport participation in highly competitive environments. Parents play a dynamic, ever changing role; Côté's (1999) paper notes that parents play a significant and changing role through the different stages of the developing athlete, ranging from introducing their child to sport in the 'sampling years', through to providing financial help and fighting setbacks in the 'specialising' and 'investment' years (Côté, 1999). These sentiments are echoed by Sukys, Majauskienė, Cesnaitiene and Karanauskiene (2014) who found causal links between parents' exercise habits and children's participation in physical activity.

Tangible support from parents can come in the form of time, finance and transport. When looking at parenting in relation to children's sports participation, Wheeler and Green (2014) note that parents were willing to invest vast amounts of time, money and energy into their children's sport due to the perceived benefits it produced for their children. Wolfenden and Holt (2005) found that the parents of elite junior tennis players were key in providing tangible support such as transport and finance alongside emotional and informational support.

However, it is important to note that these more tangible forms of support can also place large amounts of stress on the family unit. Staying with tennis, Harwood and Knight (2009) found that financial burdens and time commitments were among the key stressors identified by tennis parents. Dunn, Dorsch, King and Rothlisberger (2016) found that higher levels of financial investment by parents in their children's sport resulted in higher levels of perceived parental pressure for the athlete and decreases in the children's enjoyment of, and commitment to, the sport. Likewise, less tangible forms of parental support are also not always positive. Dorsch, Lowe, Dotterer and Lyons (2016) in their study of parental involvement with NCAA Division one athletes found that parents played a huge role in promoting the academic self-efficacy and athletic satisfaction of their offspring but they had a negative impact on their children's emotional and functional independence.

With regard to peer influence, sport is a space where close relationships can be built on common interests, relationships can be formed with different aged peers, and opportunities for role modelling and leadership present themselves (Fraser-Thomas & Côté, 2009). Likewise, MacDonald et al. (2011) report that an environment encouraging peer affiliation and personal achievement can result in positive development of youth athletes.

Both Balish and Côté (2014) and Bowers and Green (2013) found that community support -- which perhaps encapsulates all elements of the 'motivational climate'-- played a huge role in the development of successful athletes. Notably, both of these pieces of research were based in smaller communities, one a small town (Balish & Côté, 2014) and the other a suburb of a greater metropolis (Bowers & Green, 2013). These papers indicate the significant effect of smaller communities on the motivational climate of an athlete.

As noted earlier, athlete development is complex and multifaceted. The people around an athlete can have a significant impact on the motivational climate within which the athlete operates. Ames (1992) outlines two types of motivational climates: a 'mastery' climate, characterised by a focus on individual effort and improvement; and a 'performance' climate, characterised by viewing success relative to others. The people around an athlete, including parents, siblings, coaches, peers and even community members, play a large role in determining whether a climate will have a 'mastery' or 'performance' focus. In turn, this focus will have a major impact on the outcomes of the athlete. A 'mastery' climate is linked to more favourable sporting engagement, and is consistently associated with increases in perceived competence, self-esteem, objective performance, intrinsic forms of motivational regulation, affective states, practice and competitive strategies and moral attitudes, and the experience of flow (Hastie, 2015; Harwood, Keegan, Smith, & Raine, 2015).

2.4 Rural and regional athletes

Moving outside of the peer reviewed academic literature, according to Rasmus Ankersen (2012), there are a number of areas or 'goldmines' across the globe that consistently produce top athletes. More often than not these 'goldmines' are not large urban centres with top training facilities, but smaller, independent and often isolated communities, with minimal equipment (Ankersen, 2012). Clearly there is more to being a top athlete than access to the best coaches and training facilities. Ankersen (2012) identifies 'mind set' and 'hunger' as two key contributing

factors to sporting success, noting that money and facilities cannot guarantee success: "…success is not about facilities, it's about mindset" (Jamaican Sprint Coach Steven Francis as cited in Ankersen, 2012, p. 180). In the words of Russian tennis legend, Olga Morozova, "…you can't buy yourself hunger" (as cited in Ankersen, 2012, p. 244). Is there a motivational climate created in smaller communities that breeds a resilient, adaptable and hungry mind set? Or is it more to do with what is happening within these communities? Some of the questions Ankersen poses are addressed in recent studies. Balish and Côté (2014) found that the young athletes in a small athletically successful Canadian community had spent large amounts of time participating in youth-led sporting activities that were mostly outdoors. These activities were primarily with mixed age groups and, in addition these youth tended to play together and compete together as they progressed up through the age groups. The study also identified deep family roots in the community and stability growing up as key factors, with the community placing value in sport, focusing at a young age on development and participation rather than winning with an early sampling mentality (Balish & Côté, 2014). This is supported further by Bowers and Green (2013) who investigated how pre-teen boys in a sport centric community derive meaning from their structured and unstructured sports experiences. They emphasise the importance of the relationship between unstructured and structured sports experiences in creating the holistic all-round athlete. In New Zealand, Hodge et al's (2012) interviews with past and present elite national athletes revealed that early involvement in a diverse range of sports, and not early specialisation, was a common denominator. This begs the question: is there a link between smaller communities and these athlete development characteristics?

New Zealand is a relatively young nation, with a comparatively small population. Even major urban centers are small by global standards, yet New Zealand excels on the world sporting scene. In the recent Olympic Games, New Zealand finished with a total of 18 medals, with the third most medals per capita of any nation involved (Statistics New Zealand, 2016c). So, what is the key to this success? Is there something in the smaller communities and what they encapsulate? Is the sporting success due to what is happening in these communities or is it all about location and people? Clearly, an investigation into this topic is warranted.

Living in a global world of ever increasing urbanisation, space is at a premium, population growth is inevitable, and smaller communities are being subsumed by sprawling urban centers. For example, recent unitary plans of major urban centers (Auckland Council, 2016), as well as

smaller local councils (Whangarei District Council, 2016) reflect changes to accommodate predicted housing requirements. These changes propose an increase in housing density in an ever increasing reduction in green space (Auckland Council, 2016; Whangarei District Council, 2016). This sprawling urbanisation has created an increasingly blurry line between rural and urban living and this is reflected in the current Statistics New Zealand (2017a) urban/rural profile: "there is no internationally recognised definition of a 'rural' area. Rural areas have traditionally been residual areas not included in the urban definition" (para. 9). Statistics New Zealand currently divides urban into three categories: main urban areas; satellite urban areas; and independent urban areas. Rural constitutes four categories: rural area with high urban influence; rural area with moderate urban influence; rural area with low urban influence; highly rural/remote area (Statistics New Zealand, 2017a).

Despite this increasingly blurry division and ever expanding influence of urban centres, New Zealand still has a large portion of the population living outside major urban centres and their satellites. Approximately 25% of New Zealanders live outside the main centers and 14% live rurally (Poot, 2012; Statistics New Zealand, 2016b). These general population statistics correlate with the hometowns of New Zealand's top athletes. For example, the birthplaces of New Zealand's recent Rio Olympic athletes show that approximately 82% hail from main urban and satellite urban communities and 18% from outside these areas. However, an examination of the birthplaces of the medal-winning athletes reveal that 30% hail from areas outside the main urban and satellite urban (New Zealand Olympic Committee, 2016; Statistics New Zealand, 2016a). Granted, birthplace may not be the best indicator of where one spent one's formative years, but one could also argue that some of these athletes grew up in even more remote rural areas surrounding these small town centers.

New Zealand is a successful sporting nation, and some of the most famous sporting names hail from rural roots: for example, Jack Lovelock (1936 Olympic champion in the 1500 metres) is from Crushington, a small mining settlement on the West Coast of New Zealand's South Island while Sir Murray Halberg (1960 Olympic gold medallist in the 5000 metres) was born in Eketahuna, a small rural service town in the lower North Island (Hurley, 2012). Indeed, in the lead up to the Rio Olympics, *The New Zealand Herald* highlighted New Zealand's top Olympic towns. Three out of the top 10 towns and two out of the top five towns were not main urban or satellite urban communities (Smith, 2016). There are similar findings globally. Lidor, Arnon,

Maayan, Gershon and Côté (2014) found that, in relation to elite Israeli female ballgame players, growing up in a very small place was an advantage for volleyball players, and growing up in a medium city was an advantage for basketball and handball players. Côté, MacDonald, Baker and Abernethy (2006) similarly found an over-representation of smaller cities in their investigation of the birthplace of professional athletes across the United States and Canada. Such findings prompt a range of questions: will the continued urban sprawl come at a cost to sporting prowess? Will the decrease in regional living within New Zealand's smaller communities impact on the nation's sporting success? Is there something to be noted and preserved in the practices of these small communities? Given that it is harder to stay successful than it is to become successful in the first place (Ankersen, 2012), the need to understand the causes of these trends is apparent.

2.5 Hockey

Field hockey is a global sport: it has a World Cup and is included in both the Olympic and Commonwealth Games (Hockey New Zealand, 2012; Watson, 2015). With an established elite status, New Zealand has had hockey teams in the Olympics for decades, dating back as far as 1954 for the men and 1984 for the women (Hockey New Zealand, 2016). Currently, both New Zealand's men's and women's teams are ranked in the top eight in the world, where they have been for a number of years (International Hockey Federation, 2019).

From a sociological perspective, field hockey in New Zealand is a sport that does not tend to suffer from gender stereotypes. In 2018 there were approximately 59,558 registered winter hockey players in New Zealand, of which 29,406 were male and 30,152 female (Hockey New Zealand, 2018). In addition, hockey is a team invasion game characterised by invading territory to make space on attack, containment of space on defence and the use of a goal or similar target to score (Bunker & Thorpe, as cited in Kirk & MacPhail, 2002). Such team invasion games are at the core of the New Zealand sporting psyche. For example Rugby and Netball are traditionally regarded as our 'national sports' (New Zealand Immigration, 2019).

Originally played on grass fields, artificial hockey surfaces (turfs) were first introduced to hockey in New Zealand in the 1970s, having an immediate impact on the speed and accuracy of the game (Watson, 2015). Hockey has a healthy following in New Zealand: there is now a large number of hockey clubs, primary schools, and secondary schools, within 32 hockey

associations (Hockey New Zealand, 2018; Hutchinson et al., 2016) across eight regions which include Northland, North Harbour, Auckland, Midlands, Central, Capital, Canterbury and Southern (Hockey New Zealand, 2019). Despite hockey achieving a wide geographical reach, the distribution and quality of resources across these regions differ. For example, the update by Hutchinson et al. (2016) into Hockey New Zealand's facility strategy indicates that with turfs being largely concentrated near the major centres of Auckland and Canterbury, the quality of playing surfaces across the country's regions is discrepant.

Hockey is a sport that traditionally lends itself to both an early specialisation pathway as well as an early sampling experience. The current player framework for hockey in New Zealand is illustrated in Figure 1 below. This framework (Figure 1) clearly illustrates a number of pathways that an athlete can take to achieve elite success or to simply play recreationally. In addition the early 'small sticks' experience is reflective of some of the characteristics of Côté's (1999) sampling years, for example 'fundamental skill development' (Hockey New Zealand, n.d.).

BLACK STICKS – NATIONAL TEAMS National Squads/National Development Squads		
NHL – REGIONAL REPRESENTATIVE TEAMS		
U21 JUNIOR BLACK STICKS NATIONAL TEAMS U21 National Squads/U21 National Tournaments		
U18 NATIONAL TEAMS Tiger Turf New Zealand Junior Academy Squads/U18 National Tournaments		
PLAYER RECREATIONAL	**PLAYER COMPETITIVE**	**PLAYER REPRESENTATIVE**
MASTERS (Summer, Club, Business House) 35+ years	**MASTERS** (Club) 35+ years	**NATIONAL MASTERS TOURNAMENT** (National Masters Tournament, Trans-Tasman)
ADULT (Summer, Club, Business House) 19+ years, 6 v 6	**ADULT** (Club) 19+ years	**NATIONAL SENIORS TOURNAMENT**
YOUTH (School, Club, Boys, Girls, Mixed) 13-18 years, 6 v 6	**YOUTH** (School, Club) 13-18 years	**NATIONAL U15**
SMALL STICKS – KWIK STICKS U13 years, 6 v 6, ½ field	**SMALL STICKS – KWIK STICKS** U13 years. 11 v 11, full field	**NATIONAL U13**
SMALL STICKS – KIWI STICKS U11, 6 v 6, ¼ field	**SMALL STICKS – KIWI STICKS** U11, 6 v 6, ½ field	
SMALL STICKS – MINI STICKS U9, 6 v 6, 1/8 field	**SMALL STICKS – MINI STICKS** U9, 6 v 6, ¼ field	
SMALL STICKS – FUN STICKS U6, Fundamental Skills, 4 v 4, 1/8 field		

Figure 1. Player Framework. Adapted from Hockey New Zealand (n.d.).

2.6 Conclusion

This literature review has discussed the concept of athlete development and its contributing factors. A number of athlete development models have been identified and outlined including the Developmental Model of Sport Participation (DMSP), and Long Term Athlete Development models. As key contributing factors to athlete development, early sampling and early specialisation as sporting pathways were discussed, and the review highlighted the potential benefits of a more diverse early sports experience. This chapter has also outlined the benefits of unstructured and risky play and noted the recent decline in such practices. In addition, this review has also discussed the motivations of an athlete and the key people who influence this motivational climate, of which family and coaches are identified as major contributors. The experiences of athletes from more rural and regional areas were discussed, highlighting the unique nature of these smaller communities and their potential impact on athlete development. Finally, the sport of field hockey has been outlined. Clearly, the development of an athlete is shaped by a range of factors, from the intrinsic qualities of the athlete themselves (Davids et al., 2008), through to the experiences they have, to the physical, cultural and social environments around them. All of these elements shape the athlete as they grow and develop. In New Zealand there are very few studies investigating the links between the early experiences of an athlete and their success later in life. As the early years form the foundations from which an athlete can then flourish, it is essential to consider the experiences that occur in these early years to better understand the entire athlete development pathway. Therefore, the literature reviewed in this chapter supports the need to investigate the early sport and play experiences of New Zealand's elite athletes to aid greater understanding of quality athlete development practices.

<center>**Chapter 3: Methodology**</center>

3.1 Introduction

Research requires careful consideration of methods. These methods need to be ethically suitable, fit the researcher's ontological, epistemological and paradigm views, and perhaps most fundemantally, generate data suitable for answering the research questions.

The following section outlines the philosophical underpinnings and methodological framework of a qualitative descriptive study, the approach employed by this project. The research paradigm within which qualitative descriptive research is positioned will be briefly outlined followed by a reflexive declaration of the epistemological position held by the researcher. This chapter then outlines qualitative descriptive methodology and discusses the methods employed in this project including the research design, and the process for participant recruitment, data collection and data analysis. Finally, ethical considerations will be presented with elements of rigour and trustworthiness also covered.

3.2 Research Paradigm

The qualitative descriptive approach employed in this study sits within the post-positivist paradigm. Simply put, a research paradigm is a "scientific world view" (Giddings & Grant, 2006, p. 4), and can be defined as "axiomatic systems characterised essentially by their differing sets of assumptions about the phenomena into which they are designed to inquire" (Guba & Lincoln, 1982, p. 233). Scholars often arrive at different answers to the same questions, and this is largely related to their research paradigm or the theoretical approach underpinning the question (Collins & Jackson, 2007).

To understand the post-positivist paradigm, it is useful to examine its origins. Positivism, also known as scientific, rationalistic, or empiricism (Henderson, 2011), has been an enduring part of western thinking for centuries (Grant & Giddings, 2002). Positivism emphasises the importance of objectivity and empiricism, encouraging researchers to find facts that equate to 'truth' (Crotty, 1998; Grant & Giddings, 2002; Ritchie & Lewis, 2003). The key assumption is that truth is an independent part of the whole and that scientific research is objective and value-free (Henderson, 2011). However, there was a growing realisation that researchers cannot be completely objective and value free because they are impacted by the social, cultural and political contexts in which they exist (Grant & Giddings, 2002). Post-positivism emerged from

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these concerns (Grant & Giddings, 2002). Giddings and Grant (2006) argue that post-positivism maintains most of the philosophical assumptions of positivism. The key difference is that post-positivism acknowledges complexities and interactions, and recognises that reality is socially and culturally constructed (Henderson, 2011; Smythe & Giddings, 2007). Post-positivism allows the researcher a more encompassing way to examine real world problems (Henderson, 2011).

3.3 Research position and reflexivity

Epistemology is defined as the enquirer's relationship with the known, and what counts as knowledge (Crotty, 1998; Dew, 2007; Giddings & Grant, 2006; Grant & Giddings, 2002; Ritchie & Lewis, 2003). Epistemology impacts on the enquirer's choice of paradigm, or world view (Giddings & Grant, 2006). Because how one views the world, what one sees and what one looks for are interconnected and reciprocal in shaping each other, it is necessary to consider these philosophical underpinnings of any research (Dupuis, 1999; Henderson, 2011). Baumgartner and Hensley (2006) note that qualitative researchers should constantly reflect on their personal assumptions, biases and values and be aware of the influence of their personal biography.

This element of reflexivity needs to be acknowledged in the context of this research as the researcher's interest in this topic stems from his rural upbringing and regional success as a hockey player and athlete. The researcher is a senior lecturer of sport and recreation at a New Zealand tertiary institute. He has played hockey for many years, including representing his region at age group level. In addition, the researcher grew up on a large farm in a small rural New Zealand community. It is essential to acknowledge these elements, as a researcher will inevitably bring their own social position and theoretical lens to the research on which they embark (Terry, Hayfield, Clarke, & Braun, 2017).

3.4 Methodology: Qualitative Descriptive

The selection of methodology is contingent upon the purpose of the research (Crotty, 1998). It was felt that the research question could not be pursued in a positivist manner (Grant & Giddings, 2002; Ritchie & Lewis, 2003), because manipulated, controlled models of investigation fail to account for the complexities of human life (Davids et al., 2008). Therefore, in staying true to a post positivist paradigm and reflecting the researcher's epistemological approach to the study of knowledge, this study employed a qualitative descriptive methodology.

The qualitative approach has many strengths: data is based on the participants' categories of meaning; it provides understanding and description of people's personal experiences of phenomena; and data is collected in naturalistic settings (Johnson & Onwuegbuzie, 2004; Smith, 2010). More specifically, a qualitative descriptive approach is a methodology that aims to describe perceptions and experiences of the world (Neergaard, Olesen, Andersen, & Sondergaard, 2009; Sandelowski, 2000; Sandelowski, 2010). A qualitative descriptive approach differs from other forms of qualitative research because it provides straight description rather than theory development or interpreting the meaning of an experience (Neergaard et al., 2009; Sandelowski, 2000; Sandelowski, 2010). Although interpretation is not the aim of the research, it is important to acknowledge that it is impossible to avoid and the descriptions are influenced by the describer's perceptions and inclinations (Neergaard et al., 2009). Qualitative description demonstrates a commitment to studying something in its natural state (Sandelowski, 2000), drawing on naturalistic enquiry (Guba & Lincoln, 1982) with no pre-selection or manipulation of variables (Sandelowski, 2000). "Qualitative descriptive studies offer a comprehensive summary of an event in the everyday terms of those events" (Sandelowski, 2000, p. 336). Perception is shaped by human interpretations and these perceptions need to be as true and real as possible. In the context of this study, the subjects' perceptions of their experiences is essential to consider in describing their early sport and play experiences.

3.5 Methods

3.5.1 Participants

Participants in this study were eight current/former New Zealand elite hockey players who grew up in rural and regional areas. Participants were required to have: 1) Represented New Zealand in Hockey; and 2) Spent their sampling years (childhood; 6–12 years) (Côté et al., 2012) in a rural/regional area (defined as per Statistics New Zealand, 2017a).

Participant recruitment began with an initial consultation with Hockey New Zealand. From this consultation, Hockey New Zealand provided a list of 15 potential participants with an email contact for each. Potential participants were then contacted by the lead researcher via email inviting them to participate in the study. Included in this invitation was a participant information sheet (Appendix A) and a brief background about the researcher. Participants were also requested to provide a brief background about themselves, including where they spent their

'sampling years' (childhood; 6–12 years) and what schools they attended during this time. This specific request for background was due to the research's inclusion criteria of spending their 'sampling years' in a rural or regional community.

As participants responded to this invitation the inclusion criteria were applied. The study sought to cover a range of rural/regional locations, past and present players, and an equal gender split. However, participants were also selected based on availability and practicality of access for the interview sessions as face to face interviews were desired.

Sample size was an important consideration. This is difficult to determine, but the most important factor is that the sample represents the population (Baumgartner & Hensley, 2006). Terry et al. (2017) provide a broad indicative sample size for a master's thesis of 8-10 participants. As qualitative research is about generating 'rich' data, it could be argued that a larger sample group can actually be detrimental (Gratton & Jones, 2010).

Given the parameters of this piece of research (i.e. rural background, elite athletes, hockey players) a number of delimitations were employed. The main purpose of this research is to identify linkages between the rural upbringing of an athlete and their elite status, therefore athletes who did not come from rural backgrounds were excluded and only athletes who have represented New Zealand were considered. Also, because this research is focused on hockey players, athletes within other codes were not interviewed. Finally, only the athletes themselves were interviewed. As the main consumer of the experience at hand, they are placed best to share this experience.

3.5.2 Data Collection

This qualitative descriptive study utilised face to face semi-structured interviews with a conversational approach. Semi-structured interviews involve asking each participant the same general questions to guide the process, but the conversational approach allows some degree of spontaneous conversation and discussion to develop (Baumgartner & Hensley, 2006; Dearnley, 2005; Gratton & Jones, 2010; Mojtahed, Nunes, Martins, & Peng, 2014). There are a number of advantages of interviews: they allow participants to talk about their own experiences in their own words and to elaborate where necessary; they may reveal unexpected data; trust and rapport can be developed; and responses will have a context attached (Barriball & While, 1994; Gratton & Jones, 2010; Hand, 2003; Smith, 2010).

Interview questions were developed on the basis of previous research, including extensive reading of existing literature, in depth discussions with Hockey New Zealand and phone/video call conversations with key authors of previous New Zealand based athlete development research. Some interview questions were also adapted from similar research (e.g. Hodge et al., 2012). These questions were developed in groups under the three overarching areas of interest: 'early sport experiences', 'early play experiences' and 'the people around them'. Merriam and Tisdell (2016) state that interview questions need to be asked in a language familiar to the participants. To aid in clarity and consistency with terminology and interpretation, participants were also asked to define the terms 'sport' and 'play'. The interview guide of questions is included in Table 1 with subsequent potential probing questions included under each main question:

Table 1 *Semi-structured interview questions*

Definitions
1. What does the term 'Sport' mean to you?
2. What does the term 'Play' mean to you?
Early sport experiences
3. Describe your childhood sports experiences?

    a) *At what age did you first play sport?*

    b) *What sports were available to you growing up?*

    c) *Child led vs Adult Led?*

    d) *Supervised vs Unsupervised?*

    e) *Competitive vs Muck around/social?*

    f) *Structured vs Unstructured?*

        i. What are your organised/structured sport experiences? *(Timeline??)*

        ii. What sports did you play? Why?

        iii. Did you always play within your age grade?

        iv. Were you the oldest or youngest in the group?

        v. What level did you achieve?

            • *At what age did you represent your province/region?*

            • *At what age did you represent your country?*

        vi. What are your unstructured sports experiences? *(When and why did these happen, what kind of setting?)*

    g) *How did these sports contribute to your success as an athlete today?*

4. At what age did you specialise in your current sport? Why?

    a) *What was your perception of the pathway to elite status?*

    b) *Describe the athlete pathway for your current sport*

Early play experiences
5. Describe your childhood play experiences?
a) *Child led vs Adult led?*
b) *Structured vs Unstructured?*
c) *Supervised vs Unsupervised?*
d) *Indoors vs Outdoors?*
6. What did you do to "pass the time" growing up?
7. Describe how free you were to roam as a child
The people around them
8. Describe the environment *(physical and social)* you grew up in?
a) *Describe the importance of sport within your local community?*
b) *Communities support for sport (i.e. access to facilities, etc)?*
9. What role did the following people play in your development as an athlete?
a) *Parents?*
b) *Peers?*
i. *Did athletes' peer group stay in sport with them throughout the school years?*
c) *Siblings?*
d) *Coaches?*
e) *Teachers?*
i. *Describe the importance of sport at your schools?*
10. Passion for sport and where did it come from?
a) *Role models?*
b) *Main motivating factor for participating in sport?*
11. What are some of the challenges you have had to overcome to be the successful athlete that you are?
a) *What strengths (distinguishing factors) do you possess that have helped you achieve elite status?*

In an effort to fine tune the wording and scope of the interview guide (Table 1) as well as develop the skills of the researcher (Doody & Doody, 2015; Gratton & Jones, 2010), two pilot interviews were completed. The pilot interview participants were not affiliated with hockey; however they did play their respective sports to a national representative level and grew up in smaller communities. During these interviews, the researcher was video recorded to aid with critical self reflection and peer feedback from Master's supervisors. Participants provided feedback on the clear nature of the interview questions and their suitability for gathering the desired data. Review of the video recording provided insight into some useful body positioning during interviews. This feedback was noted and duly incorporated into the current study.

Two to three days prior to the interviews, a pre-read of questions (Appendix B) was shared with each participant. Given the need within this study for participants to share their childhood experiences, the intention behind this pre-read was to aid memory recall. In receiving a pre-read prior to being interviewed, participants were afforded more time to remember their experiences. This was reflected in the responses from participants, with one stating, *"so I had to ask mum about this, because I couldn't remember"* and another stating, *"I've had to phone a friend"*.

All interviews were carried out in the Faculty of Health and Environmental Sciences at the Auckland University of Technology (AUT) North campus. This provided a safe location for both participants and the researcher. Given that the majority of Black Sticks hockey players are based in Auckland, this also served as a convenient location for participants.

Prior to commencing each interview, the interview process was explained to each participant and a consent form (Appendix C) signed by them. After an element of rapport building, participants were questioned thematically as per the interview guide in Table 1. Due to the semi structured conversational interview approach employed (Baumgartner & Hensley, 2006; Dearnley, 2005; Gratton & Jones, 2010; Mojtahed et al., 2014), an element of flexibility was applied to the questioning. Although the questions were preformulated, a semi-structured interview approach allowed the researcher to digress from the interview guide as required by participant responses (Matthews & Kostelis, 2011). Interviews were audio recorded and later transcribed (Merriam & Tisdell, 2016).

Interviews ranged in length from one hour and two minutes through to one hour and thirty seven minutes. Table 2 below outlines the interview timeframes and subsequent transcript length.

Table 2 *Semi structured interview details*

Interview	Length	Transcript Length (pages)
1	1 hour 22 minutes	28
2	1 hour 37 minutes	35
3	1 hour 9 minutes	32
4	1 hour 9 minutes	30
5	1 hour 2 minutes	28

6	1 hour 11 minutes	25
7	1 hour 29 minutes	43
8	1 hour 34 minutes	35

3.5.3 Data Analysis

Thematic analysis is a recognisable and reputable method of qualitative analysis (Terry et al., 2017). Following guidelines by Braun and Clarke (2006) this process involves six major phases: 1) Familiarising yourself with your data; 2) Generating initial codes; 3) Searching for themes; 4) Reviewing themes; 5) Defining and naming themes; 6) Producing the report. The following sections will outline these phases in relation to the processes employed by the researcher.

3.5.3.1 Familiarising yourself with your data

Within this phase, interviews were audio recorded and then transcribed verbatim. Due to the time constraints of a Master's thesis and the nature and length of the semi structured interviews, the researcher transcribed one of the eight interviews himself with the other seven outsourced. By completing this process with the first interview, the researcher was able to immerse himself in the content and get a feel for the interviews and the type of responses gained (Merriam & Tisdell, 2016). As Braun and Clarke (2006) recommend, so as to ensure accuracy and confidence in the outsourced transcripts, the researcher listened to the audio recordings whilst proof reading the transcripts. This process allowed for the checking of content, but also gave context and feeling to the responses (Merriam & Tisdell, 2016). This proofing, reading and re-reading process allowed the researcher to familiarise himself with the data (Braun & Clarke, 2006).

Qualitative research generally includes simultaneous collection and analysis of data (Sandelowski, 2000). Therefore, to enhance the rigour of this research, throughout the interview and analysis process, the researcher recorded initial thoughts and ideas in the form of 'memoing' (Chiovitti & Piran, 2003; Cooney, 2011) and 'notes on transcripts'.

To enhance the truthfulness of this research, through a process of 'member checking' (Matthews & Kostelis, 2011), the researcher shared each completed transcript with the

respective participant to check for accuracy and clarity in the responses. Each participant provided consent that they were happy with the transcript before analysis proceeded.

3.5.3.2 Generating initial codes

NVivo 11 computer software was utilised to analyse the data set. When interesting data was identified within the transcripts it was given an initial code. Terry et al. (2017) note that thematic data analysis can be approached primarily in two ways: deductively or 'top down', where analysis is driven by existing theory, or inductively, 'bottom up', where analysis is ultimately driven by the data. In the case of this research, data was analysed both deductively and inductively to form what has been termed a more 'inductive' approach (Timmermans & Tavory, 2012). In designing this research, there were three overarching areas of interest, which formed deductive themes. During the initial coding phase, these deductive themes served to guide the search for data of interest. However, as the researcher systematically worked through the data set, inductive codes also presented themselves. Once all data was coded a long list of codes was produced.

3.5.3.3 Searching for themes

In this phase, coded data was sorted into dominant themes and relevant data extracts were collated under each of these themes (Braun & Clarke, 2006). As themes were identified, they were then named. At this stage, some codes formed dominant themes, whereas others became a range of sub themes within these dominant themes. At the end of this phase a range of themes and sub themes were identified and all associated data sets were collated within them (Braun & Clarke, 2006).

3.5.3.4 Reviewing themes

Braun and Clarke (2006) state that the data within themes should be cohesive and meaningful, while at the same time there should be clear differences between themes. The purpose of this phase is to check and refine themes to ensure that this is the case. It was identified during this phase that some themes were strong, while others were collapsed into sub themes.

During this phase, a selection of transcripts were shared with the researcher's supervisors. This was followed by a discussion to ensure consistency in the themes gained from participant

responses. This is a process known as 'peer debriefing' (Matthews & Kostelis, 2011) and is often used to ensure trustworthiness within the data analysis process.

The end of this phase saw thematic concept maps produced which outlined the dominant themes and illustrated how they linked together.

3.5.3.5 Defining and naming themes

Once these concept maps were developed, the reviewing process continued to refine and name the themes (Terry et al., 2017). The purpose of this phase was to 'define' and 'refine' the 'essence' of each theme (Braun & Clarke, 2006). Themes were considered in relation to other themes, as well as individually. As stated by Terry et al. (2017), thematic analysis is a non linear process. This was reflected in this phase, as the researcher found himself revisiting data extracts and continuing to re-group and re-name themes. However, the end of this phase saw names and definitions of themes clarified.

3.5.3.6 Producing the report

Producing the report provides the final opportunity for analysis (Braun & Clarke, 2006). As the researcher began to draft the report, what became clear was the need for further refinement as to what themes mattered and how they fit together. The purpose of this phase is to tell the story of the data in an interesting yet concise, coherent, logical and non-repetitive way (Braun & Clarke, 2006). Therefore, the write up proved to be a valuable step in the process to finalise and refine the dominant themes and subsequent sub-themes, providing a descriptive summary that best fit the data (Sandelowski, 2000).

3.6 Ethical considerations

As with any research, there are a number of cultural and ethical considerations required for this research. The Auckland University of Technology Ethics Committee (AUTEC) granted ethical permission for this study on 18th November 2016 (Appendix D) with an amendment approved on 27th March 2017 (Appendix E). The following section outlines the ethical considerations relevant to this research and is guided by the three key ethical principles of participation, protection and partnership (Hudson & Russell, 2009).

3.6.1 Participation

Voluntary participation, involuntary participation and informed consent

It is widely acknowledged that informed consent is a basic requirement for research involving human subjects (Baumgartner & Hensley, 2006; Connelly, 2014; Fehring, 2002; Gratton & Jones, 2010; Munhall, 1988; Rogers, 1987). However, it is important to acknowledge that it is not simply a tick box exercise; participants need to be fully informed of what they are involved in (Baumgartner & Hensley, 2006; Connelly, 2014; Gratton & Jones, 2010; Rogers, 1987). With this in mind, participation in this research was completely voluntary, free from coercion, imbalance of power or incentives of any kind. Participants were fully informed about the research including its purpose, inclusion criteria, processes, steps taken to safeguard their privacy and confidentiality, potential risks or discomfort, benefits, costs, and what will be done with the results.

Through its descriptive nature this research was unobtrusive in design, in that it had minimal effect on its participants (Gratton & Jones, 2010). Regardless, participants could withdraw at any stage (Connelly, 2014; Gratton & Jones, 2010), and all answers from participants were at their own volition. Participants were also given the opportunity to review interview transcripts before analysis (Matthews & Kostelis, 2011).

3.6.2 Protection

Privacy and confidentiality

Prior to the collection of data, participants were informed of what their information and the research findings will be used for and who will have access to it. This was explicitly stated in the 'Participant Information Sheet' (Appendix A), but it was also verbally communicated to each participant. Furthermore, it is important to ensure that participants cannot be identified and linked to the data collected. To ensure this was achieved, codes were used in the place of names when storing data (Gratton & Jones, 2010; Rogers, 1987). A coded prefix was subsequently used in the place of names in any reporting of the results. This also included the removal of any other identifying features such as names of people or geographical locations.

Where transcription services were outsourced, a 'confidentiality agreement' (Appendix F) was completed by the transcribing party.

Disclosure of research findings

Not only do participants need to be informed of what the research will be used for, the researcher is also obliged to disclose accurate and true findings from their research (Baumgartner & Hensley, 2006). Notions of credibility, trustworthiness and honesty are riddled throughout the research ethics literature (Baumgartner & Hensley, 2006; Connelly, 2014; Fehring, 2002). It was essential that upon completion of this research, findings were disclosed in the most honest and accurate manner without omission (Baumgartner & Hensley, 2006; Connelly, 2014).

3.6.3 Partnership

Cultural considerations

"What people believe in, what is important to them, and what they value differ among the many diverse cultures of the world" (Anonymous, 2004, p. 8S). New Zealand is no exception; as a multi-cultural nation, it needs to acknowledge the differences that exist between cultures.

Given that this research was focused on rural New Zealand, it was crucial that the principles of the Treaty of Waitangi were acknowledged in the research design. Although the research was not focused solely on Māori , it will no doubt be of relevance to Māori . "All research in New Zealand is of interest to Māori, and research which includes Māori is of paramount importance to Māori" (Hudson, Milne, Reynolds, Russell, & Smith, n.d., p. 1). The Health Research Council of New Zealand (2008) note that as the Treaty of Waitangi is the founding document of New Zealand, its principles should be respected by all researchers. Framed by the Treaty of Waitangi, Hudson (as cited in Hudson & Russell, 2009) outlines three broad themes that inform ethical relationships with indigenous communities. These are respect, meaning recognition of indigenous groups as sovereign entities, and respect for their cultural knowledge and traditions; control, meaning indigenous control of involvement in research processes and to what extent; and reciprocity, in ensuring there are mutual benefits and they are realised in an equitible manner. In addition research needs to implement the Treaty principles of partnership, participation and protection and to ensure that tikanga (protocols and practices) and cultural concepts are acknowledged (Hudson & Russell, 2009). Hudson et al. (n.d.) provide a useful framework for incorporating these principles in 'Te Ara Tika Guidelines for Māori research ethics: A framework for researchers and ethics committee members', where

they outline minimum standards, good practice and best practice methods with regard to Whakapapa (relationships), Tika (research design), Manaakitanga (cultural and social responsibility) and Mana (justice and equity). However, it is important to remember that, "the principles of the Treaty of Waitangi should be interpreted in a manner that acknowledges and affirms the ethical understandings of both Māori and Pākehā New Zealanders" (Hudson & Russell, 2009, p. 65). Throughout this study, the values, beliefs and understandings of all participants involved were respected at all times. This respect was embraced through the afromentioned practices utilised with regard to participation, protection and partnership.

3.7 Rigour and Trustworthiness

In addition to the use of audio and video recording devices as well as NVivo 11 computer software to analyse the data, a range of approaches were used throughout the research to ensure rigour and trustworthiness and are now discussed in order of application. The first, and one of the most important, approaches involved the researcher's 'discloser of orientation' (Stiles, 1993). This included the researcher disclosing his background and reasons behind the research project. As Koch and Harrington (1998) state, interpretation is at the heart of all research and, therefore, reflexivity from the researcher is essential (Baumgartner & Hensley, 2006). The disclosure of the researcher's background and motivations provides transparency and context to the research. The process of 'memoing' (Chiovitti & Piran, 2003; Cooney, 2011) also served to aid the researcher's reflexivity. These thoughts and ideas then became a key component of the analysis process.

The selection criteria of participants is another important issue to consider. As a degree of purposive sampling was required, it was essential to outline why participants were selected (Chiovitti & Piran, 2003). In embarking on interviews as the main method of data collection, the next important consideration is ensuring consistency in the meaning of the words and language used (Stiles, 1993). In this study, an attempt was made to achieve consistency with terminology through the use of definitions at the beginning of each interview. Participants were asked what the two terms, 'sport' and 'play', meant to them; this was an important step, as a distinction between these terms was pertinent to the research at hand.

Throughout the data collection and analysis stages, a range of further steps were employed to enhance rigour and trustworthiness. As outlined previously in the analysis section

this involved member checking, peer debriefing and sharing of transcripts with supervisors (Matthews & Kostelis, 2011).

The final approach used in this research is described by Hussein, Jakubec and Osuji (2015) as 'fittingness' or 'transferability'. This refers to the ability of the researcher to demonstrate that the findings of the current research have meaning in other similar situations (Beck, 1993; Hussein et al., 2015). It is important to note that, although this research will provide a rich source of information in the field of athlete development and particularly hockey, the intention of this research was not to predict or generalise, but rather to explore and enhance the athlete development experience (Lamont, Hing, & Vitartas, 2016).

3.8 Summary

In summary, this research employed a qualitative descriptive methodology to describe the early sport and play experiences of elite New Zealand hockey players from rural and regional communities. This section has presented an overview of this qualitative descriptive methodology along with its philosophical underpinnings and the paradigm within which it sits. Participants were recruited through consultation with Hockey New Zealand and an invitation to be involved in the study. Participants were involved in face to face semi-structured interviews with a conversational approach, guided by the same general questions, but which allowed for conversation and discussion to develop. Interviews were audio recorded and transcribed verbatim. Data was analysed both deductively and inductively through thematic analysis. Ethical considerations, as well as steps taken to enhance rigour and trustworthiness, have also been discussed. Overall, this study aimed to stay true to Sandelowski's (2000) notion of a qualitative descriptive study to produce rich and valuable data.

Chapter 4: Findings

Qualitative descriptive research aims to describe perceptions and experiences of the world (Baumgartner & Hensley, 2006; Gratton & Jones, 2010; Neergaard et al., 2009; Sandelowski, 2000; Sandelowski, 2010; Smith, 2010). With this in mind, the following section will attempt to stay true to the tenets of qualitative descriptive methodology, and describe the experiences of the participants.

4.1 Participant Demographics

One of the initial objectives of this study was to focus on athletes who come from a more 'rural upbringing'. However, it was quickly discovered that 'rural' is increasingly difficult to define, especially by international standards. Statistics New Zealand (2017a) acknowledges the absence of an internationally recognised definition of rural and currently categorises urban and rural New Zealand into a number of sub-categories, with each sub-category intimately linked to the next. Participants in this study range in 'rural' status, and Table 3 below outlines the basic characteristics of each participant to identify their background and give context to their responses.

Table 3 *Participant characteristics*

Participant	Gender	Black Sticks Player Status	'Rural' Status (Statistics New Zealand, 2017a)
1	Female	Current	Rural (small farming community)
2	Female	Current	Rural (small farming community)
3	Female	Current	Urban (smaller community outside of town, but still in urban catchment)
4	Female	Retired	Urban (smaller community outside of town, but still in urban catchment)
5	Male	Current	Secondary urban (small regional township)
6	Male	Current	Minor urban (small regional township)
7	Male	Current	Rural (small farming community)
8	Male	Retired	Minor urban (small regional township)

4.2 Themes

Throughout the development and implementation of this study, there were three overarching areas of interest. These were early sport experiences; early play experiences; and the people around the athletes. These overarching areas formed deductive groupings that guided questioning during the interview process. Inevitably, these three areas of interest overlap, forming a more 'holistic' view of each participant's experience. Figure 2 below offers a pictorial illustration of these interactions.
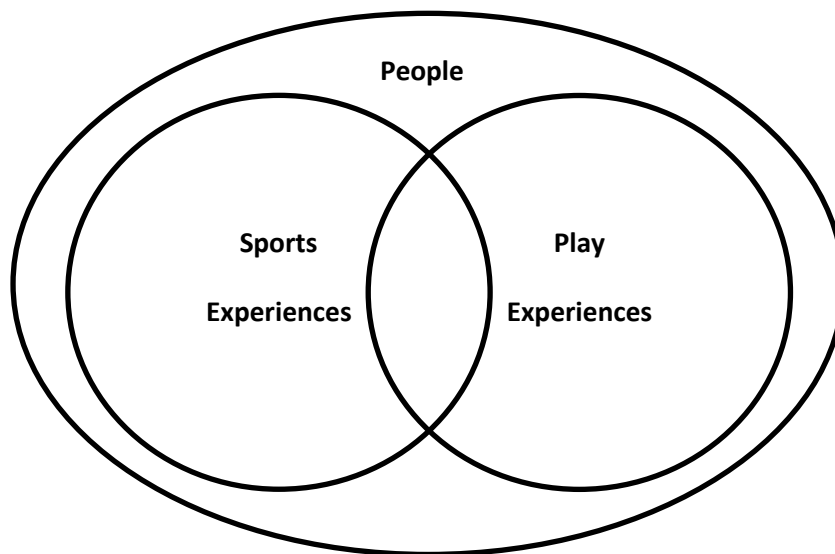
Figure 2 Illustration of the interaction between the three overarching areas of this research.

Across these three overarching areas, a number of inductive themes were identified: 1) Diverse range of sports played; 2) Young for the team; 3) Types of play; 4) Roaming and responsibility; 5) Overcoming challenges; 6) Support. This section will present these themes respectively.

To maintain participant anonymity, all names and initials have been removed as well as reference to particular geographical locations. Instead, participants have been allocated a number from 1 through to 8.

4.2.1 Diverse range of sports played

An initial area of interest in this study was the 'early' sport experiences of participants. However, in the course of the interview process, what quickly became clear was the close relationship between participants' 'early' sport experiences and their entire pathway to elite status. In outlining their early sport experiences, athletes spoke of their sports experiences throughout their careers. Therefore, the participants' entire sporting pathways have been

embraced in the findings. All but one of the eight participants included in this study demonstrated engagement in a diverse range of sports throughout their sporting pathways. The range of sports played was extensive including athletics, basketball, cricket, golf, gymnastics, horse riding, mountain biking, rugby, shooting, soccer, swimming, tennis, touch rugby and volleyball. However, some sports were more popular than others. Rugby was played by seven out of the eight participants, athletics by five, and cricket and soccer by four out of the eight. Furthermore, almost all participants played individual sport as well as team sport with athletics being the most common.

> **Participant 8:** *I started doing tennis then I started doing things like basketball, and I pretty much tried most sports. So I think […] between 5 and 8, it definitely was rugby, tennis, cricket, soccer, hockey, athletics, mountain biking, swimming and basketball.*

It was evident that participants engaged with sport at a very young age, and this diverse range of sports played by the participants extended into their high school years, where they continued to 'dabble' in a range of sports.

> **Participant 2:** *At high school I tried soccer for a year, did some volleyball. Obviously athletics, rugby, hockey and did table tennis. They tried to get me into touch, but I wasn't really keen on that. I did a cricket tournament once and then quite liked badminton too, so just dabbled around [laughter].*

Sports timelines were also captured as a component of the analysis process. In describing their 'early' sport experiences, participants outlined their entire sporting pathway encompassing their first sport experience through to their selection into the Black Sticks. These sport experiences are unique to each participant and illustrate the strong relationship between experiences at a young age and those later in life. Understanding the participant's entire pathway gives greater understanding of the relationship between the early years and their elite status. A sample of these sports timelines (*Figure 3*) is included below to illustrate this unique relationship and to highlight the diverse range of experiences had by each participant.
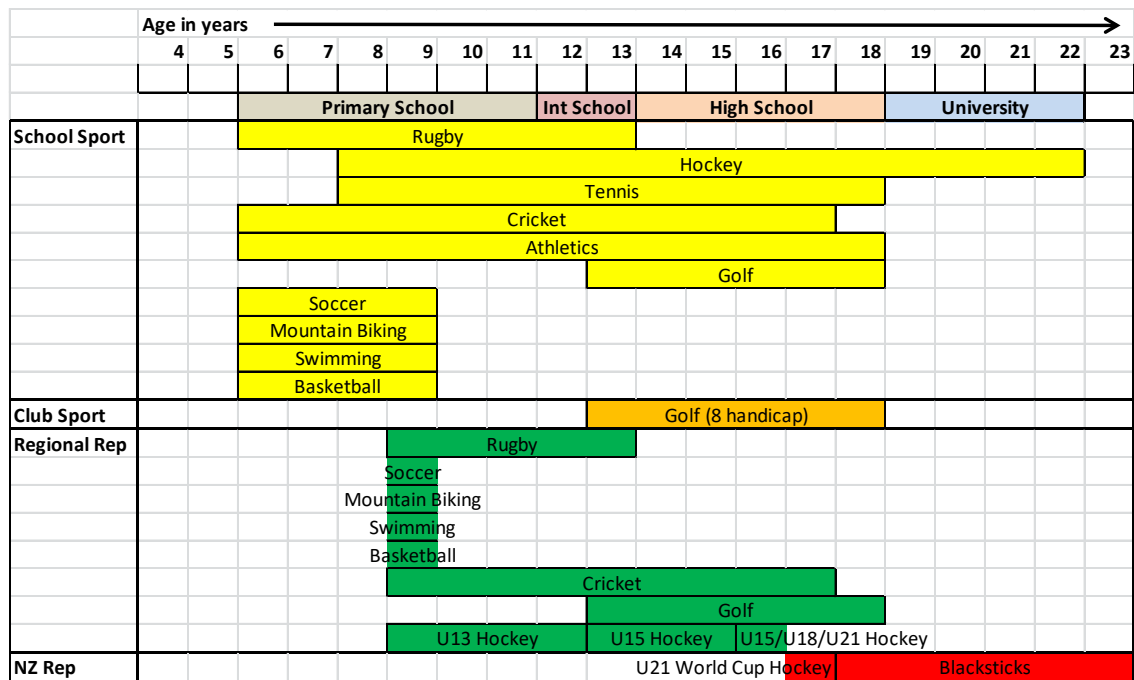
Figure 3 Participant Sporting Timeline. Timeline template adapted from Hodge et al. (2012).

The majority of participants attended relatively small schools; this was often credited for their involvement in a diverse range of sports, as **Participant 8** states, "*I was never really good at soccer, but I was in a small school, so it was just more making up numbers*". Clearly in a smaller school, the formation of a team relies on student participation. At times this need for players also resulted in a mix of genders playing together. This was coupled with a supportive environment where participants were able to be self-determining and to make their own choices at an early age. This freedom of choice is highlighted in **Participant 8**'s response: *"So I've got freedom down here. So I think having the freedom to play whatever I wanted to play, and try what I wanted to try".*

Some participants made light of the commitments of playing a diverse range of sports, such as running between trainings. However, it was clear that they perceived a range of benefits from this experience. These benefits included the ability to figure out what they were good at; playing for enjoyment rather than pursuing the elite pathway; gaining transferable skills such as vision, hand-eye coordination, movement and footwork; the ability to see the bigger picture and to understand the game better; good 'grounding' in a range of skills; and finally, development of skills that fed into them being a better hockey player. An additional benefit was coming late to the representative space and still succeeding. **Participant 1** highlights how this late arrival produced subsequent benefits:

Participant 1: *I think it was soooo good that I was able to play so many different sports, […] I came in fresh, loving it and I wasn't just drilled, […] I just got to play lots of different sports, have fun, obviously I was competitive, but I got to find out what my favourite sport was by default, like by experimenting other sports, I didn't just get chucked into one and get told to train every day for that one sport. […] you do see a lot of kids blow out because they just go into it too young and don't have anything else, that's all they have.*

Notably, within their wide ranging sports experience, hockey was often not the centre of focus for these athletes, despite hockey ultimately becoming their final elite sport. Often, the athletes had a different sporting focus (e.g. athletics, touch rugby, tennis), but played hockey at the same time. However, all participants did play hockey from a relatively young age.

For one participant, her sports participation was a more specialised experience. However, she felt that this was largely driven by the surrounding environment. The school and prominent members of the community were hockey-centred and therefore so was she.

Participant 4: *I went to* [name of local primary school] *[…] there were no other sports we could play, so hockey was the only option […] So, it was a real hockey community, so we all would kick around on the courts with our hockey sticks and hockey balls.*

This participant also acknowledged the significance of key adults who helped shape that environment:

Participant 4: *I think the reason behind our team was* [name of community member] *[…] he was our coach on the Saturday mornings, he ran all of us, he even came to school, and he would help us with our skills; yeah he just gave us little pointers. I always remember him saying if you can trap and pass you're always going to be able to play hockey well.*

These comments illustrate the influence that the community and people in the community had on the developmental experience of the participants in this study. Sport was important to most communities and was often coupled with an implicit, or in some cases explicit, expectation to be involved in the sport for which the area was renowned, as **Participant 2** states, *"I suppose I played hockey because* [hockey] *was a big sport in* [name of region]*"*.

Although the participants in this study enjoyed a wide array of sports experiences, they eventually had to focus their attention to one or two sports. There were a range of reasons for specialising, including clashes of timetables between sports codes, the influence of coaches, the impact of injuries, and ultimately, sporting success.

4.2.2 Young for the team

One of the most dominant themes within the sport experiences of these participants was that of being young for the team. Participants commented on their relative age in a range of ways. Often, due to the smaller communities in which they were raised and the lack of availability of sports teams, participants played sport in teams with a range of ages. Typical of participant responses, **Participant 1** states, *"I played hockey when I was 7, […] but I was playing with people up to* [the age of] *12"*.

Participants also commented on playing in grades above what would be considered their appropriate age grade; this is referred to as 'playing up grades'. Sometimes 'playing up grades' was necessary as a result of the limited availability of teams; other times it was through choice. While challenging at times, 'playing up grades' was generally spoken about as having a positive effect on their development as an athlete. Participants commented on a vast range of skills they developed by 'playing up grades', as captured in the response below:

> **Participant 5:** *You can learn so much more off those older people who have been there and experienced those different things and knew those different skills. So it would be quite good being able to play with the* [name of region] *men at whatever age I did, they'd just help me out and they'd teach me different things.*

Despite the perceived development of skills, 'playing up grades' also had its challenges, particularly when it came to socialising, as **Participant 5** also highlights: *"probably the maturity. That's probably a bigger sort of one. So being 14 with guys who are in their mid-twenties sort of thing. Bit hard too socially I'd say"*.

Even when playing within the appropriate age grades, participants were often the youngest in their team. This continued into the representative space, where participants often spoke of being selected into representative sides at a relatively early age due to their talent. The below comment is typical of responses from participants:

> **Participant 6:** *I was 9 in the Under 13 team, but I guess I always kind of have been* [the youngest in the team]*. I have been for, yeah that team, probably* [name of region] *under 18s, or New Zealand. Probably in every New Zealand team I've been the youngest if not second youngest.*

Being one of the youngest when selected into a team often meant that participants were able to spend more time in that team. As **Participant 8** states, *"I started as the youngest and*

then obviously ended up being the oldest". This allowed players to develop confidence within that environment and to eventually become one of the senior players.

4.2.3 Types of play

Play has many forms, but for the purpose of this research 'play' is defined as unstructured and the child's own activity. Play experiences tend to be earlier in life and therefore the focus timeframe for this theme is pre-school and school age experiences.

The majority of participants reflected on a childhood of play that was unstructured with inherent risk. As **Participant 4** states, *"we would be climbing the rocks, finding fresh water crayfish, catching the bugs, making huts outside, taking the fern fronds off and making little hideouts"*. Every participant commented on their memories of unstructured ("muck around") sport as they grew up. The participants felt that these less structured experiences helped in their development as elite athletes, demonstrating a passion for sport that has filtered into their engagement with the elite scene. Unstructured sports came in a range of forms including versions of structured sports or even made up games, of which a few examples are included below:

> **Participant 2:** *Sometimes when it freezes enough at home you get the real ice on the dam […] we must have done that a lot because all my family members just have the big box of old fashioned skates. So we'd all get our skates on and play ice hockey, we all had old wooden sticks we bought a puck and have goals and then tractor lights were on, you have your big bonfire going.*

> **Participant 8:** *So a lot of what we did growing up, especially between 5 and 12, we played what I would call a structured game, and it could be any one of those particular sports, but a definitely modified version of it. A bit more free […], rules didn't really matter too much. But the result did matter.*

What was shared by all participants was that their play was ultimately driven by them. Whether they were climbing trees, riding bikes, playing a modified game of rugby, or playing 'go home, stay home' (a New Zealand version of hide and seek, generally played in the dark) in the local forest, the play was child-driven and their own activity.

A clear pattern that emerged from the participant responses was that the majority of play experiences embraced the outdoor environment. Other more creative forms of play were also popular, with role play being a common activity. These more outdoor, creative forms of play meant that by default participants also spent very little time in front of screens watching

television or playing video games. The participants of this study were physically active throughout their youth and remain physically active today.

4.2.4 Roaming and responsibility

All participants were given a large amount of responsibility at a relatively young age, particularly around their farming or lifestyle block (a New Zealand term for houses built on approximately ten acre blocks of land common in largely rural areas) upbringing. Participants were often tasked with important jobs around the home or farm and were given responsibility to care for and utilise animals. **Participant 7** states, *"I got my first dog when I was six, had my first horse at that age as well. I've got seven dogs now and two horses"*. This statement illustrates the relative young age at which participants were given high levels of responsibility.

Although parents had a presence, participants were generally allowed to roam freely and were often trusted to venture near dangerous elements such as waterways. The below response typifies the experiences of participants:

> **Participant 2:** *We were allowed to go down to the river and play […], we'd just take things through the hole in the fence and go down and dig around and muck around [New Zealand slang for passing the time] for hours.*

In many instances participants were left to play by themselves while their parents worked on the property, and the oldest sibling often fulfilled the supervisory role. In some cases, the participants themselves were the older sibling and therefore, they had to supervise their younger siblings. Although participants enjoyed the freedom to roam, roaming tended to be more acceptable when participants were in larger groups. For instance, **Participant 8** recalls, *"so if I said, 'Oh, me and my brother are going to go down* [to the forest to play]*' generally the answer would be, 'No, unless there's a whole bunch of you going down'"*.

Community support for 'roaming and responsibility' was also strongly apparent in the accounts of participants, who felt safe to roam within the community since the adults within the community would look out for them. According to **Participant 4:** *"Within a distance of 20k, 10k each way, we knew everybody, and everybody knew us. So everyone was always obviously looking out for people. […] it was such a safe community and obviously a really supportive community"*.

However, participants also noted that this has changed and communities are now quite different to what they were five to ten years ago. Despite enjoying a safe and supportive community in their youth, the majority of participants perceived a shift that has occurred in recent years, as exemplified by **Participant 1:** *"We used to go round to have barbeques and all that kind of stuff and it just kind of died out. I don't think* [name of community] *is quite the same anymore".*

4.2.5 Overcoming Challenges

As the participants outlined their sporting pathways, it was clear that they all shared some common challenges during the course of becoming elite. The challenges shared by the participants tended to arise chronologically as they progressed through their sporting careers. Initially, factors such as limited facilities and travel were major challenges, but as athletes progressed, factors such as cost, injuries, and relocation became apparent.

Although the quality and availability of sports facilities ranged, participants shared commonalities in the lack of facilities available in their respective communities. However, they tended to have good access to the facilities that were available, including in their own time. With regard to hockey facilities, participants often commented on the range of playing surfaces they had to contend with in their youth, including grass fields, sand turfs and water turfs, all of which ranged in quality. In recent years, however, the quality and availability of hockey facilities have improved.

The requirement to travel, for either representative teams or access to facilities, was identified by participants as a major challenge. As participants progressed along the chronological pathway of development, the challenge of travel became more about meeting the requirements of elite sport. A response typical of participants is presented below:

Participant 3: *I played for* [name of local city] *under 18s and then I went to* [name of region] *under 21s, so that meant that I had to go to* [name of larger city] *for training, maybe three or four times* [a week] *when I was in the year 13 [final year of High School in New Zealand].*

Finally, participants outlined the high costs associated with sports participation. Initially due to fees and travel, costs increased exponentially as participants progressed along their sporting pathways and ultimately had to relocate for their chosen sport. Participants spoke of the expensive nature of hockey, particularly at the elite level.

Participant 2: *Hockey I think is bad in some ways because you have got to be able to afford to do it. It is a very expensive sport, […] last year with Junior World Cup I think my costs would have been $15-$20,000 for the year.*

Costs are not always financial and participants also spoke of costs related to educational decisions that were dictated by their sporting choices as well as the social cost that often came with their sporting commitments. Despite these challenges, the participants in this study were ultimately successful in becoming elite athletes and in representing New Zealand as a Black Stick. The characteristics and motives that enabled these participants to overcome their various challenges is another important component of the theme of overcoming challenges.

The participants of this study were motivated by a range of factors but the three motivators that were mentioned by all participants were a passion for competition, the fun that they had in playing their sport, and experiencing success in their sporting pursuits. Given the competitive nature of the participants, it is not surprising that competition was a key motivator. Fun, on the other hand, can mean different things to different people, but for these participants, they referred to the sheer enjoyment and excitement they experienced when playing the game. Regardless of the level in which they were competing, participants remarked on the importance of having fun. A typical response is captured below:

Participant 5: *I always have fun too, because a lot of people stop sports because they don't enjoy them. And I guess even now, playing for the Black Sticks, I still have fun even though it's competitive. I still have a smile on my face.*

The motivation of success became more apparent as participants' careers progressed. Success was defined by participants as becoming an elite athlete and selection into representative teams. Successive experiences of success had a 'snowball' effect for participants. However, it is important to note that early in their careers, participants were not actively striving toward achieving elite sporting status. Rather, becoming elite athletes was a by-product of participating in a sport they enjoyed.

The participants of this study also perceived themselves to have a number of strengths. Many of the participants commented on their ability to put in hard work when it was required. This 'work ethic' was often attributed to their responsibilities and commitments growing up, such as working on the farm or being a contributing member of their family. This was also linked closely to notions of gratitude, respect, and not taking things for granted. Enjoyment and fun were closely linked for these participants. Fun related to their enjoyment of, and excitement

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in, playing the game, whereas their enjoyment was referred to as having fun. The athletes highlighted their ability to enjoy what they were doing as one of their strengths. It was clear throughout the interviews that all participants shared an enjoyment and passion for their chosen sport. As **Participant 8** remarks, *"I think a strength is probably, I don't know what you call it, just enjoyment. It didn't matter what we were doing, if we were training, playing hockey. I actually really enjoy it"*.

Participants suggested that another important factor was their ability to be self-determining and to make their own choices at an early age. This autonomy was largely supported by the socio-emotional environments in which they were brought up. Finally, participants identified resilience and determination as other strengths that played key roles in their sporting success. A rural upbringing was conducive to the building of resilience, as exemplified in the below quote:

> **Participant 7:** *Probably the only injury I remember. I was eight maybe nine, […] definitely before boarding school. I was killing my own dog tuckers* [New Zealand slang for dog food]*[…]*
>
> **Interviewer:** *What happened? [laughter]*
>
> **Participant 7:** *I cut my finger*
>
> **Interviewer:** *Oh no.*

Some of the expectations that were placed on participants in their youth also promoted their resilience, as illustrated in the subsequent exchange between the participant and the researcher.

> **Participant 7:** *I've still got the scar. I remember Dad just getting ripped into by the nurse, saying 'he's too young for this and that'. I was sitting right there thinking, 'I've been doing this for a couple of years now' [laughter]*
>
> **Interviewer:** *And that was the first time something's happened?*
>
> **Participant 7:** *Dad said, 'he's been doing this for a while now', and she says, 'where were you in the situation?' So Dad says, 'in the shearing shed, shearing another one for him to kill' [laughter].*

This example highlights the resilience that is expected in a more rural upbringing.

4.2.6 Support

The final inductive theme identified in this study relates to the support received from the people around the participants as they grew and developed. The impact of these important people is evident in the recounted experiences of the participants. Although these people's

roles might shift from one setting to the next, they were a constant source of support throughout the development of each athlete. Prominent members of the participants' support networks could be divided into four main groups: a) Parents; b) Siblings; c) Coaches; d) Peers.

4.2.6.1 Parents

Family had a major impact on the developmental pathways of the participants. Although referred to specifically in this section, family played a key role in all areas of this study. Families did a lot together, working together to complete jobs around the property and taking regular family holidays. Parents, in particular, had a central role throughout the development of all participants and their unrelenting support was credited as a significant factor in the success of participants. By all accounts, without their parents' support, the participants' experiences would have been different -- in some cases they may not have succeeded in the elite space. Even as elite athletes, participants comment on the support they still receive from their parents.

> **Participant 2:** *You've got to have supportive parents because […] they name teams quite late. It's not like you have a lot of preparation, so you need to be able to afford to go. My parents have always been there to help.*

Parents played a key role in helping participants to overcome major challenges. Financial costs posed a particular challenge, especially when playing on the global stage and having to travel abroad. Participants spoke of the thousands of dollars that were required to attend sports tournaments, and highlighted how parents had assisted with these costs.

> **Participant 7:** *Hands down the biggest reason I've gone as far with hockey is financial support from my parents. If it wasn't for them and the amount of money* [they have spent]. *I think they worked out that they spent 15 grand on it last year.*

Travel was another key challenge that was overcome with parental assistance as they often transported the child from one sporting fixture to another. **Participant 3** captures this experience well, stating, *"My mum and dad would spend a lot of their time driving me from different sports to training and then a different training"*.

The ability of parents to assist with overcoming these challenges was largely due to their availability. Participants in this study frequently highlighted how their parents were able to give large amounts of time to support their child's sport.

> **Participant 1:** *I was probably lucky in a sense that my mum only worked half a day, twice a week, so she was available and then dad obviously, you don't have set hours*

as a farmer. It's probably lucky that my parents were there if I needed, they weren't full time working or you know office job or something where you can't get time off.

This quote highlights the unique nature of the largely rural settings where these participants grew up. A large proportion of participants either had farming parents with flexible hours or came from a household where one parent did not work. This allowed for parents to be available to support their child's sporting pursuits.

However, this unrelenting support is not where the parental influence ends. Often because parents also played or used to play a particular sport, they were credited as the reason participants chose to play a sport. For example **Participant 7** states, *"my dad played rugby […]. He played rugby quite a bit. And Mum was a hockey player"*. **Participant 7** indicated that he chose to play rugby and hockey because of his parents' involvement in these sports.

Parents also fulfilled volunteer positions within the sporting community. This is often due to parents supporting the sports that their children choose to play. However, in the case of some participants, their parent being a coach of the team was the reason they chose to play the sport.

4.2.6.2 Siblings

As an essential element of the family unit, siblings also had a considerable impact on the participants of this study. Highlighted in the 'roaming and responsibility' theme, siblings often played a significant role in participants' play experiences -- either in a supervisory role or as key playmates. More specifically to sport, siblings aided in the development of participants by becoming key practice buddies, as the following example shows:

> **Participant 8:** *My younger brother, he's only 18 months younger and we were quite competitive. […] we would go and train on a cricket Astro pitch, which is kind of less than a couple of hockey sticks width. We would do that all day and all night, as much as we possibly could. So our tight skills and stuff kind of got created from there quite quickly.*

The above quote also alludes to the innate competition present between siblings. Whether it was due to the result of this competition or not, siblings were also credited as another reason participants started to play a sport. In some instances, siblings were spoken of as role models. In other instances, participants were dragged along to their siblings' sporting fixtures, which then led to participants becoming involved. For example, **Participant 7** recalls, *"The only*

reason I was playing hockey was sort of filling in because my Mum was coaching a team and my sister was playing in a team older, and I was there".

On the flip side, siblings could also have negative effects on the participants' sporting pursuits. In some cases, participants were unable to play a sport, as the family's resources were overstretched. Nevertheless, the analysis clearly indicates the significant role played by siblings, regardless of whether they exerted positive or negative influences.

4.2.6.3 Coaches

Coaches played a signifcant role in creating and influencing the sports climate of the participants. They often assisted and supported participants in their attainment of elite status. All participants generally reflected positive experiences with coaches, highlighting their enjoyment for their sport as a possible by-product of positive coaching. The support from coaches came in many forms. At times it was gentle support, such as building the confidence in participants that they could succeed. **Participant 4** spoke of a time when her high school coach said to her, *"I bet you're going to be a Black Stick one day"*. This comment from the coach planted a seed in the participant's mind that she could be successful as a hockey player. Support from coaches could also be more direct and persuasive, as the following example illustrates:

> **Participant 8:** *He coached me at the first academy, and throughout my career, […] I think it was after I got picked in the under 21 World Cup. He called me up and goes I've got you a scholarship for university. I want you to come up to Auckland. I want you to play on their club hockey team. And you're going to live with these other New Zealand players and stuff, all sorted. I was just like yeah sweet, of course, I'm there.*

4.2.6.4 Peers

The majority of participants discussed the friends with whom they grew up. Often, these friends were also their sporting peers. Participants often interacted with the same peers throughout their sporting careers. Playing in the same team with the same people through the grades was a common occurrence. This is highlighted by **Participant 3**'s school basketball team experience, where she played in the same team with the same peers for four years, *"I guess we had this one basketball team, it pretty much stayed the same from year seven [approx. age 11] to year ten [approx. age 14], so we would always be hanging out the whole way through"*. Likewise, competing with or against the same people at different tournaments

and events was also a common experience for the participants of this study. The response below is representative of the experiences of the participant group:

Participant 6: *You always see them* [other players] *at every tournament, because there are so many tournaments now. So you always see them there. We know who's good, and you've always got a game plan, and you always know who to go away from. And so it's usually those ones [laughter].*

In most cases, participants made lifelong friends through their sport, which provided another source of support.

4.3 Conclusion

This study focused on the early sport and play experiences of elite New Zealand hockey players from rural and regional communities. Through questioning participants around their 'early sport experiences'; 'early play experiences'; and 'the people around them', this study identified six dominant inductive themes: 1) Range of sports played – participants tended to engage in a diverse range of sports early on before specialising at a later stage; 2) Young for the team – participants tended to be the youngest in their team, either as a result of 'playing up grades' or due to selection into representative teams at a young age; 3) Types of play – participants experienced a range of play activities, however, they tended to be unstructured, risky, outdoors and ultimately driven by the participants themselves; 4) Roaming and responsibility – largely supported by the community and the people around them, a large amount of trust and responsibility was given to participants from an early age; 5) Overcoming challenges – throughout their careers, participants identified a range of challenges. The most dominant were related to a lack of quality facilities, the large amount of travel required to compete and the cost of sports participation; 6) Support – four key groups of people -- parents, siblings, coaches and peers -- were identified as major contributors to the development of the participants, and all played dynamic and interactive roles.

What is evident from these results is that athletes from smaller rural and regional communities across New Zealand share some unique commonalities in their sport and play experiences. These are likely to be at odds with those experienced by their more urban counterparts. It is clear that an athlete's experience is influenced by a multitude of elements which overlap and interact to make these athletes who they are. The following chapter will

discuss in more depth the themes outlined in this chapter and relate them back to existing literature.

Chapter 5: Discussion

5.1 Introduction

The purpose of this study was to take a closer look at what contributes to the development of New Zealand's top athletes who originated from rural and regional communities, with a particular focus on their early sport experiences, their early play experiences, and the people around them. In the previous chapter, data from semi-structured interviews with eight Black Sticks Hockey players was presented. Following the recommendations of Braun and Clarke (2006) and Tavory and Timmermans (2014), the data was thematically analysed both 'deductively' and 'inductively' to form what has been termed a more 'abductive' approach (Tavory & Timmermans, 2014). Aligning with qualitative descriptive methodology (Sandelowski, 2010), the process saw the findings presented as a straight description of the participants' experiences. The dominant themes include: 1) Diverse range of sports played; 2) Young for the team; 3) Types of play; 4) Roaming and responsibility; 5) Overcoming challenges; 6) Support. In this chapter, each of the dominant themes will be discussed in more detail, relating the findings to existing literature.

5.2 Themes

5.2.1 Diverse range of sports played

The first major area of discussion is specifically related to the sport experiences of the participants. This study initially targeted the 'early' sport experiences, focusing on the 'sampling' years from approximately age 6 to 12 years old. However, it soon became clear that in order to fully understand these early experiences, it was essential to have a complete picture of the participant's entire sporting pathway from their initial engagement with sport through to becoming a Black Stick. This was due to the unique and diverse nature of each participant's experience, and therefore, a full context was gained through knowledge of their sporting pathway in its entirety.

Through the interview process, sporting timelines of the participants were extrapolated from the interview data (Appendix G). All but one participant identified a sports experience characterised by a diverse range of sports engagement commencing at a relatively young age. Illustrating the individuality of these pathways, two examples (Figures 4 and 5) are presented below:

Figure 4 Participant 1 Sporting Timeline. Timeline template adapted from Hodge et al. (2012).

Figure 5 Participant 7 Sporting Timeline. Timeline template adapted from Hodge et al. (2012).
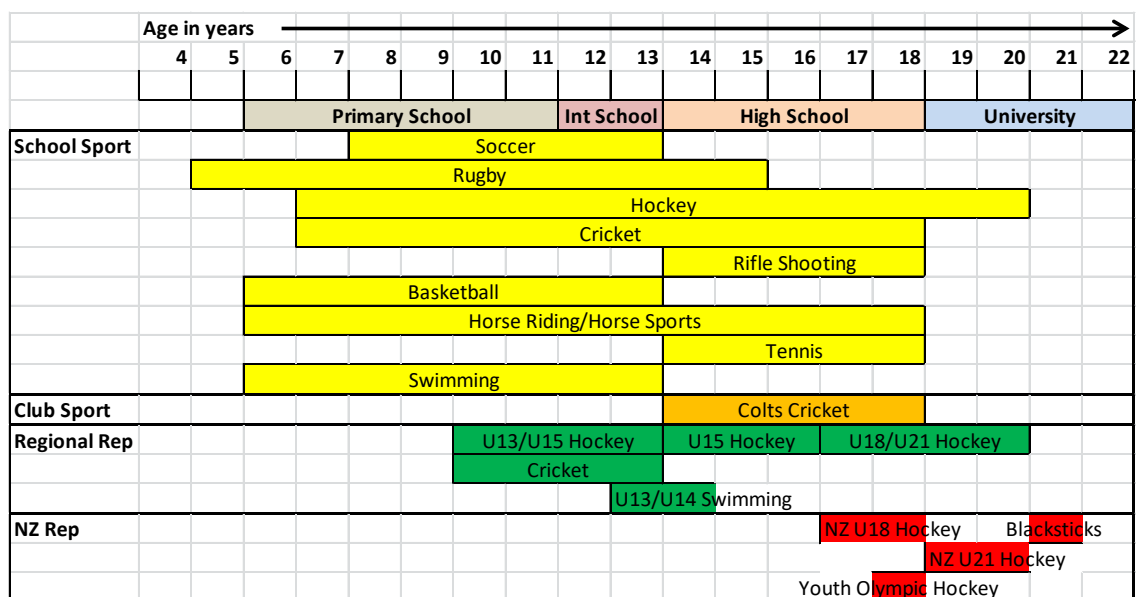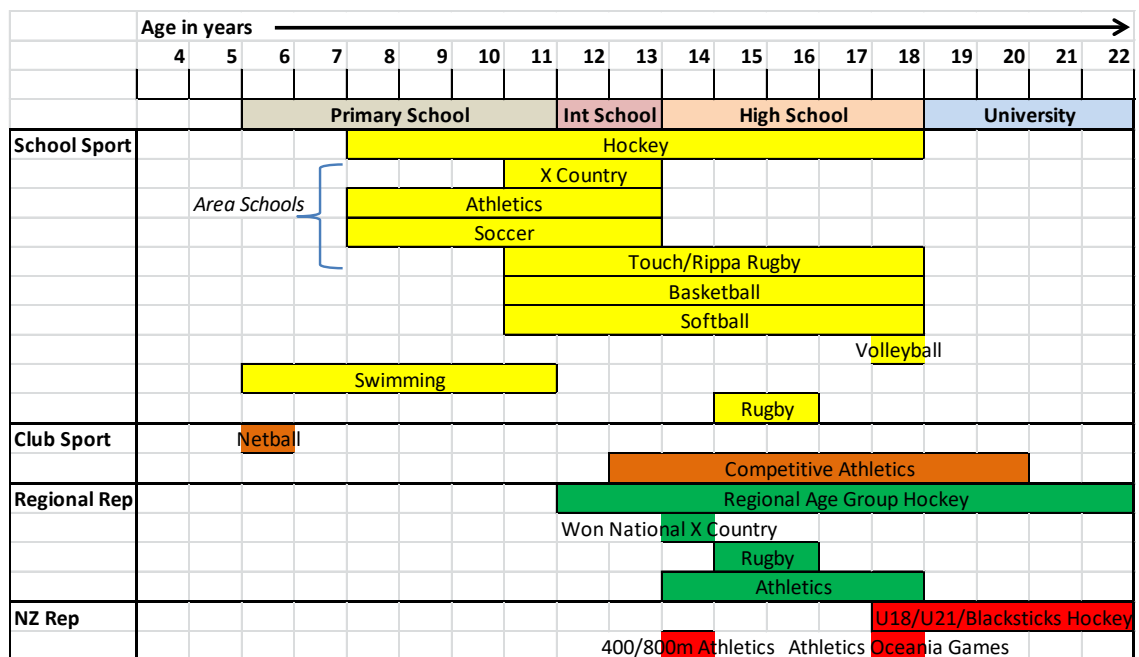
Figure 4 and 5 clearly outline the diverse range of sports engagement for these participants. This sports participation included both individual and team sports in school environments, club environments, and the representative space.

For the past few decades there has been increasing pressure to specialise early in many sports in order to achieve elite success (Anderson & Mayo, 2015; Côté et al., 2012). Although this early specialisation approach has been a successful pathway for athlete development

(Anderson & Mayo, 2015; Helsen et al., 1998; Smith, 2015), the sport experience data from this study clearly supports early sampling as an alternative route to success.

The sporting timelines (Figures 4 and 5) illustrate the unique and diverse nature of each athlete's developmental pathway, but they also provide the ability to reflect on an athlete's entire experience from initial engagement in sport through to elite success. This in turn provides a more accurate tool for comparison to existing models of sport participation. Within current sports literature, there are a number of athlete development models that exist, proposing a range of different stages and phases that athletes will go through on their pathway to success (Bruner et al., 2009; Goodway & Robinson, 2015). However, the sport experience findings of this study align closely with what has been characterised as the most prominent athlete development conceptualisation (Bruner et al., 2010), namely Côté and colleagues' 'Developmental Model of Sport Participation (DMSP)' (Côté, 1999; Côté et al., 2012), described in the literature review. There are clear parallels between the participants' paths (Figures 4 and 5) and the DMSP. In particular, from the beginning of their sport engagement, participants tended to follow an 'early sampling' pathway (Côté, 1999; Côté et al., 2012). Furthermore, participants 'sampled' a range of sports early on before focusing their sports participation and eventually achieving elite status, while continually maintaining an enjoyment for their sport.

To emphasise the parallels between the early sampling pathway (Côté, 1999; Côté et al., 2012) and the results from this study, Table 4 below restates the seven postulates of early involvement in sport (Côté et al., 2009; Côté et al., 2012) and relates each one to the findings derived from this study's interviews with participants. Outlined in the literature review section *2.3.1 Early specialisation vs early sampling*, each of these postulates are clearly reflected in the findings of this study:

Table 4 *Seven postulates of early involvement in sport in relation to the current study*

Postulate	Findings of current study
Postulate 1: Early diversification (sampling) does not hinder elite sport participation in sports in which peak performance is reached after maturation	Participants were not hindered by their early diversification; in fact they perceived that it supported their development to achieving elite status.
Postulate 2: Early diversification (sampling) is linked to a longer sport career and has positive implications for long-term sport involvement	All participants still had a clear passion for sport and indicated sports engagement for many years to come.

Postulate 3: Early diversification (sampling) allows participation in a range of contexts that most favorably affects positive youth development	Participants commented on this range of contexts and the positive development that they afforded.
Postulate 4: High amounts of deliberate play during the sampling years build a solid foundation of intrinsic motivation through involvement in activities that are enjoyable and promote intrinsic regulation	All participants reflected high levels of motivation and enjoyment within their sporting pursuits.
Postulate 5: A high amount of deliberate play during the sampling years establishes a range of motor and cognitive experiences that children can ultimately bring to their principal sport of interest	Participants highlighted the range of transferable skills developed through these experiences.
Postulate 6: Around the end of primary school (about age 13 years), children should have the opportunity either to choose to specialize in their favorite sport or to continue in sport at a recreational level	Participants began to narrow their sports focus as they progressed through their schooling careers.
Postulate 7: Late adolescents (around age 16 years) have developed the physical, cognitive, social, emotional, and motor skills needed to invest their effort into highly specialized training in one sport	As the needs of their chosen sport progressed and participants developed, they successfully specialised in hockey

The participants in this study were well aware of the benefits of 'sampling' a range of sports. These perceived benefits included: the ability to figure out what they were good at; playing for enjoyment rather than for status; self-determination in choosing the sports they played; developing transferable skills such as vision, hand eye coordination, movement and footwork; the ability to see the bigger picture and understand the game better; good 'grounding' in a range of skills; and finally the development of skills that contributed to them being a better hockey player. These sentiments are echoed throughout the sporting literature where the benefits of a more diverse early sports experience have been outlined to include: the development of essential fundamental movement skills (Fransen et al., 2012; Goodway & Robinson, 2015; Phillips et al., 2014; Thomas & Wilson, 2014); access to a range of sports (Goodway & Robinson, 2015); sustained motivation towards sport later in life (Côté & Hancock, 2016; Goodway & Robinson, 2015); higher self-determination (Moesch et al., 2013); development of fitness (Fransen et al., 2012); and increased enjoyment (Côté & Hancock, 2016).

The findings from this study also provide evidence that an athlete can come late to the representative space and still succeed. As well as providing further support for an early sampling pathway (Côté, 1999; Côté et al., 2012), this finding draws some parallels to those of Hodge et al. (2012) who found that some athletes became involved in the sport that they ultimately excelled at only in their late teens, after an initial stage of diverse sports participation. Moesch et al. (2013) also highlight the benefits of a late arrival to the elite scene, associating it with higher levels of self-determination. The findings of the current study reinforce the sampling pathway as something that does not inhibit success, but instead, supports it. In fact one particular participant indicated that her late introduction to the sport meant that she was still fresh and enjoyed it, while others who had specialised earlier were 'burning out' or 'pulling out'.

The notions of burning out or pulling out highlight the stark contrast between the benefits of sports participation and the potential pitfalls of specialising in a sport too early. These potential pitfalls have been detailed in the literature review. They include: loss of enjoyment and burnout (Bergeron, 2010; Côté & Hancock, 2016; Fraser-Thomas, Côté, & Deakin, 2005; Smith, 2015); shortened peak performance, increased dropout/burnout, and increased injuries in young athletes (Côté et al., 2012); loss of motivation and less adherence to sport (Fransen et al., 2012).

However, it is important to acknowledge that for one participant in this current study, following an 'early specialisation' pathway resulted in success as an elite athlete. She specialised early in the sport of hockey and proceeded to focus primarily on this sport for the bulk of her career. However, this participant also stopped playing hockey for periods during her development. This participant acknowledged that she had a very supportive environment, highlighting the impact that an athlete's surrounding environment can have on their development. It potentially made all the difference for this athlete, who specialised early, but still remains passionate about sport. This finding supports those of Larson et al. (2019) who note that, provided it is accompanied by the appropriate conditions, such as enjoyment, autonomy and competency, an 'early specilisation' pathway may not be detrimental. For this participant, the supportive environment included the community, the school, peers and family. There is a large body of literature examining the effect of the prominent members of an athlete's environment (e.g. Balish & Côté, 2014; Bowers & Green, 2013; Côté, 1999; Poux & Fry, 2015). In turn these members can have a powerful impact on the motivational climate that

is produced. The prominent members of the participants' environment will be discussed further in the 'support' theme.

Participants of this study also narrowed their sporting focus and began to specialise as their careers progressed. This is in line with the DMSP, which proposes that athletes tend to narrow their focus around age 13 to 15 (Côté, 1999; Côté & Hancock, 2016; Côté et al., 2012). What is less explicit in the works of Côté and colleagues (Côté et al., 2012) are the reasons for specialising at this stage. Participants in this study mentioned a variety of reasons but the dominant ones were clashing timetables of their chosen sports codes with other sports codes; support and input from coaches; the occurrence of serious injuries; and their success as elite athletes. However, despite these dominant reasons, for most participants, the timing of their sporting focus reflects the second phase of Cote and colleagues' DMSP (Côté et al., 2012).

5.2.1.1 Clashes in timetables

The traditional sporting landscape in New Zealand sees sports played in evenings or on weekends. Inevitably, when one participates in a diverse range of sports, there is bound to be a clash in schedules. In the past, seasons have dictated the timetables of respective sports codes, which often allowed for participation in both winter and summer codes. However, this solution does not work for athletes who wish to play more than one winter or summer code. The demands and commitments required to participate in sport are continually increasing (Bergeron, 2010) as is the difficulty of maintaining a diverse sports experience. Bergeron (2010) attributes these demands to the ever increasing conformity of children's sport to the elite adult model. In more recent times, sports codes have begun to spread their seasons out, where traditionally winter codes now have summer competitions or vice versa. Examples include summer hockey leagues (Hockey Northland, 2019), or winter indoor cricket competitions (Auckland Cricket, 2019). This shifting landscape has made it increasingly difficult for athletes to be engaged in a range of sports all year round, which in turn could have consequences for athletes. One of the key findings from Balish and Côté's (2014) investigation into a small successful sporting community in Canada was that, due to the small number of athletes available, they could only ever form one team and therefore clashes of scheduling was never an issue. This perhaps justifies the need for sporting codes within New Zealand to collaborate in providing athletes with the ability to maintain diverse sports participation.

5.2.1.2 Input from coaches

The findings of this study clearly indicate that coaches play a role in the decisions that athletes make with regard to sports choices. The coach's impact in this study was generally one of assisting the athletes' progressions, a finding which supports the need for coaches to be aware of the power position they are in. In an athlete-centred coaching approach (Kidman & Hanrahan, 2010), the athletes' needs should be first and foremost when it comes to providing advice. In order for children to stay involved in sport, coaches' behaviours need to match the needs of the athletes (Bailey et al., 2013). The influence of coaches on athletes' decision making is only one of many ways in which a coach impacts on an athletes' sports experience (Benczenleitner et al., 2013; Fraser-Thomas & Côté, 2009; Fraser-Thomas et al., 2008; Kidman & Hanrahan, 2010; Poux & Fry, 2015; Storm et al., 2014) and the role of the coach will be discussed further within the 'support' theme.

5.2.1.3 Injuries

Injuries are often an unfortunate by-product of sport participation (Caine & Purcell, 2016). For some of the participants in this study, injury or the risk of injury were also identified as factors contributing to the narrowing of their sporting focus. While injuries can happen for a range of reasons, **Participant 6** attributed his injury to 'overuse': *"It was just from tennis, from overuse".*

This highlights some important considerations within youth sport practice. Although, increased risk of injury or overuse injuries are often associated with a more specialised sporting pathway (Côté & Hancock, 2016; Goodway & Robinson, 2015; Fransen et al., 2012; Malina, 2010; Smucny et al., 2015), **Participant 6** had enjoyed a diverse 'early sampling' sports experience. This indicates that the level at which an athlete participates and the associated frequency of their sport involvement may play an important role. For the majority of participants, their involvement in a range of sports was compounded by the high levels at which they were involved, with a large proportion playing a range of sports to representative level. This adult driven elite sports environment (Bergeron, 2010), which is often associated with high levels of deliberate practice (Côté, 1999; Côté et al., 2012), creates a recipe for disaster when the athlete's wellbeing is considered.

5.2.1.4 Success

Success can mean different things to different people, but for participants in this study, success was defined as becoming elite and being selected into representative teams. Subsequently, this elite success impacted on the participants in a range of ways. Linked closely to perceptions of competence (Harwood et al., 2015), success is identified as a significant motivator (Bailey et al., 2013; Benczenleitner et al., 2013; Bollok et al., 2011; Rottensteiner et al., 2015). Participants highlighted success as a key motivator for their sports participation and served to focus their sporting choices in a number of ways. As the demands of the elite space took hold, participants chose to withdraw from other sports in order to succeed at hockey. Although largely perceived in a positive light, success in hockey came with the price of sacrificing their diverse sports participation which, as one participant highlights, giving up some sports was quite challenging.

> **Participant 3:** *Definitely, I didn't like it when I had to specialise in a sport because I loved doing all of them so much. So that was probably one of the challenges because I wanted to go away for soccer, and hockey, and basketball.*

The findings identified in the 'diverse range of sports played' theme support previous literature (e.g. Côté, 1999; Côté et al., 2012) that advocates a more diverse 'sampling' route as an equally legitimate pathway to elite performance and this route may afford a more rewarding and beneficial experience for athletes. This goes a long way to support Sport New Zealand in dispelling the 'myth' that early specialisation in sport is the only pathway to elite status (Sport New Zealand, 2016).

5.2.2 Young for the team

The young age of participants in relation to the teams they played for was a major point of discussion within this study. This included playing up grades (i.e. with older children), playing in adult competitions while still a child, or being selected into representative sides as the youngest member of the team. While challenging at times, 'playing up grades' was generally spoken about as having many benefits. Being selected into a team at a younger age often meant that athletes had a longer time in a team. This allowed players to develop confidence within that environment and to eventually become one of the senior players. These findings support those of Balish and Côté (2014) who note that coaches encourage the practice of 'playing up' in order to develop the younger players.

Although, there is a significant body of literature around the relative age of athletes, the majority of sports literature highlights being relatively older than your sporting peers as a key indicator of elite success (Bruner, Macdonald, Pickett, & Côté, 2011; Cote, MacDonald, Baker, & Abernethy, 2006; Musch & Grondin, 2001). The findings of this study suggest that social, environmental and cultural practices also have a powerful influence on athlete pathways. At times the environmental constraints of small schools, or limited availability of, and access to, facilities and competition resulted in participants playing sport with a mix of ages and genders; at other times, athletes chose to play up grades. Whether by necessity or choice, the relative age of athletes in relation to their team members is partly shaped by their surrounding environment. For participants in this study, parents (Côté, 1999; Wheeler & Green, 2014; Wolfenden & Holt, 2005), siblings (Fraser-Thomas & Côté, 2009), coaches (Benczenleitner et al., 2013; Fraser-Thomas & Côté, 2009; Phillips et al., 2014; Poux & Fry, 2015), peers (Balish & Côté, 2014; Kilpatrick et al., 2005; Fraser-Thomas & Côté, 2009) and the greater community (Balish & Côté, 2014; Bowers & Green, 2013) supported not just their sports participation, but the practice of playing up grades or playing in adult competitions while still a child. The social, environmental and cultural practices experienced by the participants of this study are unique to their rural or regional setting, which in turn has impacted directly on their development into elite athletes. These findings support those of Carison (1988) and Bell et al. (2018) who found the unique characteristics of a more rural experience to be important contributors in positive athlete development.

5.2.3 Types of play

There are many types of play referenced throughout the literature (Côté, 1999; Sandseter, 2009; Walters et al., 2018); likewise, the types of play referred to by the participants of this study also varied. The accounts of all participants referred to different forms of 'deliberate play', often involving unstructured, modified versions of sport with their friends and family (Côté, 1999). The benefits of these 'deliberate play' experiences are numerous; Bowers and Green (2013) state that, "playing in unstructured settings actually changes the way participants think about their experiences playing organized sports (and vice versa) with both settings providing meaningful experiences capable of connecting participants to the community" (p. 422). They go on to say that these unstructured settings allow athletes to practice things without the repercussions or restrictions of structured sport, such as being more comfortable in making

mistakes and trying out different things (Bowers & Green, 2013). Balish and Côté (2014) support this in finding that their participants spent large amounts of time in youth-led sporting activities that occurred in local recreational areas. Moreover, Forsman, Blomqvist, Davids, Konttinen and Liukkonen (2016) observed that athletes with more experience of sport-specific play and practice during childhood were more likely to be selected for national youth teams at 15 years. Arguably, the selection into representative teams of the athletes in this current study has similar roots.

Most of the participants in this study reflected on a childhood of play activities that sit more within the 'risky play' (Sandseter, 2009) or 'real play' (Walters et al., 2018) definitions. Examples include playing near water, climbing trees, riding bikes at high speed, or even disappearing on the family farm. Notably, these activities took place in outdoor settings. The benefits of play are many and have been detailed in the literature review chapter. They include learning societal roles, norms, and values and developing physical and cognitive competencies, creativity, self-worth and efficacy (Brussoni et al., 2012; Milteer & Ginsburg, 2012); and the development of decision-making skills (Berry et al., 2008). Outdoor play and learning is associated with developing motor fitness and abilities, environmental awareness and navigation competencies, as well as promoting creativity (Brussoni et al., 2012; Taylor & Kuo, 2006). Likewise, risk taking has a range of benefits, including building one's self-confidence (Rosin, 2014); developing critical thinking skills, physically active lifestyles, self-regulation skills (Dietze et al., 2013); developing risk-assessment skills and responsibility for one's own safety (Bourke & Sargisson, 2014); developing one's happiness, well-being and resilience (Niehues et al., 2015); and improved self-confidence and the ability to cope in social situations (Christie et al., 2014). In New Zealand, play is closely linked to ideas of freedom and creativity (White et al., 2009). This rang true for the participants of this study who were often involved in more creative and imaginative play. These early play experiences that emerge from living in rural or regional areas could be credited with enabling the participants of this study to develop the essential skills necessary to overcome the many challenges inherent in their path to success and to come out on top.

5.2.4 Roaming and responsibility

Participants were raised with shouldering large amounts of responsibility and trust at a relatively young age. Reflecting a 'rural' upbringing, this trust and responsibility ranged from

being given important jobs to the care and utilisation of animals on the farm (e.g. dogs, horses, pet lambs, etc). Trust and responsibility were also evident in the sport and play experiences of participants. Although parents had a presence, partipants were, as children, allowed to roam unsupervised and were given responsibility to make their own decisions. The notion of roaming unsupervised is akin with Sandseter's (2009) concept of play where participants can disappear or get lost. While risky play has some benefits (e.g. Bourke & Sargisson, 2014; Dietze et al., 2013; Niehues et al., 2015; Rosin, 2014) participants' accounts of their childhood reflect the large amounts of responsibility they were given at a relatively young age.

Supervision is an additional element of this responsibility; in a 'risk averse' western society, it has become the social norm to be a protective parent. However, overprotective parenting in low risk environments can impact negatively on children (Brussoni & Olsen, 2013; Çelik et al., 2012; Ungar, 2009). Fortunately, participants in this study enjoyed a childhood characterised by relative freedom wherein siblings or groups of friends assumed supervising roles. The relative freedom that was enjoyed by all 'rural' participants in this study supports the work of Çelik et al. (2012) who found that location played a significant role in the child rearing attitudes of parents with those who lived in urban areas being more over-protective than parents who lived in rural areas.

The participants' ability to roam was also enabled by the communities in which they grew up. The subjects felt safe to roam in the community, as people would "look out" for them. Such experiences are echoed in the study by Balish and Côté (2014), who found that parents had very few safety concerns for their children because they were assured that members of the community would always look out for their children as they roamed. Fraser-Thomas and Côté (2009) also note the importance of community support in that athletes have a more positive sports experience when they feel a sense of community in their sports clubs.

Although participants recounted generally positive community sentiments, they also noted that this community support has changed and communities are much different now to what they were five to ten years ago. This finding supports those of Walters et al. (2018), where a loss of this 'sense of community' was quoted as a key reason that parents did not let their children roam unsupervised.

5.2.5 Overcoming challenges

As evidenced by Hodge et al. (2012), the road to sporting success does not come without its challenges. Some common challenges were shared by all participants in this study. Given the 'rural' backgrounds of these athletes, one could conclude that these challenges are connected with being an athlete from the more remote regions.

5.2.5.1 Challenges

The first of the major challenges shared by participants involved facilities. This study's participants described good access to the facilities around them, but they also highlighted the limited number and generally lower quality of the facilities that were available. This finding supports those of Balish and Côté (2014) who also found that their subjects tended to have good access to their sporting facilities, but described these facilities as either poor and requiring significant improvement or just above average. Similarly, Bowers and Green (2013) found that participants had good access to their local facilities, even in their own time. Athletes having good access to low quality facilities is a key observation of successful sporting communities across the globe (Ankersen, 2012). So, although participants highlighted it as a challenge, an argument could be made for its potential contribution to their success.

In relation to hockey facilities, participants commented on the range of playing surfaces with which they had to contend. This range included grass fields, sand turfs and in some cases water turfs, with all surfaces differing in availability and quality. While challenging at the time, the inherent variability of such an experience feeds directly into the athlete's adaptability and the relative ease with which they could then apply their skills to a range of playing surfaces on the elite stage (Chow, Davids, Button, & Renshaw, 2016; Davids et al., 2008).

For the participants of this study, the challenge of travel was closely linked to accessing appropriate quality facilities and competition as well as meeting the elite demands of their hockey. The need to travel to access quality facilities aligns with findings from Dwyer et al. (2006), where this need was perceived as a barrier to physical activity participation. As is to be expected, when one is located in a remote region, an element of travel will be necessary to access the requirements of their sport. One only needs to look at the spread of population density across New Zealand (Statistics New Zealand, 2017b) to see the inevitable need for travel. Although being in small communities and, therefore small schools, often led to

individuals playing a range of sports, travel was necessary in order to advance and compete at the representative level. It is important to note that even when an athlete represents a region, training sessions and the overall base of the team are often located in the nearest major centre. For example, the Capital Hockey region covers Buller, Marlborough, Nelson, Wellington and Wairarapa hockey, spread across both North and South Islands, but is based in Wellington (Wellington hockey, 2019). For athletes dispersed across the region, their training and competition needs often means significant amounts of travel. Furthermore, the Black Sticks are based in Auckland (North Harbour Hockey Association, n.d.), effectively requiring the athletes to be available in Auckland. For athletes who hail from more remote regions, significant amounts of travel and relocation are pre-requisites to success in order to fulfil the demands of the elite sporting world.

The final major challenge faced by this study's participants was 'cost' and its overlap with travel illustrates the interconnected nature of the athletes' experience. As participants progressed up the elite pathway, these costs increased significantly as they needed to relocate and/or fund their international travelling costs to compete on the world stage. Playing sport in New Zealand is not cheap (Jackman, 2014; Thomas, 2018) and is often quoted as a reason that youth drop out of sport (Dwyer et al., 2006; Witt & Dangi, 2018) or limit adult participation (Anjali & Sabharwal, 2018; Lim et al., 2011). Basic costs such as club fees and essential equipment all add up. Travel and accessing quality competition and facilities also comes at a cost (Dwyer et al., 2006). Since hockey in New Zealand is only a semi-professional sport (Downs, 2016; Newshub, 2014; Wilson & Wall, 2016), this adds to the challenge of financial costs. Members of the Black Sticks team must balance a job and competitive sport on top of global travel for competitions, which participants indicated had costed them tens of thousands of dollars a year.

The cost of elite sport is not always financial; often it comes at a social cost where a sports focus may foster isolation from age and sex peers (Malina, 2010). For **Participant 4,** this was her experience early on and it was perceived as a real challenge: *"trying to be accepted in the social situation and being able to be with them* [friends] *[…], but obviously you had sport, so that was quite challenging".*

5.2.5.2 Motivations

Understanding the motives of an athlete serves to provide insight into how they have overcome the challenges they face. The participants in this study were highly competitive in almost all situations including family games. As a result, social sport did not tend to engage them as they were too competitive. This finding is in line with literature from the United States, where competition was ranked highly as a motivator for college students' (Kilpatrick et al., 2005) and adults' participation in sport (Lim et al., 2011). However, there is conflicting evidence in this regard, as a reduction in focus on competition and winning are often quoted as necessary strategies to keep youths engaged with sport (Bailey et al., 2013). In some cases, competition is even perceived as a potential barrier to individuals engaging in physical activity (Dwyer, et al., 2006). The success of the athletes involved in this study could be attributed to the intrinsic nature of their competitive drive. Where athletes are motivated intrinsically, they are more likely to stay engaged with their chosen sport (Benczenleitner et al. 2013; Rottensteiner et al., 2015). Participants in this study benefited from competitive motivation, which was sometimes prompted by sibling rivalry or the role modelling of parents.

Fun was also a major motivating factor for the participants of this study. 'Fun' is defined in a range of ways and can be determined by a number of factors (Visek et al., 2015; Visek et al., 2018). For the participants of this study, 'fun' was described in relation to their sheer enjoyment of, and excitement from, playing the game. Although the majority of literature focuses on the importance of 'fun' in the youth sport space (Bailey, 2012; Bailey et al., 2013; Bergeron, 2010; Walters et al., 2011), having 'fun' remained an essential motivator for these participants all the way through their development and into their elite careers. The implications of maintaining fun in sports participation is captured succinctly by Bergeron (2010): "if children and adolescents continue to play and have fun, they can enjoy the myriad benefits of healthy sports participation for a lifetime" (p. 356).

As stated previously, participants defined success as becoming elite and being selected into representative teams, which then served as an important motivator for their continued sports participation. Bailey et al. (2013) link success to an increase in perceived competence, which in turn increases motivation. This notion of perceived competence is reinforced by Rottensteiner et al. (2015), who draws links between motivation and persistence with organised sport. Benczenleitner et al. (2013), also make reference to success as a motivator. Likewise, as

the participants of this study became successful they were in turn motivated to do more and become more successful.

5.2.5.3 Strengths

Of equal importance to an athlete's motives are the strengths they possess and draw on in times of need. These strengths are often shaped through overcoming adversity and highlight some of the important needs for an athlete to succeed in their chosen sport. They also bring to light the potential linkages between the way an individual grows up and the values and attributes with which they are then bestowed.

Many of the participants commented on their ability to put in the hard work when required. This 'work ethic' was often attributed to their responsibilities and commitments growing up, such as working on the farm or being a contributing member of their family. This was also linked closely to notions of gratitude, respect and not taking things for granted. Such attributes are a product of their surrounding environment, providing an example of the inseparability of a person and their environment (Chow et al., 2016; Davids et al., 2008). As these athletes grew up, the role models around them (Sukys et al., 2014) and the expectations placed on them shaped their understanding that a good work ethic is essential and yields good results. These findings associated with work ethic align with sport literature across the globe. Although not underpinned by research, Ankersen (2012) provides an interesting commentary on the development of high performance athletes, and suggests that 'work ethic' is more important than quality facilities in successful sporting communities (for example Stephen Francis's stable of Jamaican sprinters and the world class runners produced in Iten, Kenya). More specifically, Fraser-Thomas and Côté (2009) positively link the development of work ethic to the challenge placed on athletes by the elite sporting environment. In New Zealand, Hodge et al. (2012) note that 'work ethic' was outlined by participants as an important component of athletic success.

A loss of enjoyment is often associated with the early specialisation pathway to elite performance (Côté & Hancock, 2016; Cote et al., 2012). Conversely, an early sampling pathway is linked to increased levels of enjoyment (Côté & Hancock, 2016; Côté et al., 2009; Côté et al., 2012). Given the early sampling trajectories of this study's participants, it is not surprising that they highlight enjoyment as a key factor of their experience. When investigating the perceptions of expert players and coaches on the acquisition of expertise in cricket fast

bowling, Phillips et al. (2014) confirm the importance of an enjoyment climate early in development. This sentiment is reiterated by Bailey et al. (2013) when examining why children join and remain involved in sport. In fact, Hodge et al. (2012) note that all the athletes interviewed in their study emphasised a need to enjoy what they were doing. Notions of 'fun' and 'enjoyment' were very closely linked for the participants of this study. While fun was a key motivator for their sports participation, it was clear throughout the interview process that all participants shared an enjoyment and passion for the sports that they played, and this has continued into their elite experience. All Black legend Israel Dagg acknowledged the importance of enjoyment and fun in playing elite sport when he indicated that he had considered retiring in 2015 when he was not enjoying himself or having fun playing rugby (NZ Herald, 2019).

Closely linked to the enjoyment that the participants had for their sport, was their ability to be self-determining and to make their own choices. When speaking of their early sports experiences and the diverse range of sports they could play, participants highlighted self-determination as a perceived benefit of this diversity. As one of its central tenets, self-determination theory (SDT) proposes that people need to feel autonomous to achieve optimal outcomes (Deci & Ryan, 2008). Although the eventual need to specialise in their chosen sport was not always entirely self-determined by the participants of this study, the importance of self-determination in early environments is evident. Bailey et al. (2013) make reference to SDT and the importance of coaching environments that satisfy the basic human needs. This is taken further by Moesch et al. (2013) who, when comparing Danish elite and near elite athletes, found that elite athletes started their career later and subsequently demonstrated higher levels of self-determination. Clearly, the ability to be self-determining has generated positive sports experiences for the participants of this study.

The ability to cope with challenges has been identified as key to athletic success (Hodge et al., 2012). In addition to this, commitment, discipline and perseverance are required in the elite sporting environment (Fraser-Thomas & Côté, 2009). For those involved in the current study, the 'rural' athlete experience includes some unique challenges that athletes must contend with and develop coping strategies to overcome. Learning to cope with these challenges has major benefits. For example, learning to play sport in poor quality or continually changing facilities serves to encourage variability and adaptability within the athlete's development (Davids et al.,

2008). Likewise, the expectations placed on these athletes at a relatively young age, which encourages an element of early maturity, responsibility and independence, all feed into their drive to be self-determining (Deci & Ryan, 2008). Dweck (2012) suggests that having a 'growth' mind set generates 'character' and that "athletes with a growth mind set find success in learning and improving, not just winning" (Dweck, 2012, p. 160). Dweck's (2012) concept of 'growth' or 'fixed' mind sets can be applied to the athletes in this study, as it is clear that they all have a 'growth' mind set which has allowed them to learn from, and overcome, challenges rather than be held back by them. It is also important to acknowledge the supportive climate surrounding these athletes. A high level of emotional support from parents has been found to have a positive effect on active coping strategies (Lafferty & Dorrell, 2006; Tamminen & Holt, 2012).

5.2.6 Support

It was clear from the data that the people around the participants had a significant impact on their growth and development. The socio-emotional environment is often termed the 'motivational climate' and can include the influence of coaches, parents, siblings and peers as well as the athlete's wider community (Curran et al., 2015; MacDonald et al., 2011; Domingues & Gonçalves, 2013; Poux & Fry, 2015; Storm et al., 2014).

5.2.6.1 Parents

Côté (1999) notes that parents play a significant and changing role through the different stages of the developing athlete. Participants in this study indicated the dynamic nature of their parents' roles. In line with Côté, (1999) early in the participants' careers, parents played the role of introducing participants to sports. Role modelling in sport is evident in the sport literature. For example, Sukys et al. (2014) highlight causal links between parents' exercise habits and that of adolescents. As current study participants progressed through their sporting careers, the role of the parents shifted towards support in the form of time, finance and transport. It is argued that the perceived benefits of sports participation prompt parents to invest substantial amounts of time and money into their children's sporting pursuits (Wheeler & Green, 2014; Wolfenden & Holt, 2005). Although these time and financial commitments placed a degree of stress on the family's resources, participants believed that the availability of their parents was a by-product of the environment in which they grew up. In 'rural' settings, participants were often from farming families where parents had the flexibility to control their work hours to fit around their child's

sporting endeavours. Participants did highlight the financial costs of their sport, particularly as they progressed in their careers. Certainly, the cost of sports participation across the world has been reported to cost families large amounts of money and to add unnecessary stress to the family unit (Dunn et al., 2016; Harwood & Knight, 2009). In New Zealand, the costs of sports participation are also significant (Jackman, 2014;Thomas, 2018). Despite this, the financial support from the parents of these athletes has continued, even into the elite space.

Another form of parental support that participants highlighted was the parent's active involvement in their sport. As well as providing tangible support with things such as travel, money, and time (Wheeler & Green, 2014; Wolfenden & Holt, 2005), parents were often in a volunteer coaching role. According to Doherty (2006), this is a common occurrence and, by all accounts, it had a positive impact on the participants of this study. This finding supports those of Trussell (2016), who found positive correlations in young people's perspectives of parent volunteerism in community youth sport, particularly when parents were involved in high profile roles such as coaching. Although Weiss and Fretwell (2005) reiterate these positive outcomes, they also highlight some of the potential negative consequences of fulfilling these roles.

The findings from this current study support global sports literature in indicating that the 'motivational climate' created by an athlete's parents can have a significant impact on the athlete's outcomes (Bebetsos et al., 2014; Domingues & Gonçalves, 2013). Parents provide essential emotional, informational and practical support (Holt & Dunn, 2004). The motivational climate created by parents has been found to be a significant predictor of the offspring's self-esteem, levels of anxiety and autonomous regulation (O'Rourke et al., 2014). However, parental influence is not always positive. Dorsch et al. (2016), for example, note that while parents may contribute to the self-efficacy and satisfaction of their athlete children, they can also have a negative effect on the emotional and functional independence of their children.

Overall, the participants in this study were fortunate to have a very supportive family environment that resulted in positive outcomes for them as athletes. This is in line with sport literature where perceived support from parents leads to positive outcomes (Knight, Boden, & Holt, 2010; Turman, 2007; Weiss & Fretwell, 2005; Wolfenden & Holt, 2005).

5.2.6.2 Siblings

Siblings played a lesser, but still essential role in the participants' development. As well as being key playmates and 'practice buddies', in a lot of cases, siblings were the reason participants took up a sport. This sibling influence supports findings from Fraser-Thomas and Côté (2009) and aligns with the role modelling carried out by parents (Côté, 1999; Sukys et al., 2014). Children typically feel safe when playing with siblings and friends (Walters et al., 2018), and often, siblings become key playmates. For the participants of this study, having siblings as key playmates was especially significant since they were located in more remote regional communities. The isolation meant that immediate family members were the people with whom participants had the most interaction. On the flip side, siblings could also have a negative effect and, in some cases, were the reason a participant could not play a sport, as the family was stretched for resources (Dunn et al., 2016; Harwood & Knight, 2009; Wheeler & Green, 2014; Wolfenden & Holt, 2005).

5.2.6.3 Coaches

Coaches played a powerful role in creating and influencing the sports climate of the participants. As well as being identified by participants as having an influence on their sports choices and focus, coaches often assisted participants in achieving their elite status through unrelenting support. This sometimes entailed more explicit and forceful direction. Every participant in this study reflected on their positive experiences with coaches. These findings are consistent with current sporting literature, where Poux and Fry (2015) note that American division 1 athletes benefit from having a caring and task-involving team climate created by coaches, in developing them as people and not just as athletes. Benczenleitner et al. (2013) also support this argument, highlighting the importance of the coach in motivating elite hammer throwers. In addition to being good role models overall, coaches can have a positive effect when they demonstrate belief in their athletes, make good connections, communicate well, and provide constructive feedback (Fraser-Thomas & Côté, 2009). These positive effects were evident in the early formative experiences of participants in this current study.

5.2.6.4 Peers

The final major figure of influence in the lives of the athletes in this study were their peers. Participants often interacted with the same peers throughout their careers. Playing in the same

team with the same people through the grades was a common occurrence, as was competing with or against the same people at different tournaments and events. Participants indicated forming strong bonds with other athletes as they supported each other along their sporting pathways, which were challenging at times. Socialising or spending time with friends have often been identified as reasons for sports participation (Bailey, 2012; Kilpatrick et al., 2005; Lim, et al., 2011; Walters et al., 2011). The literature indicates that interactions with peers can be highly beneficial to the success of athletes. Balish and Côté (2014) suggest that staying and playing with the same athletes through the various grades is a contributing element to the sporting success of a community. Fraser-Thomas and Côte (2009) argue that peers play a role in developing the work ethic of athletes, offer opportunities for close and unique friendships built on common interests, enable special relationships to develop with different aged peers, and represent opportunities for leadership and role modelling.

The saying 'it takes a village to raise a child' is clear when the supportive socio-emotional environments that surrounded the participants of this study are closely examined. Although each participant in this study is a successful athlete in their own right, it is through the support of others that their success was made possible. In filling the essential roles that often changed as participants progressed in their sporting careers, these key people are essential to their success.

5.3 Conclusion

For the rural and regional athletes involved in this study, the foundations of their elite sporting success were formed through an early sampling of a range of sports. These sporting experiences were supported by a physical, social and cultural environment that saw them benefit from often being one of the youngest members of their team. This environment also supported large amounts of roaming and responsibility, coupled with play experiences that were largely unstructured, outdoors and risky. Although, this environment proved challenging at times, the support rendered by key people allowed the participants to overcome these challenges and to ultimately succeed. As Gordon (2014) states, "whatever potential we may have when we come into the world, the socio-emotional environment of our earliest relationships forms the soil in which this potential either blossoms or withers" (p. 238). Since early experiences have an immense impact on one's growth and development, it is essential to consider the nature of these experiences. It is clear that the participants of this study shared

some commonalities in their sport and play experiences. These unique characteristics provide some insight into the developmental experience of athletes who begin their journey in more remote and regional spaces.

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6: Conclusion

The following section will summarise the key findings from this research and make some recommendations for future practice. The strengths and limitations of the study will be acknowledged followed by recommendations for further research.

6.1 Summary of findings

The findings from this study illustrate that athletes from more remote regional communities share a range of experiences that appear to be beneficial to their development. The unique sport experiences, play experiences, and relationships with the people around them contributed significantly to their success. These findings are consistent with international research findings (e.g. Ankersen, 2012; Balish & Côté, 2014; Bell et al., 2018; Bowers & Green, 2013; Carison, 1988).

Within their sports experiences, the majority of participants engaged in a diverse range of sports from a relatively young age. This finding clearly advocates for the 'sampling pathway' as a valid pathway to athletic success (Côté, 1999; Côté et al., 2012). Social and cultural influences also played a part in their development as elite athletes, with the participants benefiting from being the youngest member of the team for a large proportion of their sporting careers.

Within the play experiences of study participants, it was clear that unstructured and risky outdoor play were common to the experience of a regional upbringing. The developmental experiences of study participants were also characterised by large amounts of roaming and responsibility, supported largely by families and communities that were safe and embracing of such practices. Given the elite success of these athletes, it is clear that these experiences were beneficial to their development.

The pathway for athletes to achieving elite success is fraught with challenges, and these rural and regional athletes had some unique challenges to overcome. These included a lack of quality facilities, large amounts of travel, and high costs. In overcoming these challenges, the motivations and strengths of an individual are key. The athletes in this study appeared to be motivated by competition, fun, and success, which provide a level of insight into the elements of a sustainable sporting model. These motives were reflected further in what they perceived to be their strengths as an athlete, which as a result of their unique experiences included work ethic,

enjoyment, self-determination, and resilience. It should be noted, however, that the participants in this study are all 'successful' athletes. The issue of cost would clearly be a barrier to many families (Dwyer et al., 2006; Harwood & Knight, 2009; Jackman, 2014; Thomas, 2018; Wolfenden & Holt, 2005), thereby reducing the number of potential athletes who are able to embark on elite pathways.

Linking directly to all their experiences were the people around the participants. Although the roles played by these people often changed as the athletes progressed in their pathways, the supportive motivational climate they provided remained constant and enabled the athletes to succeed. The key members of this supportive climate included parents, siblings, coaches and peers. This finding supports the literature that indicates the significant impact of one's socio-emotional environment on one's growth and development (Curran et al., 2015; Ibrahim et al., 2016; MacDonald et al., 2011; Domingues & Gonçalves, 2013; Poux & Fry, 2015; Storm et al., 2014).

To conclude, the findings of this study clearly illustrate that an early sampling pathway is not only a viable pathway to success, but one that provides a beneficial and positive developmental experience. This finding supports Côté and colleagues' 'Developmental Model of Sport Participation (DMSP)' (Côté, 1999; Côté et al., 2012) in that there are a number of pathways to elite success. This thesis also provides clear evidence of the benefits of an unstructured early play experience, that takes place primarily outdoors, and which encompasses elements of risk, responsibility, and freedom to roam. With social norms encouraging over-protective parenting styles (Brussoni & Olsen, 2013) and outdoor play on the decline across the globe (Barlow, 2015; Bowers et al., 2014; Brussoni et al., 2012; Hofferth & Sandberg, 2001; Karsten, 2005; Longley, 2014; Prince et al., 2013; Schofield, 2011; Valentine & McKendrick, 1997), this thesis forms a strong argument for the preservation of these valuable unstructured experiences. The findings of this study also suggest that these unstructured experiences appear to be more closely linked to the rural and regional experience. As the urban sprawl continues across New Zealand, New Zealanders are also at risk of losing such beneficial experiences. Finally, there is clear evidence throughout this research that social, cultural and physical environments, and the practices within these environments, play a powerful role in development. These environments can have a positive influence (e.g. young for the team, self-determination, work ethic, resilience, support) or negative effect (e.g. lack of

facilities, large amounts of travel, high costs). The participants involved in this study benefitted from supportive environments shaped largely by parents, siblings, coaches, peers and the surrounding community.

6.2 Recommendations for future practice

This qualitative descriptive study provides insight into the developmental pathways of successful elite hockey players from rural and regional communities. Based on the findings of this research, the following recommendations are proposed:

1. Wherever possible, a diverse, largely self-determined and less structured early sports experience needs to be encouraged in an effort to develop athletes with a good grounding and life-long passion for sport. Children are not mini adults; therefore the demands of elite adult sporting models do not apply to children.

2. As a key component of healthy development, unstructured, outdoor, 'real' play needs to be included and encouraged in developmental practices. Athlete development need not place structured sports participation above unstructured settings and, likewise, sports participation should not be at the expense of valuable playtime.

3. Finally, an athlete cannot be separated from their surrounding environment, meaning that athletic success does not hinge solely on physical ability. Therefore athlete development needs to embrace holistic practices and measures of expertise in order to ensure sustained success in the long run.

6.3 Strengths and Limitations

This study is one of the few in New Zealand to give voice to the elite athlete and to trace their developmental pathways. In using a qualitative descriptive methodology, this study has attempted to portray an accurate reflection of these participants' perspectives. The sport histories presented in Figures 3, 4 and 5, and also in Appendix G, provide a clear overview of the trajectories of these participants, and can provide useful information to inform future athlete development programmes and talent identification programmes in New Zealand sport.

It is also important to acknowledge limitations and in this study three specific limitations are identified. Since the study focused solely on the experiences of those from 'rural' regions, there was no data collected from the participants' more 'urban' counterparts. However, the purpose of this study was to explore pathways to elite sport from rural New Zealand. In New Zealand, as

elsewhere, there is an increasing focus on the centralisation of high performance sports centres (e.g. AUT Millennium situated in Auckland), which is often coupled with a specific pathway to elite success (Anderson & Mayo, 2015; Côté et al., 2012). Although this elite model has resulted in success for some athletes, there is increasing evidence of the negative consequences to such an approach (e.g. Fransen et al., 2012; Smucny et al., 2015). Global evidence highlights unique qualities within smaller communities that support athletic success (e.g. Ankersen, 2012; Balish & Côté, 2014; Bell et al., 2018; Bowers & Green, 2013; Carison, 1988). It was therefore important to explore the developmental pathways of successful high performance athletes within New Zealand who also begin their journey outside of major urban centres.

Secondly, 'rural' is an increasingly difficult term to define both here in New Zealand and globally. The intention of this study was to recruit participants from a 'rural' setting. However, due to the difficulty of narrowing down the definition of 'rural', participants in this study ranged in 'rural' status from extremely remote farming communities through to more satellite urban townships (Statistics New Zealand, 2017a). Therefore, any comparisons drawn between these experiences and other 'rural -focused' studies across the globe need to be made with caution.

Thirdly, this study was largely based on the self-perception of athletes. While one could argue that the athletes themselves are placed best to comment on their experiences, triangulation of findings with other people within the athletes' lives (e.g. parents, siblings, coaches, peers) may have provided richer more in-depth data. However, there is little evidence of research in New Zealand that has drawn upon the voices of the athletes themselves, in relation to their pathways to elite performance. In that regard, this study addresses a gap in the current literature and provides perspectives from a group that has been largely ignored in research to date.

6.4 Recommendations for further study

Although research exists globally (e.g. Balish & Côté, 2014; Bell et al., 2018; Bowers & Green, 2013; Carison, 1988) more research is needed in New Zealand to explore the pathways to elite performance across a range of sports and locations. This current study clearly illustrates the impact of the physical, social and cultural environment on the development of an athlete and future studies would benefit from investigating elite athletes from a range of socio-

economic backgrounds and geographical locations. Ultimately, gaining a better understanding of where New Zealand's elite athletes come from and having insights into the developmental experiences afforded by these backgrounds serves to foster the growth of athlete development approaches that best suit the nation's unique athletic needs.

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Appendices

Appendix A: Participant Information Sheet

Participant Information Sheet

INTERVIEWEES

Date Information Sheet Produced:

18/05/2017

Project Title

What are the early sport and play experiences of elite New Zealand Hockey players from rural and regional communities?

An Invitation

My name is Bobby Newport, I am a lecturer on the NorthTec Sport and Recreation programme and am currently completing my Master of Philosophy at AUT. I would like to formally invite you to be a participant in the research related to this qualification.

What is the purpose of this research?

This research aims to take a closer look at how smaller communities contribute to the development of New Zealand's top athletes with a particular focus on early sampling vs early specialisation as pathways to success; the place of unstructured play and risk-taking in early development; and the key elements of an athlete's motivational climate including people and relationships in athletes lives.

This research will result in the publication of a thesis as required for the Master of Philosophy qualification. In addition a journal article may also be published.

How was I identified and why am I being invited to participate in this research?

The inclusion criteria for this study are:

1. Represented New Zealand in Hockey
2. Spent your sampling years (childhood; 5–12 years) in a rural/regional area* (defined as per Statistics New Zealand, 2016).

*Rural/regional areas in New Zealand are defined using an index that measures degrees of 'rurality' and considers workplace compared with address of usual residence (Statistics New Zealand, 2016).

Through consultation with Hockey New Zealand, it has been identified that you potentially fit these criteria.

How do I agree to participate in this research?

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

If you wish to be involved please complete the attached consent form and return via email.

What will happen in this research?

This project will involve one to two hour semi structured interviews with participants. The aim is to describe the early sport and play experiences of these participants in the participants own words.

Interviews will be recorded and then transcribed verbatim for analysis. Participants will be given opportunity to review their transcripts to ensure accuracy.

Data will then be thematically analysed, identifying keys themes related to the research question.

Participants will be given access to any draft reports prior to final publication.

Pilot Interviews only

Please note that during pilot interviews, video recording will also be used. However, this video will only record the interviewer as an aid to develop their interviewing skills for the greater research project.

What are the discomforts and risks?

Due to the descriptive nature of this research, it is intended to be non-invasive and cause minimal discomfort of risk for participants. However, it will require participants to share personal experiences, for this reason all information provided by participants will be completely by their own volition.

What are the benefits?

With proposed outcomes of increased understanding in the following:

- What contributes to development and success as an athlete.

- How play (structured or unstructured), risk taking and sampling a range of sports can contribute to athlete development.

- The role of key people and relationships in athletes lives.

There are potential benefits from this research to both the athlete development and hockey communities as well as the researcher himself.

This research will result in the publication of a thesis as required for the Master of Philosophy qualification. In addition a journal article may also be published.

How will my privacy be protected?

All data provided by participants will be kept completely private and confidential. Only the researcher and his immediate supervisors will have access to this information. Data will be recorded electronically and stored securely on AUT premises.

Upon completion of this research, data will be stored securely on AUT premises for the required 6 year period, following which it will be destroyed.

What are the costs of participating in this research?

As a participant you will be required to invest a maximum of two hours to the study for interview purposes. No additional costs will be required.

What opportunity do I have to consider this invitation?

To allow sufficient time to consider this invitation please respond within four weeks of receiving this message.

Will I receive feedback on the results of this research?

Participants will be given opportunity to review their transcripts to ensure accuracy.

Participants will be given access to any draft reports prior to final publication

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, *Dr Geoff Dickson (PhD)*, *geoff.dickson@aut.ac.nz*, *(+649) 921 9999 ext 7851*.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Kate O'Connor, *ethics@aut.ac.nz* , 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Bobby Newport, bnewport@northtec.ac.nz, (+649) 470 4148.

Project Supervisor Contact Details:

Dr Geoff Dickson (PhD), geoff.dickson@aut.ac.nz, (+649) 921 9999 ext 7851.

Approved by the Auckland University of Technology Ethics Committee on 27th March 2017, AUTEC Reference number 16/435.

Appendix B: Interviewee Pre Read Interview Questions

<u>INTERVIEW QUESTIONS PRE READ</u>

EARLY SAMPLING VS EARLY SPECIALISATION

1. **Describe your childhood sports experiences?**
   a) *At what age did you first play sport?*
   b) *What sports were available to you growing up?*
   c) *Child led vs Adult Led*
   d) *Supervised vs Unsupervised*
   e) *Competitive vs Muck around/social*
   f) *Structured vs Unstructured*
      i. What are your organised/structured sport experiences? *(Timeline??)*
      ii. What sports did you play? Why?
      iii. Did you always play within your age grade?
      iv. Were you the oldest or youngest in the group?
      v. What level did you achieve?
         - *At what age did you represent your province/region?*
         - *At what age did you represent your country?*
      vi. What are your unstructured sports experiences? *(When and why did these happen, what kind of setting?)*
   g) *How did these sports contribute to your success as an athlete today?*
2. **At what age did you specialise in your current sport? Why?**
   a) *What was your perception of the pathway to elite status?*
   b) *Describe the athlete pathway for your current sport*

PLAY (UNSTRUCTURED VS STRUCTURED) AND RISK TAKING

1. **Describe your childhood play experiences?**
   a) *Child led vs Adult led*
   b) *Structured vs Unstructured*
   c) *Supervised vs Unsupervised*
   d) *Indoors vs Outdoors*
2. **What did you do to "pass the time" growing up?**
3. **Describe how free you were to roam as a child**

EMOTIONAL AND MOTIVATIONAL CLIMATE

1. **Describe the environment** *(physical and social)* **you grew up in**
   a) *Describe the importance of sport within your local community?*
   b) *Communities support for sport (i.e. access to facilities, etc)*

2. **What role did the following people play in your development as an athlete?**
   a) *Parents*
   b) *Peers*
      i. *Did athletes peer group stay in sport with them throughout the school years?*
   c) *Siblings*
   d) *Coaches*
   e) *Teachers*
      i. *Describe the importance of sport at your schools?*

3. **Passion for sport and where did it come from?**
   a) *Role models?*
   b) *Main motivating factor for participating in sport?*

4. **What are some of the challenges you have had to overcome to be the successful athlete that you are?**

   a) *What strengths (distinguishing factors) do you possess that have helped you achieve elite status?*

Appendix C: Consent Form

Consent Form

For use when interviews are involved.

Project title:	*What are the early sport and play experiences of elite New Zealand Hockey players from rural and regional communities?*
Project Supervisor:	**Dr Geoff Dickson**
Researcher:	**Bobby Newport**

○ I have read and understood the information provided about this research project in the Information Sheet dated 18/05/2017.

○ I have had an opportunity to ask questions and to have them answered.

○ I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.

○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.

○ I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.

○ I agree to take part in this research.

○ I wish to receive a summary of the research findings (please tick one): Yes○   No○

Participant's signature: ....

Participant's name: ....

Participant's Contact Details (if appropriate):

....

....

....

....

Date:

Approved by the Auckland University of Technology Ethics Committee on 18th November 2016, AUTEC Reference number 16/435.

Note: The Participant should retain a copy of this form.

page 1 of 1

Appendix D: Ethical Approval

18 November 2016

Geoff Dickson
Faculty of Health and Environmental Sciences

Dear Geoff

Ethics Application: 16/435 **What are the early sport and play experiences of elite New Zealand hockey players from rural and regional communities?**

Thank you for submitting your application for ethical review to the Auckland University of Technology Ethics Committee (AUTEC). I am pleased to confirm that your ethics application has been approved for three years until 17 November 2019.

As part of the ethics approval process, you are required to submit the following to AUTEC:

- A brief annual progress report using form EA2, which is available online through http://www.aut.ac.nz/researchethics. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 17 November 2019;

- A brief report on the status of the project using form EA3, which is available online through http://www.aut.ac.nz/researchethics. This report is to be submitted either when the approval expires on 17 November 2019 or on completion of the project;

It is a condition of approval that AUTEC is notified of any adverse events or if the research does not commence. AUTEC approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

AUTEC grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to obtain this.

To enable us to provide you with efficient service, we ask that you use the application number and study title in all correspondence with us. If you have any enquiries about this application, or anything else, please do contact us at ethics@aut.ac.nz.

All the very best with your research,

Kate O'Connor
Executive Secretary
Auckland University of Technology Ethics Committee

Cc: bnewport@northtec.ac.nz; Sarah Kate Millar; Simon Walters

Appendix E: Ethical Amendment Approval

AUTEC Secretariat

Auckland University of Technology
D-88, WU406 Level 4 WU Building City Campus
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

27 March 2017

Geoff Dickson
Faculty of Health and Environmental Sciences

Dear Geoff

Re: Ethics Application: 16/435 What are the early sport and play experiences of elite New Zealand hockey players from rural and regional communities?

Thank you for your request for approval of an amendment to your ethics application.

The amendment to allow video recording of the interviewer during the pilot interview stages has been approved.

I remind you that as part of the ethics approval process, you are required to submit the following to the Auckland University of Technology Ethics Committee (AUTEC):

- A brief annual progress report using form EA2, which is available online through http://www.aut.ac.nz/researchethics. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 17 November 2019;

- A brief report on the status of the project using form EA3, which is available online through http://www.aut.ac.nz/researchethics. This report is to be submitted either when the approval expires on 17 November 2019 or on completion of the project.

It is a condition of approval that AUTEC is notified of any adverse events or if the research does not commence. AUTEC approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

AUTEC grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to obtain this.

To enable us to provide you with efficient service, please use the application number and study title in all correspondence with us. If you have any enquiries about this application, or anything else, please do contact us at ethics@aut.ac.nz.

All the very best with your research,

Kate O'Connor
Executive Secretary
Auckland University of Technology Ethics Committee

Cc: , bnewport@northtec.ac.nz; Sarah Kate Millar; simon.walters@aut.ac.nz

Appendix F: Transcription Confidentiality Agreement

Confidentiality Agreement

For someone transcribing data, e.g. audio-tapes of interviews.

Project title:	*What are the early sport and play experiences of elite New Zealand Hockey players from rural and regional communities?*
Project Supervisor:	*Dr Geoff Dickson*
Researcher:	*Bobby Newport*

- ○ I understand that all the material I will be asked to transcribe is confidential.
- ○ I understand that the contents of the tapes or recordings can only be discussed with the researchers.
- ○ I will not keep any copies of the transcripts nor allow third parties access to them.

Transcriber's signature: ....

Transcriber's name: ....

Transcriber's Contact Details (if appropriate):

....

....

....

....

Date:

Project Supervisor's Contact Details (if appropriate):

....

....

....

....

Approved by the Auckland University of Technology Ethics Committee on 18th November 2016, AUTEC Reference number 16/435.

Note: The Transcriber should retain a copy of this form.

2 July 2015   page 1 of 1   This version was last edited in July 2015

Appendix G: Participant Sporting Timelines
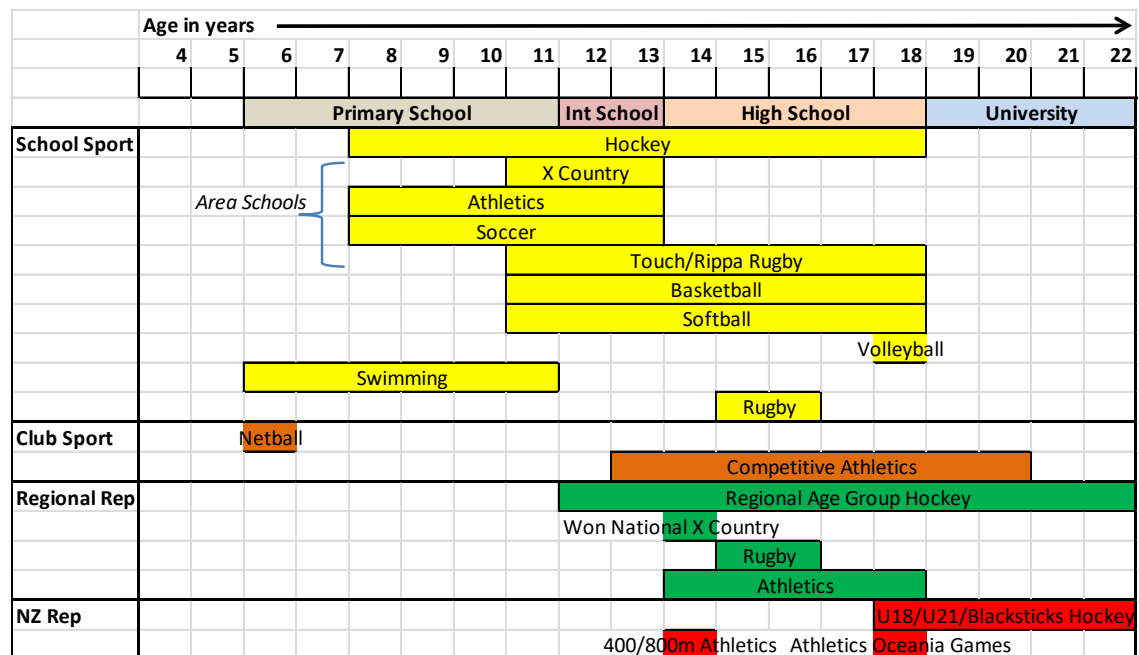
Participant 1 Sporting Timeline. Timeline template adapted from Hodge et al. (2012).
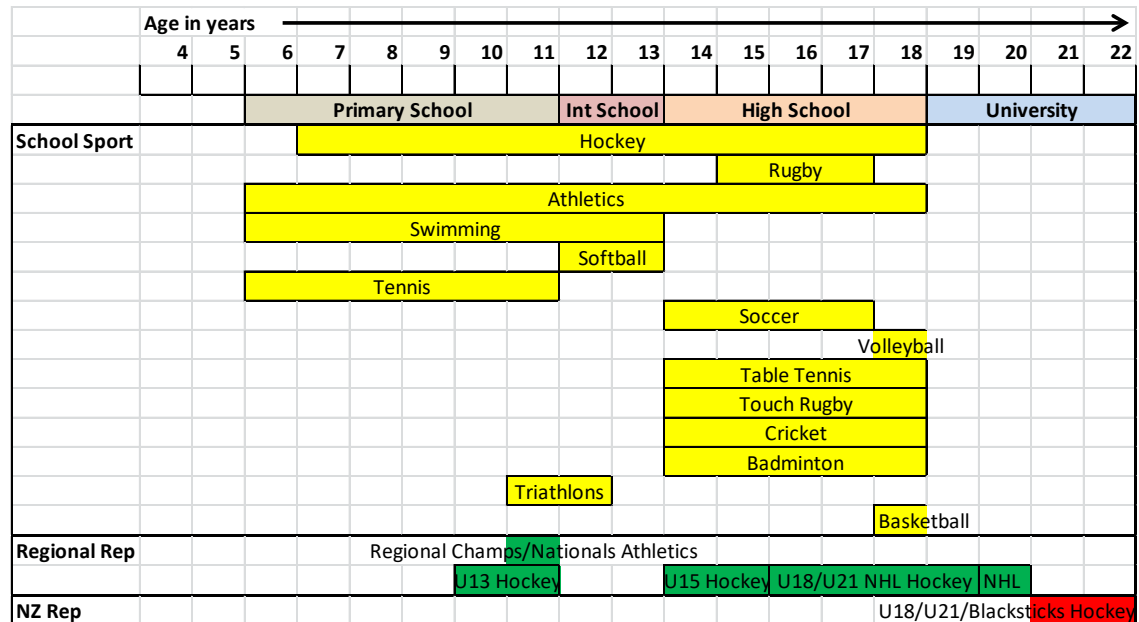
Participant 2 Sporting Timeline. Timeline template adapted from Hodge et al. (2012).

Participant 3 Sporting Timeline

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Age in years →																			
			Primary School						Int School		High School					University			
School Sport			Soccer																
		Hockey																	
							Hockey												
							Basketball												
								Volleyball											
								Touch											
								Rugby											
									Cricket									
Regional Rep								U11-U14 Soccer											
									U13/U15/U18/U19 Basketball									
								U11/U13/U15/U17/U21 Hockey						U18 Hockey				
									U15 Touch									
								U13 Volleball										
NZ Rep														U18 NZ Tiger Turf Team				Blacksticks	

Participant 3 Sporting Timeline. Timeline template adapted from Hodge et al. (2012).

Participant 4 Sporting Timeline

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Age in years →																						
			Primary School						Int School		High School				University						
School Sport		Hockey								Hockey												
			Athletics																			
Club Sport									Hockey							Hockey						
			Gymnastics																			
Regional Rep								Age Group Rep Hockey								Rep Hockey			NHL Hockey			
										Gymnastic Rep											
NZ Rep																						Blacksticks

Participant 4 Sporting Timeline. Timeline template adapted from Hodge et al. (2012).

Participant 5 Sporting Timeline

Age in years →	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
			Primary School						Int School		High School					University			
School Sport		Soccer																	
			Hockey																
								Badminton											
								Athletics											
			Rugby																
			Swimming																
							Touch												
			Cross Country																
Regional Rep						Hockey					U18/U21 Hockey								
							Touch												
								Sec School Athletics										
						Rugby													
NZ Rep										Touch Rugby U15/U17								
									U19/Development/Blacksticks									

Participant 5 Sporting Timeline. Timeline template adapted from Hodge et al. (2012).

Participant 6 Sporting Timeline

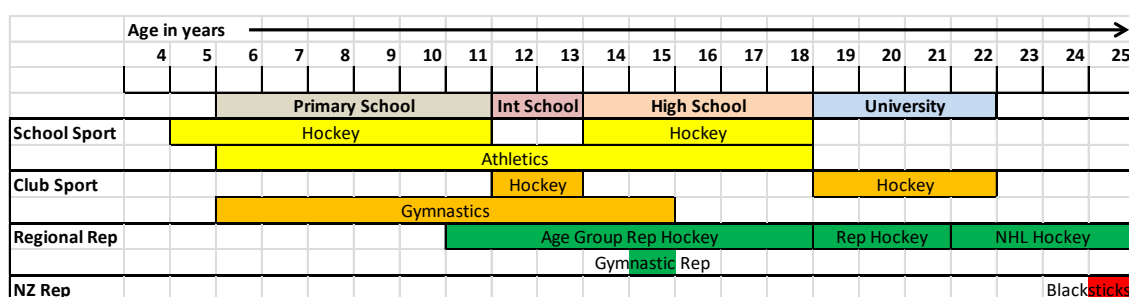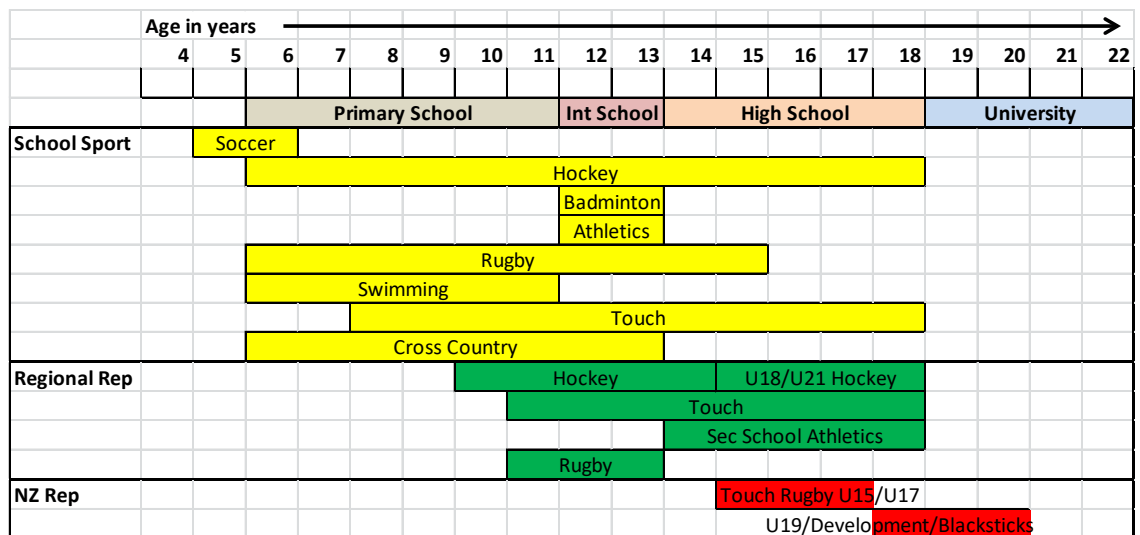| Age in years →	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
			Primary School						Int School		High School					University			
School Sport	Hockey					Hockey													
				Tennis															
									Cricket									
												Athletics						
				Rugby															
Club Sport			Tennis																
Regional Rep						U13 Hockey				15B/U15A/U18A Hockey									
					10/U12/U14/U16 Tenn														
NZ Rep								U12 Tennis											
											Juniour Blacksticks/NZ U21							
									NZ Squad Hockey/NZ U18							Blacksticks		

Participant 6 Sporting Timeline. Timeline template adapted from Hodge et al. (2012).

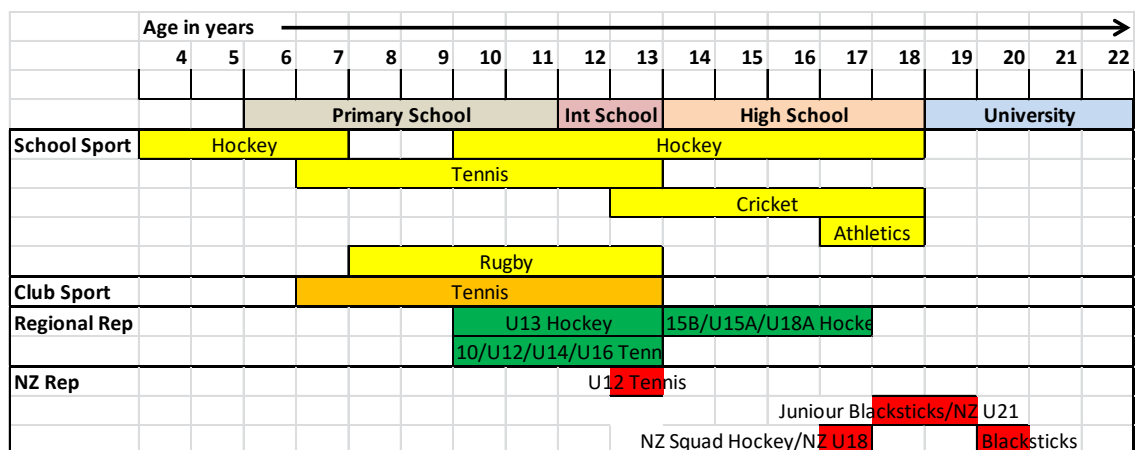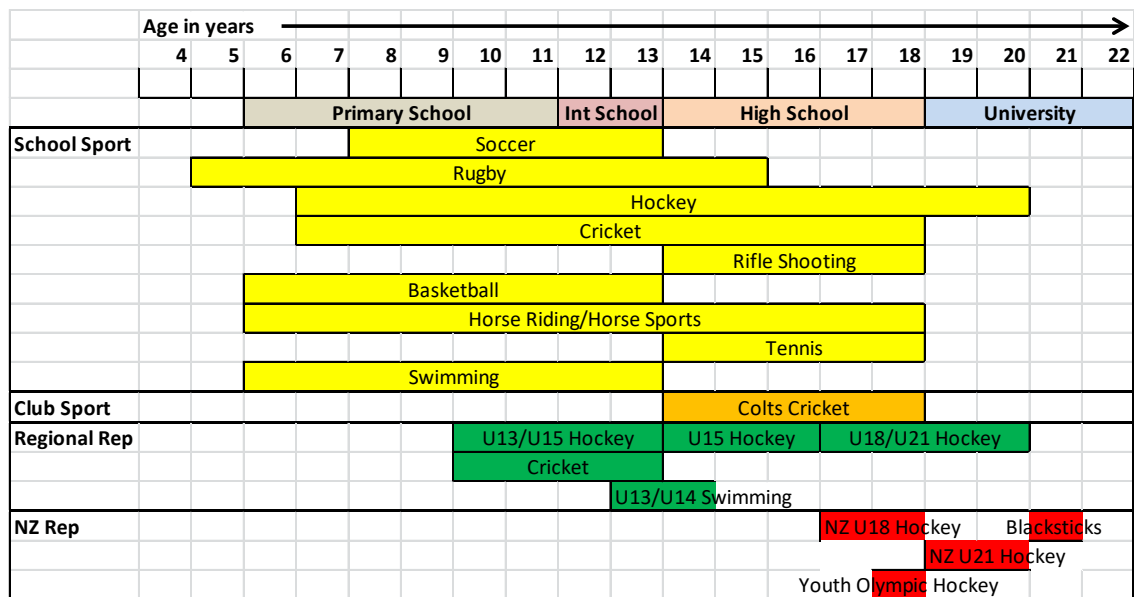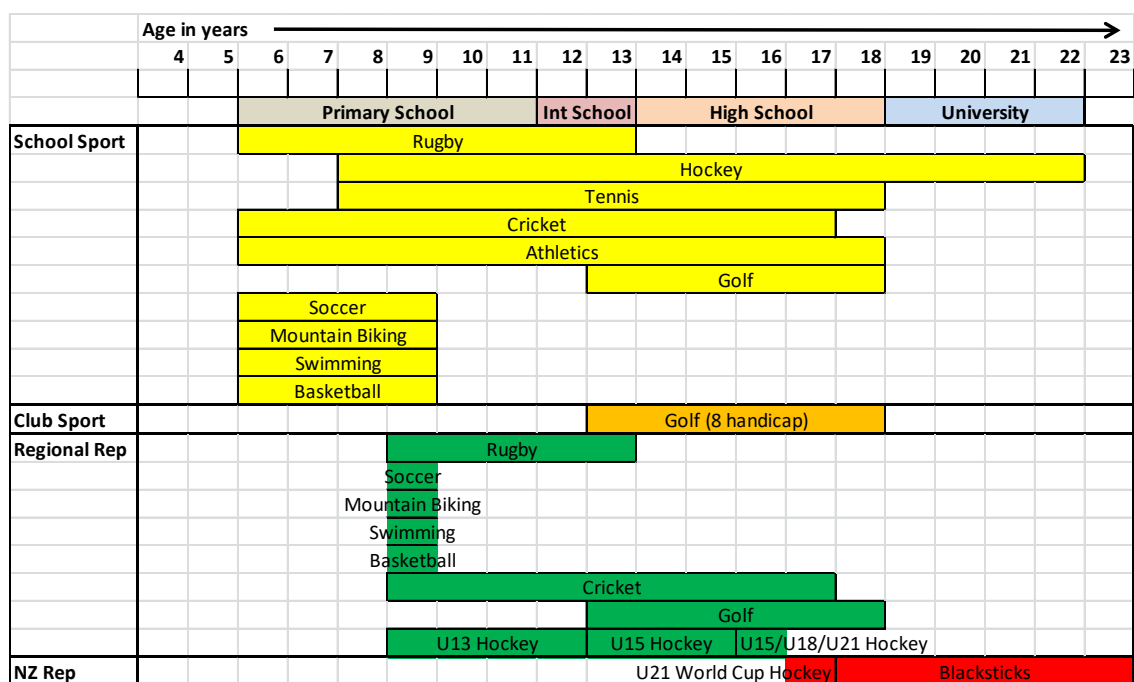Participant 7 Sporting Timeline. Timeline template adapted from Hodge et al. (2012).

Participant 8 Sporting Timeline. Timeline template adapted from Hodge et al. (2012).