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스포츠 매니지먼트 석사 학위논문

Programs for Elite Athletes' Career &
Education Support in Asia's Four Tigers
A case study of the sport career transition organizational
intervention practices in Singapore

아시아 4대 엘리트 선수 경력 및 지원 프로그램:

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Abstract

Programs for Elite Athletes' Career & Education Support in Asia's Four Tigers

**A case study of sport career transition organizational
intervention practices in Singapore**

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The study on athlete development and the various transitions they face in their sport career is an evolving field. Research has shown that successful coping with transitions both within and outside of sport has helped to extend the life span of an athlete's sport career. Consequentially, failure to cope with a transition is often followed by negative consequences (eg. Premature

dropout from sport, depression, alcohol/ drug abuse, etc). Therefore, helping athletes to prepare for and cope with various transitions in their lives should be the focus of sports policy makers, coaches, athletes' parents, high performance managers and sports psychologists.

In this paper, we examine the contextual factors in athlete transition research and organizational intervention practices in developed Asian nations (Hong Kong, Taiwan, South Korea and Singapore), which is currently lacking. The purpose of this study is to qualitatively examine the cultural and macro-sociological factors affecting athletes' sport career transitions in Asia's Four Tigers, as a best-practices study for the evolving sport system in Singapore to continue attracting talents and promote an athletic-centric support system.

Research in the realm of sport career organizational intervention programs in Asia's Tigers may also yield deeper insights into the influence of national sports systems, dual career opportunities and cultural aspects on athlete transitions.

Seven practitioners in Singapore mentoring elite athletes in sport-related organizations that provide intervention practices which support athletes' career and education are interviewed. Results reveal that intangible support like organizational invention programs is essential to the long-term wellbeing of the athletes, so that they can cope better with the various

transitions that they face. For small nations like Singapore with a limited talent pool, the opportunity costs for the pursuit of elite sports come at a high price, hence the dual-career pathway is advocated by the government and national sports bodies.

Keywords: Athlete Career Transition, Elite Sport Development, Holistic Athlete Development, Sport Career Transition Organizational Intervention programs

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Chapter 1. Introduction

The study on athlete career development and the various transitions they face in their sport career is an emerging field. Research has shown that retirement from elite sports is inevitable, leading to coping problems and identity issues (Sinclair & Orlick, 1993). Successful coping with transitions both within and outside of sport has helped to extend the life span of an athlete's sport career. Consequentially, failure to cope with transitions is often followed by negative consequences (for instance, premature dropout from sport, alcohol/ drug abuse, depression, etc) (Anderson, 1999; Anderson & Morris, 2000).

In addition, nearly 90% of youth athletes drop out from elite sports before reaching their sporting peak in their 20s, before they can fulfill their full potential (Bussmann & Alfermann, 1994; D. Alfermann, Stambulova, & Zemaityte, 2004; Gordon & Lavalley, 2012; Hassan et al., 2017).

Therefore, helping athletes to prepare for and cope with various transitions in their lives should be the focus of coaches, athletes' parents, high performance managers and sports psychologists (D. Alfermann & Stambulova, 2007; N. Stambulova, Alfermann, Statler, & Côté, 2009). Price

et al. (2010) validates the finding that engaging in non-sporting pursuits help athletes to develop balance in life and prolong their sport career.

1.1 Research Context

For the purpose of this research, the term ‘elite’ refers to those athletes who have recognized status by a sport organization, governing body or the State to represent their country in major regional and international competitions, or they have a professional contract with a sport employer or sport organization based on proven success and achievements (Sotiriadou & De Bosscher, 2018; Veerle, De Bosscher; Sotiriadou, 2013).

Athletes are the main resource of the National Olympic Committees (NOCs) and the countries they represent. The life-span of an elite athlete can be short or long, depending on the nature of their sport, their entry age in the chosen sport, and the intervention strategies at various transition stages such that the athletes can make a successful transition at each stage (for example, youth to senior squad) to finally cumulate in preparing for life after sports.

A review of the extant research that examined and documented adjustment difficulties associated with retirement from sport identified that 20% of the athletes required considerable psychological adjustment upon their career termination (Grove, Lavallee, Gordon, & Harvey, 1998; Sinclair & Orlick, 1993).

The rate of success to become podium winners are low, with one in thousands who succeed in their sport. For one figure skating queen Kim Yuna who succeeded, there are thousands of others who failed in their quest (Hooyeon, 2015). For one footballer with blazing success like Lionel Messi or Cristiano Ronaldo, there are uncountable others whose dream came to naught. In Ryba, Zhang, Huang, & Aunola (2017)'s research on Career Adaptability Scale, the study by Morris, Tod & Oliver (2015) estimated that less than 1% of players will complete the junior-to-senior professional football transition in the English Premier League.

Since the 'career' of elite athletes is relatively short which normally ends before the age of 30, athletes have to prepare for their life after sports to sustain themselves for the next 40 to 50 years. For those who didn't make it to the pinnacle of their sports, these athletes with less marketable value need to have a safety net so that they can transit into other stages of life, and survive in a business world which care less about an athlete's past sporting glories . (Borowiec, 2018; Hooyeon, 2015; N. Stambulova et al., 2009)

Hence, the onus is on sports organizations to encourage athletes to develop a balanced life and identity outside the realm of sports. At the policy and implementation level, sports organizations can establish a conducive

environment for elite athletes using athlete lifestyle programs (Anderson, 1999; Dagley, 2004; Price et al., 2010).

1.2 Research Significance

The current literature on athlete career transitions is scripted by Western scholars using case studies of athletes in Western cultures, where perspectives of academia and the pursuit of alternative vocations in sport is viable. Park, Lavallee, & Tod (2013) published in their systemic review that out of 126 studies on sport career transition from 1968 to 2010, 115 studies were based on Western nations. But limited research was done in Asia where one-third of the world's population resides.

In addition, their systematic review revealed that only eight studies had been conducted specifically on sport career organizational transition programs, as the focus has been on athletes and the sport transitions they go through. These limited studies reveal positive associations between the involvement of athletes in support programs and enhancing their life skills, and the quality of career transition. However, existing studies on support programs for elite athletes do not clearly identify who delivers support services to elite athletes (Hong & Coffee, 2018). Given the paucity of available resources on organizational intervention programs for athlete transitions, it remains a void to be filled (Hong & Coffee, 2018).

Therefore, the aim of this study is to shift the focus from athletes to the organizations that deliver the support services to the elite athletes. The researcher seeks to examine the contextual factors in sport career transition research, and undertake a comparative analysis of the organizational intervention practices in small developed countries in Asia, which is currently lacking.

Using Singapore as a case study, whereby this small nation with a native population of 3.4million Singapore citizens, of which 817,600 people are currently below the age of 20 (“Statistics Singapore - Population and Population Structure - Latest Data,” 2018), the sports talent pool is constrained by its small population, as only Singapore citizens are allowed to represent Singapore. Hence it is imperative that the limited resources channeled to grooming the nation’s sporting talents assist athletes in achieving a long and successful life in sport, and prepare them to transit into their life after sport so that their social capital can continue to contribute to society in other roles, be it sports-related or not.

To this end, the following research questions were set to address this gap in the literature:

RQ1. How do cultural and macro-sociological factors affect the junior-to-senior squad transitions?

- RQ2. What are the existing sports career transition organizational intervention programs in Asia's developed small nations?
- RQ3. What are the main transition issues faced by the athletes in Singapore, based on feedback from sports administrators, athlete life mentors / advisors and student life officers?
- RQ4. Why is the dual-career pathway advocated for Singapore's elite athletes?

1.3 Research Aims

The sport policy interests of small states are generally under-researched by the academic community, as the focus has traditionally been on the sporting powerhouses like the USA, UK, Germany and China, etc.

Small nations invest in elite sports not simply to develop an Olympic medal contender, but more pragmatically to give them access to significant global arenas such as sport Non-Government Organizations (NGOs) and mega-sports events. According to Houlihan & Jinming (2014); Mike & Houlihan (2005), small states deploy three key sources of soft power, which are a state's culture, its political values and its foreign policy to make itself attractive to other countries for investment and to attract tourism dollars.

With the belief that the tiny island state fondly known as “Little Red Dot” near the Equator can succeed in the pinnacle of sports by putting the right policies in place, the sports administrators in Singapore embarked on reviews of existing systems and researched the best practices of the top sporting nations, hoping to produce success stories not just in economic progress, but also in sporting prowess.

Due to the small talent base (Singapore’s native population is 3.4million) and with human resource as the only resource, the investment on sports talents has to be done strategically. Minister of Culture, Community and Youth, Ms Grace Fu mentioned in her speech at the award ceremony for the athletes receiving the Sports Excellence (Spex in short) scholarship that “Singapore has to be focused and judicious in applying the limited resources.” (“MCCY - Highlighting the High Performance Sports system,” 2018)

Hence, research in the realm of sport career organizational intervention programs in Singapore may also yield a broader perspective for the other “Asian Tigers” like South Korea, Hong Kong and Taiwan with similar socio-cultural context unique to a fast-paced Asian society with higher emphasis on the academic success.

The four “Asian tigers” share common characteristics that include a focus on exports, an educated populace and high savings rates (“Four Asian

Tigers,” n.d.). Historically, Hong Kong and Singapore were former British colonies while South Korea and Taiwan were colonized by Japan. All four nations underwent rapid industrialization from the 1960s, and became high-income economies by the 21st century. Due to the common Confucian heritage and values, the people of these nations share Asian values like diligence, thrift, and the willingness to put social progress ahead of oneself (H.-B. Chia et al., 2007).

Stambulova & Ryba (2013) asserted that ‘culture is not merely an influencing, but indeed a constituting factor that generates a mapping of athletes’ career within the socio-political field’. In the context of career research and assistance, the cultural discourse and some common assumptions embedded in social institutions, like the National Sports Federations (NSFs) and academic institutions, enable athletes to access certain programs.

Based on the ISSP Position Stand on Career Development and Transition of Athletes, Stambulova et al. (2009b) advocates that athletes’ career development should be viewed in their broader historical and socio-cultural context.

Given that cross-national comparisons are sparse, and more studies are needed to increase the understanding of how social-cultural context

affects athlete retirement (Côté & Strachan, 2008; N. Stambulova et al., 2009), the researcher would like to examine the practice of sport career organizational intervention practices for elite athletes in an Asian context. It would give deeper insights into the influence of national sports systems, dual career opportunities and cultural aspects on athlete transitions.

Chapter 2. Literature Review

Literature review is done based on the following areas of research:-

- (i) the significance of support programs for athletes' career and education as evidenced in the Sports Policy factors Leading to International Sporting Success (SPLISS) model
- (ii) Review the extant research on athlete career transitions
- (iii) IOC and IPC Athlete Career Programs
- (iv) Athlete career and education programs in Asia - Implementation

2.1 Successful Elite Sport Policies

Over the past five decades, since the premise of the cold-war competition among the top superpowers, governments have recognized the importance of elite sporting success. Elite sporting success tend to be regarded as a resource valuable for its malleability, and its capacity to help achieve a wide range of non-sporting objectives. In recent times, international sporting success has been attributed to bring about intangible benefits like diplomacy among nations, improving the host nation's image, 'feel good' factors like reinforcing the national identity and building national pride, and tangible benefits from economic prosperity by hosting major international events (Mike & Houlihan, 2005).

Both politicians and the media regard medals, especially at the world stage of the summer and winter Olympics, as a measure of international success. As a result, governments have become more willing to intervene directly in elite sport development by making considerable financial investments, thus leading to the increasing institutionalization of elite sport systems (De Bosscher, De Knop, Van Bottenburg, & Shibli, 2006; Green & Houlihan 2005)

In the book “Global Sporting Arms Race – An International Comparative Study on Sports Policy factors Leading to International Sporting Success”, Stamm and Leprecht (2001) noted that between 1964 and 1980, macro-level indicators like economic prosperity (eg. GDP), a large population base and depth of sporting tradition and development accounted for approximately 50% of a nation’s sporting success (De Bosscher, Bingham, Shibli, Van Bottenburg, & De Knop, 2008a).

The keynote idea from this ‘global sporting arms race’ as described by Green & Oakley (2001) is that elite sporting success can be produced by investing strategically in elite sport. The governments, as principal investors in sports, are keen to learn the secrets of success from top sporting nations such as the USA, UK and Germany. This has, in turn, led researchers to try to

identify ‘models’ that work and the common success factors. (De Bosscher, Bingham, Shibli, Van Bottenburg, & De Knop, 2008b)

By studying the network of systems and professionals surrounding the elite athlete, it provides insights into the policy literature. Other than the macro-level indicators which are uncontrollable, nations can focus on factors that are controllable, where the components of an elite sports development system interact together to produce sports excellence (De Bosscher et al., 2008a).

Australia is a good example of a nation that stayed in top 10 of the Summer Olympics medal tally table via strategic investments despite a modestly-sized population of 24.77 million, comprising 32% of world population (“Australia Population (2018) - Worldometers,” n.d.) and ranking of 29 in the world based on the GDP per capita (“World GDP – per capita (PPP) – Economy,” n.d.).

Robinson & Minikin (2012) published their research on competitive advantage of National Olympic Committees (NOCs), which uses a resource-based view of developing competitive advantage to investigate why many NOCs do not appear to be successful at the Olympic Games. The underlying premise of the research is that the competitive advantage of a NOC is reliant

on the ability of their National Federations (NFs) to produce athletes who can produce results on the world stage.

Despite Kenya's economic and social-demographic difficulties, the athletes have won 95 medals in track and field alone, putting it in top 6 ranking for athletics after the top industrialized nations of United States, Soviet Union, Great Britain, Finland and East Germany. Kenya is an example of a country that has harnessed competitive advantage in athletics, and has been successful without great wealth (Robinson & Minikin, 2012).

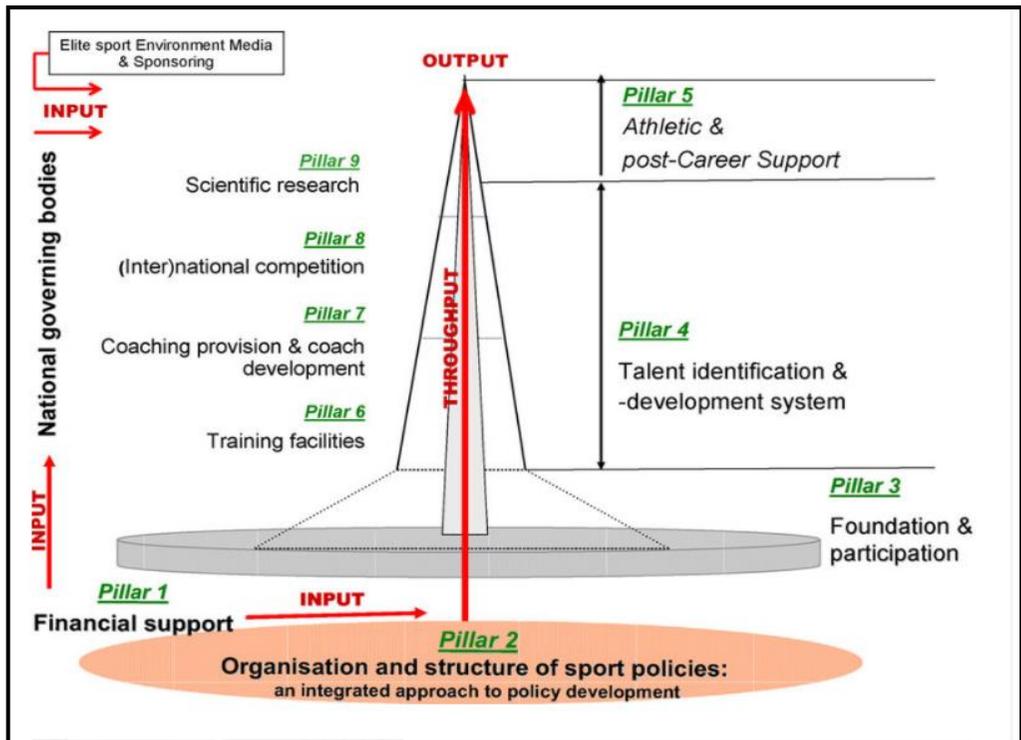
Based on the research, one of the conclusions reached after applying the Readiness Assessment Tool on three small Pacific countries is that organizations need to develop further through knowledge transfer, leveraging of resources and capacity-building through alliances with other organizations or countries that are better placed to produce elite athletes (Robinson & Minikin, 2012).

Hence, the question of why some nations succeed and others fail in international competitions has been raised. This issue is obviously a key concern of policymakers who wish to improve their position in the Olympic medal table, and for nations to justify their investment in elite sports.

This provided the springboard for the first Sports Policy factors Leading to International Sporting Success (SPLISS) project in 2009, where

six nations took part in a pilot study to gain a better insight on the effectiveness and efficiency of elite sports policies of nations at an overall sport level (De Bosscher, De Knop, van Bottenburg, Shibli, & Bingham, 2009). The study has sought to operationalize nine pillars, or key drivers in elite sport systems, into measurable concepts, which can be aggregated into an overall score for each pillar (see Figure 1). In addition to a national sport policy questionnaire, athletes, coaches and performance directors were also involved in the collection of qualitative and quantitative data.

Although the results are inconclusive, the findings suggest that some critical success factors (CSFs), or pillars could be regarded as possible drivers of an effective system because they were prioritized in the most successful sample nations: financial resources (pillar 1), athletic and post-career support (pillar 5), training facilities (pillar 6) and coach development (partly pillar 7). (see Figure 1) (De Bosscher et al., 2008a)



Source: The Global Sporting Arms Race-An International Comparative Study on Sports Policy factors Leading to International Sporting Success (De Bosscher et al., 2008b)

Figure 1. SPLISS model of 9 pillars

The success of SPLISS 1.0 project led to SPLISS 2.0 in 2015, where the numbers of nations increased to 15, with Australia, Canada, Brazil, Belgium, Denmark, Estonia, Finland, France, The Netherlands, Northern Ireland (UK), Portugal, Spain, Switzerland, Japan and South Korea on board. The project aims to examine how nations develop and implement policies that

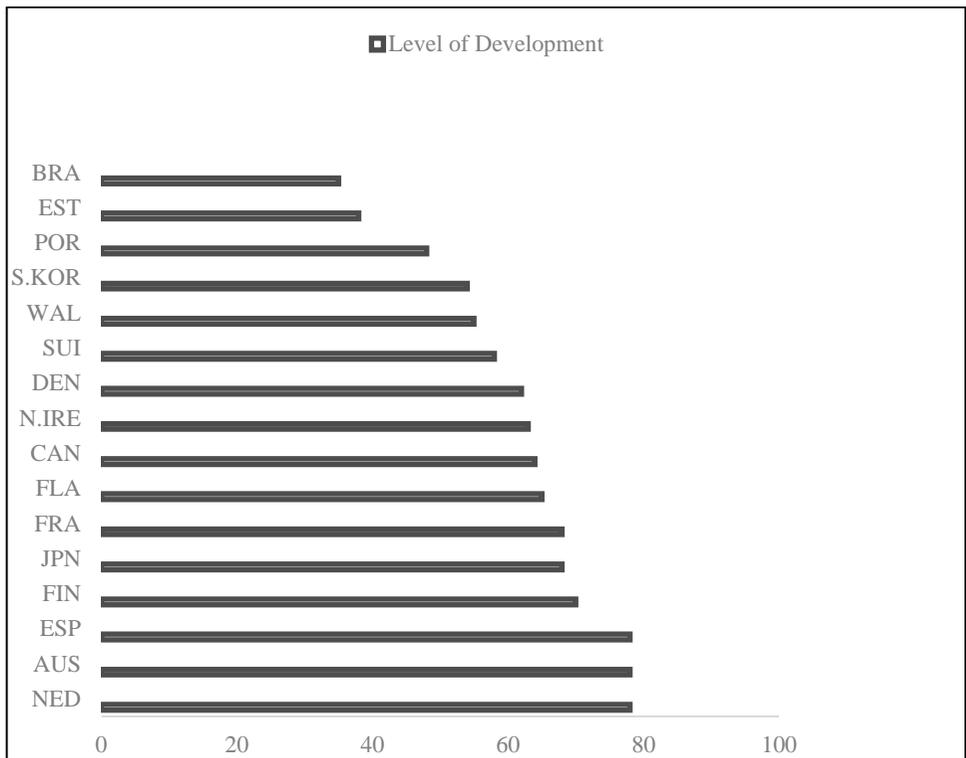
are based on the CSFs leading to competitive advantage in world sports. 53 researchers and 33 policy partners collaborated on this extensive research, which also involved over 3,000 elite athletes, 1,300 coaches and more than 240 performance directors globally. (De Bosscher, Westerbeek, van Bottenburg, & Shibli, 2015)

2.1.1 Key Findings from SPLISS: Athletic Career and post-career

support

The researcher is keen to examine how other established sporting nations utilize pillar 5: Athlete Career Support, one of the CSFs in the SPLISS model as depicted in Figure 1 above. Specifically, the researcher takes interest in the report's key findings for South Korea (developed capitalist countries in Asia with population within 58 million – 10 times of Singapore's population), as well as Australia which established the Athletes' Career & Education (ACE) program since the 1990s (Dagley, 2004).

Among the SPLISS nations, nine countries have set up national regulations for the combination of elite sport and study, of which Australia (1981), France (1974) and Finland (1986) are the prime movers. In 2013, the European Union compiled a set of guidelines to encourage a number of policy actions in support of dual careers in sports. (EUR-Lex - 52013XG0614(03) - EN - EUR-Lex, 2013)



Source: Successful Elite Sport Policies - An international comparison of the Sports Policy factors Leading International Sporting Success (SPLISS 2.0) in 15 nations

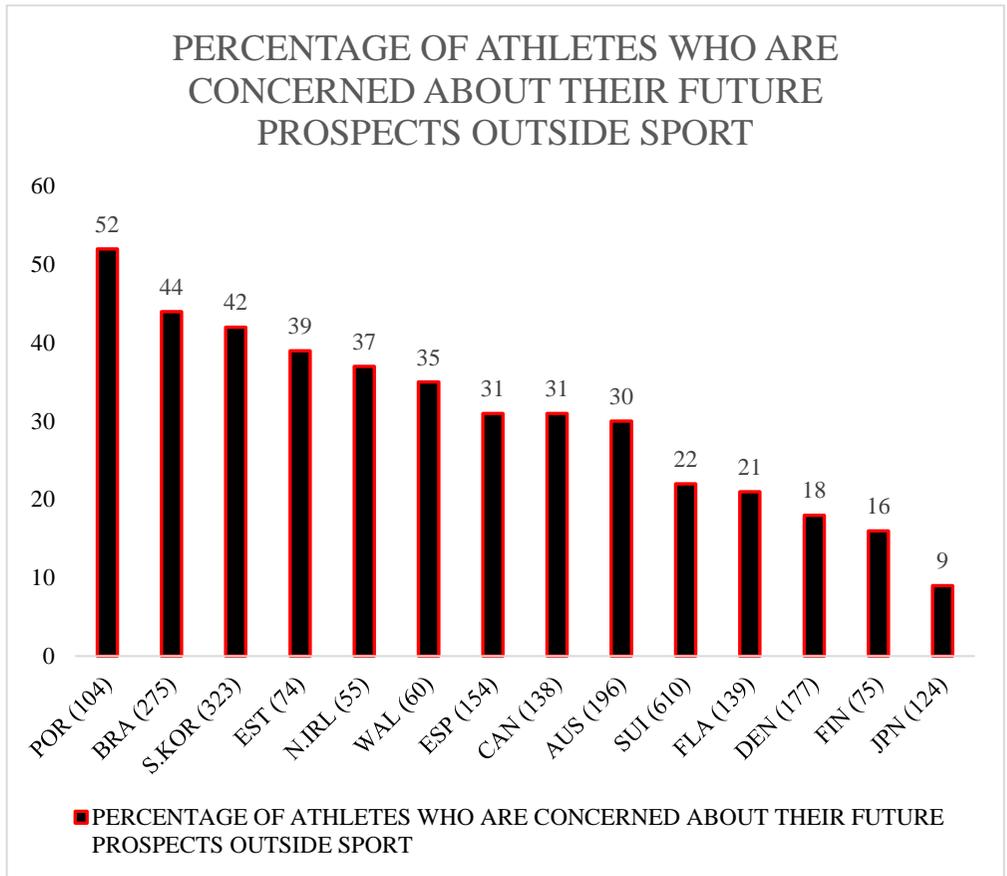
Figure 2. Scores of the SPLISS nations on lifestyle support services, based on survey of top 16 athletes in the countries

Based on the key findings on pillar 5, the average scores are the highest of all the nine pillars, with the least variation between countries. It

reflects the trend that there is a growing awareness among nations for the need for a holistic approach to athletic career development. Brazil, Estonia, Portugal, South Korea and Wallonia have the lowest scores among the 15 nations (see Figure 2 above).

However, for South Korea, the post-career support for retired athletes includes the provision of a pension for Olympic medallists, prize money for coaches of the medallists, a pension fund of USD500 per month for athletes who are forced to retire from sports after injuries and a welfare fund for athletes (De Bosscher et al., 2015; Hooyeon, 2015; 최재섭, 2014).

As for Australia which started organizational intervention programs for elite athletes since the 1980s, the Athlete Career and Education (ACE) programs include career and education guidance, employment preparation, career referral networks, transition management and lifestyle support by athlete life advisors (Commission, n.d.; Dagley, 2004).



Source: Successful Elite Sport Policies - An international comparison of the Sports Policy factors Leading International Sporting Success (SPLISS 2.0) in 15 nations

Figure 3. Percentage of Elite Athletes who fully agree with the statement: "Concerns about my future prospects outside sport negatively affect my ability to focus fully on being an elite athlete."

The results from Project SPLISS 2.0 as depicted in Figure 3, show that a significant number of elite athletes are insecure about their future, and it has a negative effect on their ability to focus on their sport career. Unlike a regular professional career where graduates enter the workforce in their early twenties, most athletes retire from their sport career at a time when their peers are already in their first or second job, climbing the corporate ladder.

Athletes may face daunting prospects as they feel that they are losing out to their peers in terms of academic achievements or work exposure, thus clouding their views of their own future. Based on Figure 3, athletes in Portugal, Brazil, South Korea and Estonia are more concerned about their future than athletes in other nations (De Bosscher et al., 2015).

In a nutshell, nations that view the elite sport career as a holistic development of talented athletes invested significant amount of resources in terms of manpower and organizational intervention transition programs. By instilling measures at various transition points to prevent athletes from dropping out of the system, it aims to mitigate the perceived risks of a sporting career and allows the athletes to maximize their potential (De Bosscher et al., 2015; Ryba, Ronkainen, & Selänne, 2015).

However, when comparing all the nine CSFs, De Bosscher et al., (2015); Veerle, De Bosscher & Sotiriadou (2013) did not find a significant

correlation between athletic career and post-career support and sporting success of the 15 nations that took part in the SPLISS projects. The researchers attributed it to the participating nations adopting a similar strategy that allows the athletes to train and compete as full-time athletes. Future research with more diverse countries taking part and increasing the sample size would address this limitation in this evolving research area.

2.2 Development of Athlete Career Transition Research

In recent years, with a burgeoning sports industry and the commercialization of sport, the topic of athlete career transitions manifests itself into a well-established domain of sport psychology. The research focus has evolved from the perspective of performance enhancement to the current developmental and holistic perspective on transitions faced by talented elite athletes (D. Alfermann & Stambulova, 2007; D Alfermann & Stambulova, 2017; N. Stambulova, 2010; P. Wylleman, Alfermann, & Lavallee, 2004).

Schlossberg (1981) defined transitions as “an event or non-event which results in a change in assumptions about oneself and the world and thus requires a corresponding change in one's behavior and relationships”.

Alfermann & Stambulova (2007) define ‘sport career’ as a multiyear sport activity in which a person engages for achieving peak athletic performance. Hence athlete career transition is defined as ‘turning phases in

career development that manifest themselves by sets of demands that athletes have to meet in order to continue successfully in sport and/ or other spheres of life.' Transitions can be normative (predictable), such as from junior to senior squads or from school to college/university, and non-normative (less predictable), such as injury, moving to a different club, or divorce (Dorothee Alfermann & Stambulova, 2012; Sinclair & Orlick, 1993).

In fact, over 270 references have recently been generated on the topic of career transitions in sport, based on research by (P. Wylleman et al., 2004) compared to 20 references being identified by McPherson in 1980 (Hong & Coffee, 2018). Substantial research on career transitions in elite sports has gradually increased over the years. Park, Lavalley, & Tod (2013) completed a systematic review of the studies on athletes' career transition out of sport, from 1968 till the end of 2010. Out of the 126 studies, they found that 10 were published before 1990, 48 in the 1990s and 68 from 2000 to 2010.

However, only 8 out of the 126 studies focused on the organizations that assisted the athletes with career transitions. Hence, more research is required in this area to gain further insights, especially for Asia as the literature review was mainly based on Western culture and athletes from developed Western countries.

Stambulova (2010) traced the development of athlete transitions in Europe through three major periods as summarized in Table 1:

- (i) early research and theorizing (1960s to the mid-1990s)
- (ii) establishment of major intellectual traditions and values
(mid 1990s to late 2000s)
- (iii) structuring and contextualization of the knowledge
(late 2000s to the present)

Stambulova et al. (2009b) suggested that the current research focus is in the fourth shift, which seeks to understand the role of socio-cultural contextual factors in career development and transitions. Due to the globalization and hyper-commodification of sports, sports talents are now part of the sport labor migration.

A new type of intervention, termed as ‘Cultural Adaptation Intervention’ is aimed at helping athletes to adjust to the new socio-cultural environment during and after relocation (Agergaard & Ryba, 2014; Ryba, Ronkainen, Bundgaard, Selänne, & Selänne, 2015; N. B. Stambulova & Ryba, 2013). According to Ryba (2009), she defined the cultural praxis approach where ‘adaptation is a dynamic process of negotiation between maintaining a psychological homeostasis and engagement in socio-cultural everyday practices of the host site.’ Hence the career pathways and decisions

undertaken by the athletes is influenced by the various sociocultural contexts (N. B. Stambulova & Ryba, 2013).

Table 1. Summary of approaches towards athlete career transitions

Year of origin	Author	Findings/ Model / Milestone
1960s to mid-1990s		Early research and theorizing
1969	Kubler-Ross	Stages and emotional implications of retirement
1972	Sussman	Analytic Model of Retirement based on gerontology and the study of retirement from a sociology perspective, based on personal, social and environment factors.
1974	Hill & Lowe	Applied Sussman's model to retiring elite athletes, who face much difficulties when their sport career end before/ when they are in the prime of their lives
1980	McPherson	Identification with the role of an elite athlete and the influence of athlete identity. Process and problems of occupational and psychological adjustment in athletic retirement
1981/4	Schlossberg	Model of Human Adaptation to Transitions, which emphasized athletes' perceptions, attributes and environmental characteristics; Counselling adults and linking practice with theory
1983	Coakley	The transition process is not a singular event, but affected by many other factors such as gender, race, age, socioeconomic status, and

		the existence of support systems. However, it gives opportunity for social rebirth
Year of origin	Author	Findings/ Model / Milestone
1985	Bloom	Stages of talent development from Initiation, Development to Perfection, taking a longer-term approach
Mid-1990s to 2000		Establishment of major intellectual traditions and values
1992/3	Baillie & Danish	Self-awareness + Early preparation for retirement will help to ease athletes' transition into their other roles in society.
1993/4	Sinclair & Orlick	Intervention strategies for positive transitions, using Schlossberg's model to understand athletes' transitions. Modified model of the Individual in Transition
1993/5	Schlossberg	Transition Coping Questionnaire. The '4S' factors that make a difference to transitions - self, situation, support and strategies
1994/8	Taylor & Ogilvie	Conceptual model of adaptation to retirement (1998) among athletes, with research on the adjustment process. Derived a domain-specific model in 1998 which examines the entire course of career transition
1995	Gordon	Gordon critiqued the thanatological model that viewed career termination as a terminal illness. Termination of athletes' career is part of the transitions to other domains of life
1995/7 2000	Alfermann	Causes and consequences of sport career termination

1999	Cote	From deliberate play and practice, athletes go through the stages of sampling, specializing, investment and mastery. Research on the influence of key stakeholders on youth and talent development
Year of origin	Author	Findings/ Model / Milestone
1996/7 2001	Petitpas	Athletes' guide to career planning; Identifying and using transferable skills. Pursuit of elite sports performance at the expense of personal excellence
1994 2000/3	Stambulova	Developed Athlete Career Transition stage model (2003) that considered the athletic career in stages and transitions
1999 2000	Wylleman & Lavallee	British Athletes Lifestyle Assessment Needs in Career and Education (BALANCE) Scale
2000 2002	Wylleman	Transitions in youth sport. Change of focus from retiring athletes to in-sport transitions
2000	Sinclair & Hackfort	The role of sport organization in the career transition process
1993 2008	Ericsson	The age to achieve peak performance in sports is between 20 to 30 years. At least 10 years of deliberate practice is required to achieve peak performance.
2000 to 2010		Structuring and contextualization of the knowledge
2000	Lavallee, Wylleman	Career Transition in Sport: International Perspectives
2000 2001 2005	Lavallee; Andersen; Gorely	Sport transition programs; Career Development programs and intervention strategies. Provision of career support services

2004	Wylleman & Lavallee	Holistic Athletic Career (HAC) model (2004) Holistic approach, taking a life-span perspective from start to end, considering other domains of athletes' lives.
2001/ 5 2006	Taylor, Ogilvie & Lavallee	Voluntary end to athletic career eases the transition process. Updated the 1998 model to Conceptual model of adaptation to Career Transitions
2002	Miller & Kerr	Development of life-skills programs for tertiary student-athletes
2004	Balyi	<i>Long-term Athlete Development (LTAD)</i> , using sport specific models for different sports
2005	Taylor, Ogilvie & Lavallee	Career transitions will cause less distress if interventions are applied early during career transition
2005	Lavallee	Studied the effectiveness of intervention programs on transitions of retired professional athletes
2005	IOC & IPC	Launched the Athlete Career Program, supported by The Adecco Group
2009	Stambulova, Cote, Alfermann, Statler	ISSP Position stand: Career development and transitions of athletes
2010 to present		Role of socio-cultural contextual factors in career development and transitions
2010	Aquilina & Henry	Policy review on practices in Europe for elite athletes and university education

2010	Henrikson, Stambulova	Athlete Talent Development Environment (ATDE model)
Year of origin	Author	Findings/ Model / Milestone
2011	Wylleman; De Knop & Reints	Interventions shift from use of traditional therapeutic approaches to cope with the possible traumatic experience from career termination, to career transitions and athlete lifeskills programs aimed at providing support and education to athletes undergoing transitions in different domains of their lives.
2012	Gordon & Lavallee	Career Transitions in ‘The New Sport & Exercise Psychology Comparison’
2013	Ryba & Stambulova	Athletes Careers across Cultures
2013	Sotiriadou & De bosscher	Managing High Performance Sport (Chapter 8, 9, 12)
2013	Henry	Policy review on Athlete Development, Athlete Rights and Athlete Welfare
2013	European Commission	Pursuit of dual career and legislation by European Union
2014	Taylor & Lavallee	Career Transitions among Athletes: Is there life after sports in ‘Applied Psychology: Personal growth to Peak Performance’
2015	Lupo, Guidotti, Concalves, Moreira, Doupona, Bellardini, Tonkonoyi, Colin, Capranica	Motivation towards dual career of European athletes (Lupo et al., 2015a)
2015	Baron-Thiene, Alfermann	Personal characteristics as predictors for dual career dropout versus continuation

2016	Raab, Seiler, Wylleman, Elbe, Hatzigeorgiadis	Sport & Exercise Psychology research (Chapter 12 & 13)
Year of origin	Author	Findings/ Model / Milestone
2016	Wylleman & Rosier	Using the Holistic Athletic Career (HAC) model, the influence of three transitional challenges athletes may face at different points in their career is then described.
2016	Haslerig & Navarro	Aligning Athletes' career choices and graduate degree pathways
2016	Maier, Woratschek & Strobel	Relative effects of non-monetary incentives of organizational support, based on studies of professional athletes and coaches in Germany
2017	Ryba, Zhang, Huang	Career Adapt-Abilities Scale – Dual Career Form (CAAS-DC)
2017	IOC	Athlete Career Transition Program by Olympic Solidarity

Applying Sussman's (1972) Analytic Model of Retirement, Hill & Lowe (1974) studied the retiring athlete and concluded that the age of the athletes, their life-style, and their unusual development left them vulnerable to a stressful retirement process. The retiring athlete has to adjust to a lifestyle in which he can no longer rely upon sport to provide the satisfaction he derived from sport competitions due to loss of income, self-identity, change

of routine and environment, etc. However, retirees in their 60s do not experience such compounding difficulties (Hill & Lowe, 1974).

Sussman's (1972) model presents a range of factors whose interplay will affect an individual's retirement. The variables include individual factors such as lifestyle needs, goals, problem-solving skills, and personal values; situational and structural variables such as the circumstances of retirement, preretirement preparation and retirement income; and boundary constraints such as societal definitions and professional organizational postures.

Sussman contended that these variables will influence the perception of the situation and the choice of options, usage of previous experiences, and anticipatory behavior. The perception would then result in the utilization (or non-utilization) of linking systems, including voluntary organizations, circle of friends, and work systems. The model can be applied to the career transition of an athlete but serves only to describe the factors, without making any predictions for ease of transition or developmental outcomes. Sussman's (1972) model can be used as an analytic model for the study of retirement from a sociological perspective.

During the early years of research, retirement from sports is seen as an event that occurs in isolation that inevitably leads to distress. Schlossberg (1981) derived the Model of Human Adaptation to Transition and concluded

that individuals differ in their ability to adapt to changes in their lives, and the same person would react differently to different types of change or same type of change at different points in life. Schlossberg added to her research in 1995 by defining the '4S' factors that make a difference to transitions -self, situation, support and strategies, as referenced in the Athlete's Career & Education program used by Australian Institute of Sports (Dagley, 2004).

Identification with the role of athlete can have a variety of effects. For many individuals, sport participation has a positive influence. However, some athletes become overly invested in their status and uniqueness as members of an elite, privileged class. For these athletes, a significant proportion of their identity becomes closely linked to this label, and the end of a career in sports may precipitate a range of negative outcomes.

Hence it is important to consider the suggestion of McPherson (1980) that early identification with the role of athlete is reinforced so that the label becomes part of the individual. Giving up that label when physical abilities decline is synonymous with the loss of an important attribute of the self. Inevitably, the resulting issues and difficulties in role transition should not be considered unusual.

Coakley (1983) rejected the prevailing focus on career termination as a singular event which signals serious adjustment problems and loss of self-

identity. Instead, he articulated that the transition process is affected by many other factors such as gender, race, age, socioeconomic status, and the existence of support systems. Coakley (1983) suggested that the athletic career termination could serve as an opportunity for social rebirth, leading researchers to see the termination as a transitional process rather than singular event. Being an unknown field, sports psychologists started to look beyond the realm of sports at transition models.

In his seminal work on talent development, Bloom was among the first to describe the sport career as a succession of three critical stages, namely the ‘early years’ characterized by a process-oriented as well as playful practice and support from parents; the ‘middle years’ with a more performance achievement orientation and demand of an increasing commitment to sport and the ‘late years’ when athletes become experts and dedicate most of their lives to sport. These three stages were later coined as the initiation stage, the development stage, and the mastery or perfection (Bloom, 1985, as cited in Hedstrom & Gould, 2005; P. Wylleman et al., 2004).

The various aspects of transition in sports start with early identification as a youth athlete and continue through retirement from active participation in competitive sports. Anderson (1999)’s research evidenced Baillie & Danish (1992)’s theory that athletes themselves need to be aware of

the challenges during their career transition. Early preparation for retirement will help to ease their transition into their other roles in society, as retirement from sports can be voluntary or involuntary due to injury/ de-selection from the squad, etc. (Debois, Ledon, & Wylleman, 2015; Paul Wylleman, De Knop, & Reints, 2011)

Through longitudinal studies on swimmers and track and field athletes in Europe, Anders Ericsson (1993) found that the age to achieve peak performance in sports is between 20 to 30 years. Peak performance/ mastery is referred to as ‘best performance that individuals are able to achieve, when they are striving for this performance over an unlimited period of time.’

In terms of life transitions, athletes in the age group of 20-30 are in the prime of their lives, and most likely to be in tertiary education or entering the workforce. However, this is also the stage that most athletes drop out from the pursuit of elite sports, as the demands from their academic pursuits to prepare for occupational pathways or working career for subsistence increase along with the demands of elite sports (Rosier & Wylleman, 2016; P. Wylleman et al., 2004).

Elite athletes inevitably retire; but it is difficult to predict when, and under what kind of circumstances that they retire. Regardless of the precipitating factors, retirement from sport is a major transition that may turn

out to be a crisis or relief, depending on the coping strategies and support mechanisms (Sinclair & Orlick, 1993). Hence adjustment and intervention strategies will help to ease the transition (Coakley, 1983). Transferable skills gleaned from competitive sports can be transferred to the workforce, and athletes can leverage on their strengths and network/ star presence to craft a second career even after their sports career is over (Knights, Sherry, & Ruddock-Hudson, 2016; David Lavalley, Park, & Taylor, 2014).

With more research on elite athletes' transitions, Taylor & Ogilvie's (1994) Conceptual Model of Adaptation to Retirement among Athletes is a multi-dimensional model useful for understanding the sport-career transitions of athletes. It lists the psychosocial (emotional, social, financial and occupational) factors that interact in response to the sport-career transition that account for the disposition of the athlete in transition. The five stage developmental stages are:

- a) cause of career retirement
- b) developmental experiences in adapting to retirement
- c) coping resources
- d) quality of adaptation to retirement
- e) interventions for retirement difficulties if transition distress is experienced (see Figure 4)

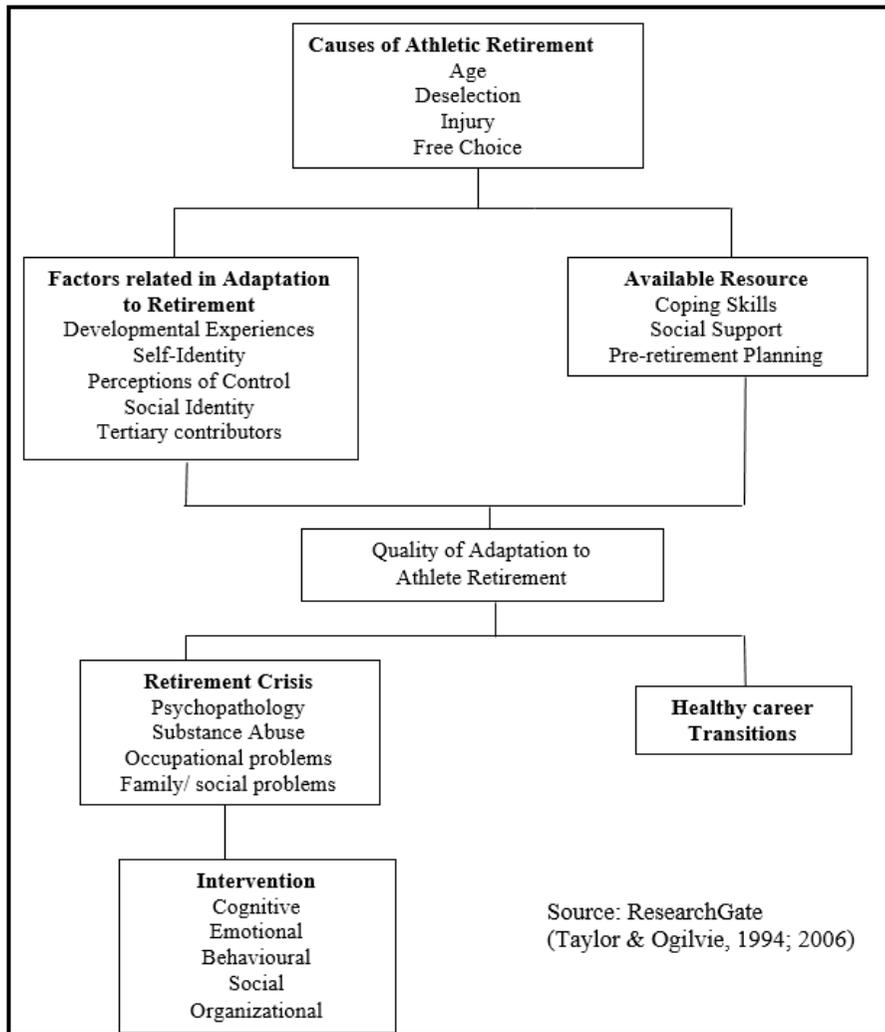


Figure 4. Conceptual Model of Adaptation to Career Transition

The Conceptual Model of Adaptation to Retirement integrates the various theories and empirical studies with actual fieldwork with the athletes, whereby the researcher finds this model to be the most relevant theoretical

explanation of the sport-career transition of elite athletes. In addition, this model proposes five interventions to assist elite athletes to overcome retirement crisis, based on social, cognitive, emotional, behavioral, and organizational interventions (Taylor & Ogilvie, 1994).

Taylor, Ogilvie, and Lavallee updated the model in 2006 as a conceptual model of adaptation to career transition (see Fig.4). The updated model considered athletes' career transitions as a process rather than a singular event, and "retirement" was reworded as a "transition". It also showed both the positive (ideal scenario of healthy career transition) and negative consequences of transitions.

Since this paper focuses on organizational interventions, the researcher decides to use this framework as the basis for the study in order to advance theory and knowledge in this area. It may assist sport career transition practitioners and sport organizations in Asia to better support athletes in transition (N. B. Stambulova, 2016; Taylor & Ogilvie, 1994).

During the late 1990s, researchers shifted their attention from one particular transition (eg. Career termination) to a more life-span perspective of athlete involvement. This coincided with the focus on sports science disciplines like talent development, deliberate practice and career development (Bahr, 2014; Breitbach, Tug, & Simon, 2014). Hence Côté

(1999) proposes the stages of sampling, specializing, investment and mastery. His research focused on the influence of key stakeholders on youth and talent development (Côté, 1999).

Team USA usually have the largest number of athletes participating in most editions of the Olympics. The US Olympic Committee, USOC (2001) surveyed US Olympic athletes from 1988 to 1996, and concluded that it took between 10 and 13 years of practice or training just to make the Olympic team and between 13 and 15 years for those athletes who won a medal (Athletics Canada, 2015).

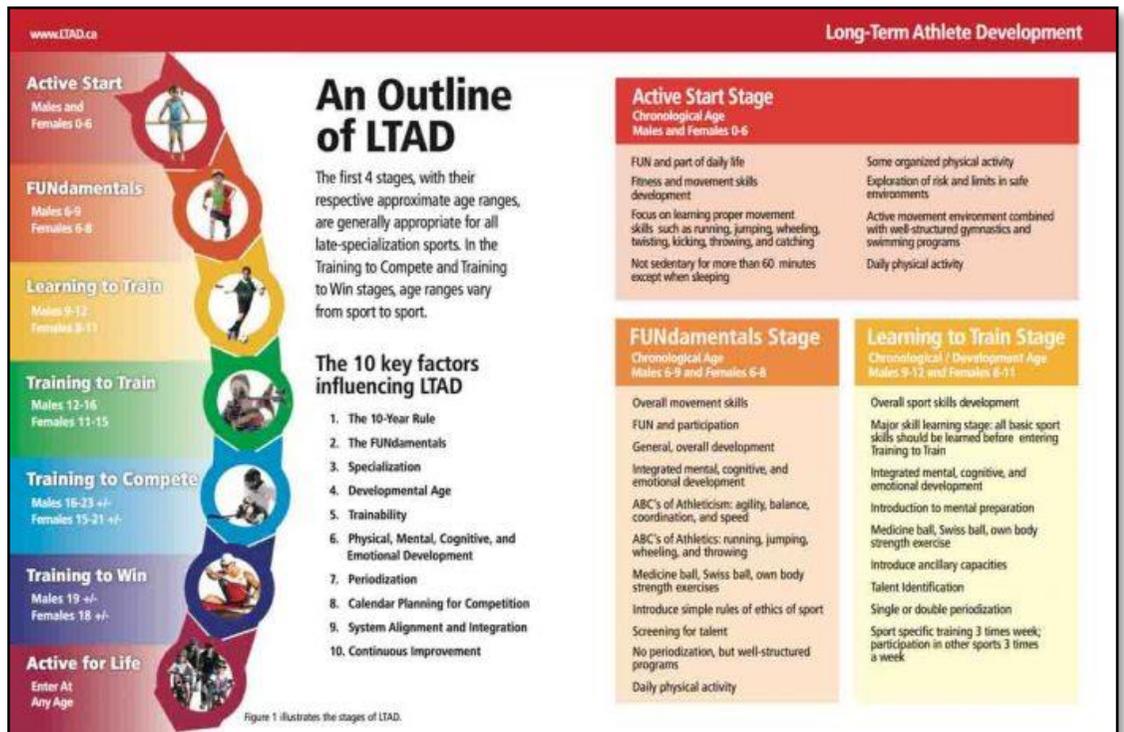
Anders Ericsson (2008)'s research reinforced USOC's evidence that the efforts needed to pursue sports excellence has been found to take more than 10,000 hours or 10 years of deliberate practice to develop. While early specialization in sports can lead to better motor skills acquisition and scholarship opportunities, the pitfalls of early sport specialization are injuries from a young age, burnout, growth retardation, social isolation and lack of social development opportunities (Mostafavifar, Best, & Myer, 2013).

After evaluating the inherent problems in sports systems and reviewing the existing knowledge on healthy child development, experts developed an optimal and systematic approach to sport development and physical activity. This policy - Long Term Athlete Development (LTAD)

framework developed by Balyi, Way, & Higgs (2004), as reflected in Figure 5, was initially developed as an elitist talent development model, and currently adopted as an athlete retention model.

The LTAD is about reviewing the whole sport system to cater for different stages of physiological development, catering for different amount of training, different types of competitions and different rules for different stages of athlete development. It considers the myriad systems that affect athletes, (eg sports organizations, schools, recreation or club systems) and how these systems can work together to enhance the sport experience holistically rather than make conflicting demands on an athlete. (Balyi et al., 2004)

It is underpinned by seven stages of human development, as depicted in Figure 5. LTAD has been adopted by a few national governing bodies like UK Sport, Australian Institute of Sports (AIS) and Sport Canada, and it has evolved into more than 100 sport-specific LTAD models in more than a dozen countries like Australia, New Zealand, Canada, UK and Croatia (Ford et al., 2011; Lachance, 2014). The focus has shifted from developing “champions by chance” to one that would give the athletes their best chance to reach their full potential, focusing on holistic development for lifelong learning (Balyi et al., 2004).



Source : **Sport for Life**

Figure 5. The Long-Term Athlete Development (LTAD) model

Based on Stambulova (2003)'s research on career transitions among Russian athletes, she developed an Athletic Career Transition model that considered the athletic career in stages and transitions. It stipulated that athletes can cope better with the various transitions if they have a good fit between coping resources and the transitions, which are listed as:

- (a) the beginning of the sports specialization

- (b) the transition to intensive training in the chosen sport
 - (c) the transition to high-achievement and adult sports
 - (d) the transition from amateur to professional sports
 - (e) the transition from culmination to the end of the sports career
 - (f) the end of the sports career
- (D. Alfermann & Stambulova, 2007; N. Stambulova et al., 2009).

Evolving research led Wylleman et al. (2004) to deploy a ‘beginning-to-end’ approach, where the developmental model is based on normative transitions faced by athletes at athletic, individual, psychosocial, and academic/vocational level, and the features of these transitions which elucidate how transitions proceed. However, this model did not include non-normative transitions that do not occur in a set plan or schedule, for instance season-ending injury, change of coach, etc or transitions which were hoped for but did not happen (eg. qualifying for the Olympics).

The focus on interventions has shifted from the use of traditional therapeutic approaches to cope with the possible traumatic experience from the termination of the athletic career, to career transitions and athlete life-skills programs which helped to provide support and education to athletes undergoing transitions in different domains of their lives (P Wylleman, Alfermann, & Lavallee, 2004; Paul Wylleman et al., 2011).

Wylleman et al. (2004) started research on in-sport transitions, happening predominantly among youth athletes. He consolidated the research from other psychologists who re-defined the participatory status of young athletes, such as the “transfer dropout” (Lindner, Johns, & Butcher, 1991), “sport-specific dropout” (Gould & Petlichkoff, 1988), or “sport transfer” (Klint & Weiss, 1986; Gould, Feltz, Horn, & Weiss, 1982), which reflected different types of dropouts which could also be viewed in terms of transitions, and more particularly as “in-career” transitions.

Rosier & Wylleman (2016) expounded on the Holistic Athletic Career (HAC) model, first derived by Wylleman & Lavellee (2004) stating the influence of three transitional challenges (denoted by the oval shaded areas) which is determined by age, the organizational characteristics of competitive sport and athletic proficiency that athletes may face at different points in their career, as described in Figure 6.

The Holistic Athlete Career (HAC) Model will form part of the framework upon which this thesis is based on, to understand the sport transitions of elite athletes at different levels, and how the current intervention programs can support the athletes in transition at each stage. Both the Conceptual model of adaptation to career transitions and HAC Model are

commonly used by researchers to explain the different aspects of the athletic career.

Age	10	15	20	25	30	35
Athletic Level	Initiation	Development	Mastery	Discontinuation		
Psychological Level	Childhood	Adolescence	Adulthood			
Psychosocial Level	Parents Siblings Peers	Peers Coach Parents	Partner Coach	Family (Coach)		
Academic Vocational Level	Primary education	Secondary education	Higher education	Vocational training Professional occupation		

Source: ResearchGate (The dotted lines are the ages at which transitions occur, which is an approximation)

Figure 6. Holistic Athlete Career Model (Wylleman & Lavallee, 2004)

Based on the four layers, the first layer resonates with the development stages proposed by other researchers (Bloom, 1985; Côté, 1999; N. Stambulova, 1994, 2000). The second layer includes the psychological development of childhood (up to 12 years of age), adolescence (13 to 18 years

of age) and adulthood (19 years onwards). The third layer reflects an athlete's most influential social relationship at each stage, as relationships with significant others are an integral part of life. Finally, the fourth layer reflects the transitions in academic and vocational development, as it traces the years that an athlete spends in education. Conflicts may arise for the student-athletes as they have to develop both their academic and athletic performance simultaneously (Ryba, Stambulova, Selänne, Aunola, & Nurmi, 2017).

In most developed countries, compulsory education is until the age of 16 or 17 (Paul Wylleman et al., 2011). Athletes may be forced to choose either sport or education/ vocation, depending on the financial situation or other psycho-social implications (Ronkainen & Ryba, 2018; Ryba, Ronkainen, Bundgaard, et al., 2015; Ryba, Ronkainen, & Selänne, 2015). Even the mass media's attention on different sports disciplines can shape how the society and the athletes perceive sports transitions (D Alfermann & Stambulova, 2017).

This discourse underpins the narrative that athletes are treated as individuals doing sport while functioning in other domains of life (D Alfermann & Stambulova, 2017; Rosier & Wylleman, 2016; N. B. Stambulova, 2016). With this shift in perspective, the concept of retirement

from sport becomes a continuum rather than a cessation of an individual's life development.

Given that nearly 90% of the youth athletes drop out from elite sports before reaching adulthood (Bussmann & Alfermann, 1994; D. Alfermann, Stambulova, & Zemaityte, 2004; Gordon & Lavalley, 2012; Hassan et al., 2017), it is even more pressing for young athletes to get an education so that they are prepared for the next 40 to 50 years of their lives.

Henriksen, Stambulova, & Roessler (2010)'s research took a holistic ecological approach (HEA) into athlete career pathways and found that the environment plays an essential role in shaping the choices that athletes make in their career. The main idea of the HEA is to shift the attention from the individual athlete's development to the environment in which he or she is developing. The environment is important for athletes' development at any stage of their career but it is especially influential when athletes are still young and immature. As the African proverb goes – 'It takes a village to raise a child.' So it also takes the whole sports eco-system to nurture sports talents into champions.

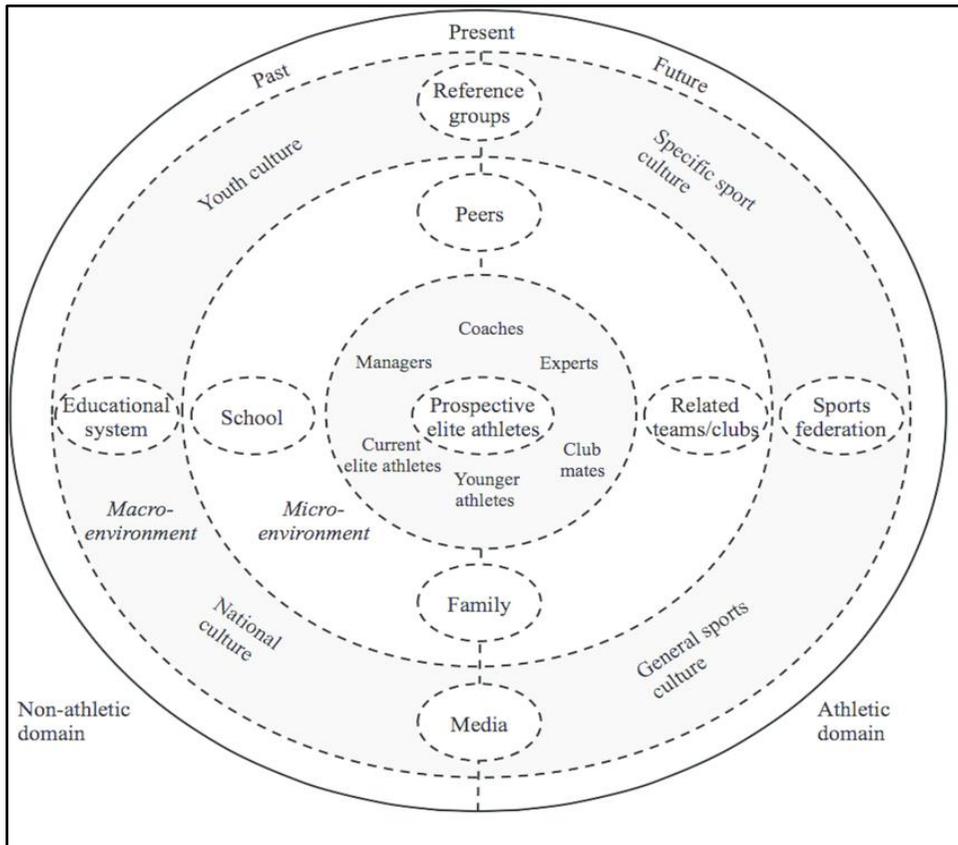
When they make the junior-to-senior transitions, it happens at the same time when the athletic demands increase along with other non-athletic demands like studies (transition to higher education), psychosocial

development (e.g., high importance of socializing, having friends and love), psychological development (e.g., identity formation; role experimentation, striving for independence) and financial development (role of parents, sport organizations, and sponsors).

This is the phase whereby many youth athletes come to the crossroads where they decide whether it is worthwhile to continue their pursuit of sports, and the key juncture where the dropout from elite sports happens. The research found that athletes' competencies and external support are key factors for successful coping (D. Alfermann & Stambulova, 2007; Price et al., 2010; Ryba, Ronkainen, & Selänne, 2015; N. B. Stambulova & Ryba, 2013).

Hence the ATDE model functions like a dynamic system comprising:

- (i) an athlete's immediate surroundings at the micro level where athletic and personal development takes place
- (ii) the interrelations between these surroundings
- (iii) at the macro-level, the larger context in which these surroundings are embedded
- (iv) the organizational culture of the sports club or team, which is an integrative factor of the ADTE's effectiveness in helping young talented athletes to develop into senior elite athletes

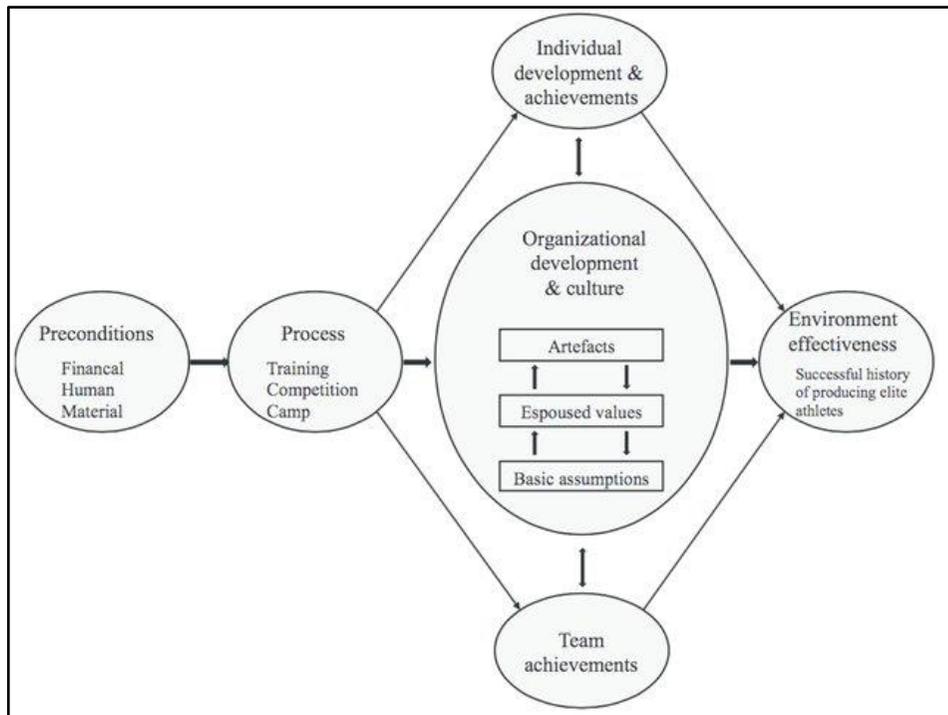


Source: Research Gate (Henriksen et al., 2010)

Figure 7. Athletic Talent Development Environment Model (ATDE)

On the other hand, the Environmental Success Factors (ESF) model predicts that the ATDE's success is a result of the interplay between preconditions, process, individual and team development and achievements, with organizational culture serving to integrate these elements. This holistic ecological approach focuses on the whole environment, and suggests that

some environments are superior to others in their capacity to guide talented junior athletes in their transition to elite senior athletes. (See Figure 7 & 8)



Source: Research Gate (Henriksen et al., 2010)

Figure 8. The Environmental Success Factors (ESFs)

In the 21st century, the IOC and European Union (EU) advocate that athletes have a right to education, equity and good practices (Aquilina & Henry, 2010; Bergeron et al., 2015; Henry, 2013). Based on the discourse above on the evolving nature of sport career transitions and the skills required to survive in the 21st century (Savickas, 2012), the onus is on sport

organizations to establish a holistic environment for elite athletes via athlete lifestyle programs or organizational intervention programs, such that the athletes can set goals outside of their sporting achievements (Bergeron et al., 2015; Henry, 2013; Lupo et al., 2015b).

2.3 Sport Career Transition Organizational Intervention

For this study, ‘Sports Career Transition Organizational Intervention Programs’ are defined as planned programs offered by a sporting organization, which are specifically designed to support athletes with their preparations for life after sport (David Lavallee et al., 2014).

On the other hand, practitioners are people who deliver these planned programs, and they include sports administrators, career advisors, education and career counselors, dual career coordinators, athlete life advisors, student life officers, etc. (Hong & Coffee, 2018)

In Mcardle, Moore, & Lyons (2014)’s study on the Olympians’ post-Games experience in a career transition program, the findings elucidate the positive correlations of having organizational intervention transition support, which facilitate anticipatory and proactive coping for athletes. The findings from this study underscore the importance of continuing to develop a more comprehensive understanding of athlete career transition needs and how their needs can best be met.

In Maier, Woratschek, Ströbel, & Popp (2016)'s research on organizational support in elite sport, they found three main factors:- integration of family, second career support, and private problem support which are crucial to athlete support programs. Based on their study on 315 professional athletes and 34 coaches from 19 clubs in Germany, they validated Anderson & Morris (2000)'s finding that it is crucial for organizations to create a supportive environment.

This research reinforces the finding that organizational support plays an important role in both sport-related and non-sport-related context, which is significant for elite athletes to balance between sport and non-sport careers (Anderson, 1999; Gordon & Lavalley, 2012; Price et al., 2010).

Maier et al. (2016)'s research gave insights into the support for second career support, or dual career, which indicates a significant effect on performance. In relation to this, Price et al. (2010) claim that sporting organizations and coaches should support the development of athletes as a whole person and encourage engagement in non-sporting pursuits to enhance sporting performance, career longevity and mental wellbeing.

Based on research by Gordon & Lavalley (2012), these support programs are provided by five major sources, including NOCs, national sport governing bodies (e.g. UK Sport), player unions within specific sport

federations (e.g. National Basketball Players Association), academic institutes (e.g. the National Collegiate Athletics Association (NCAA) developed the student-athletes' development support program, which is called "CHAMPS/Life skills") and independent organizations linked to sport settings (e.g. Women's Sport Foundation).

Since the 1980s, Australia has been the forerunner in the realm of support programs for Athletes' Career and Education (ACE), as sporting organizations such as the Australian Institute of Sport (AIS), state institutes of sport and educational institutions play a crucial role in the retention/transition process as these organizations provide support of skill development, physical preparation, and improved performances (Dagley, 2004). This is validated by Sotiriadou, Shilbury, and Quick's (2008) study of examining sport development processes in Australia, as featured in the book 'Managing High Performance Sport' by Veerle, De Bosscher; Sotiriadou (2013).

Lavallee (2005) reviewed sport career transition organizational intervention programs in seven countries, including Australia (Athlete Career and Education Program, Olympic Job Opportunities Program), Belgium (Study and Talent Education Program), Canada (Olympic Athlete Career Centre, Athlete Assistance Program), the Netherlands (The Retiring Athlete,), South Africa (Olympic Job Opportunities Program), the UK (Lifestyle

Management Program and Olympic Job Opportunities Program), and the US (Career Assistance Program for Athletes, Making the Jump Program (Advisory Resource Centre for Athletes), Women's Sports Foundation Athlete Service, Career Transition Program, and CHAMPS/Life Skills).

In Hong & Coffee (2018)'s research on the psycho-educational curriculum for sport career transition practitioners, they found that sport career transitional organizational intervention programs were developed in 19 countries, of which South Korea and Japan are the only two Asian countries that took part in the study.

Australia, Belgium and Canada, and the Netherlands also participated in the SPLISS study 2.0. The SPLISS report found that there is a big discrepancy between the organizational programs offered by the 15 nations. Other than Japan and South Korea, all the other nations that were featured are Western nations, as shown by Figure 3 and Figure 4.

Although the number of studies on athlete lifestyle programs (Anderson & Morris, 2000) and career development program (Lavalley, 2005) is small, there are even fewer on sport career transition program globally, and none on features of sport career transition organizational interventions in Asia (Hong & Coffee, 2018; Lavalley et al., 2014).

Stambulova & Ryba (2013)'s study of Athletes' career across cultures defined culture as 'an external entity contained within national boundaries, affecting athletes' motives and experiences of career transitions.'

Stambulova et al. (2009) suggested that a culturally specific approach in applied work with retiring/ retired athletes can help them to adjust to specific cultural and social environment. Stambulova and her colleagues also argued that other than athletes, the sport practitioners and researchers are infused by their culture too.

The ISSP Position Stand on Career Development and Transitions of Athletes proposes that there are four major scientific traditions, namely North American, West European, Australian and East European. Table 1 also shows the research driven by the practitioners in these regions. The first three are similar in socio-cultural context, which is characterized by democratic society structures and individualist cultures. Three distinct lines in career development and transition research are shared by these three traditions:

- (i) athletic retirement and athletic identity;
- (ii) stages in talent/career development with an emphasized role on parents and coaches;
- (iii) transitions of student-athletes/ dual career development due to a developed university sports system

The individualist culture values the athlete identity and identity change after career termination. In Western cultures which favors forward planning, the athletes usually decide upon their sport career termination and carry out full responsibility for their education and vocation. If the sport career termination is voluntary, then the transition process is smoother. Proactive planning, social resources, and accumulation of life-skills help the athletes to cope with the transition process.

With high value on human rights and children's rights in sports (Côté, Jean, Strachan Leisha, 2008; Engebretsen et al., 2010), the line of research in North American, West European and Australian advocate

- (a) Early diversification and later specialization
- (b) Holistic perspective in viewing athlete's development

On the other hand, the East European which is mostly represented by Russian studies, put the interests of the state/ group ahead of the individual. In contrast to the Western nations, the Russian sport system is centralized and institutionalized, with sport boarding schools for youth athletes promoting early specialization, and state support for elite athletes, plus available jobs in sports for retired athletes (D. Alfermann et al., 2004; N. Stambulova et al., 2009)

The extant literature shows that different researchers from around the world bring their various perspectives internalized from different socio-cultural context. Therefore Stambulova & Ryba (2013) recommends that more studies on sport transitions focusing on cultural and cross-cultural aspects are required.

With the Asian sport culture as part of the missing puzzle, the researcher decided to undertake this study to examine the sport career transitions, from the organizational intervention aspect in Asia's Four Tigers – Hong Kong, South Korea, Taiwan, and Singapore.

2.3.1 IOC and IPC Athlete Career Program

As the world governing body for Olympic sports, the IOC has developed the Athlete Career Program (ACP) to support and prepare the elite athletes as they prepare for and go through career transitions. The IOC and International Paralympic Committee (IPC) has partnered with Adecco, a global human resource multi-national company, to assist athletes with preparation for entry into the workforce and job placements. 32 National Olympic Committees (NOCs) have their programs through contracts with Adecco (“IOC Athlete Career Programme,” n.d.).

Launched in 2005 as a social responsibility of the Olympic Movement, the IOC ACP supports elite athletes to successfully manage training and

competition as well as their everyday life (“Supporting athletes in their professional Career,” n.d.). The IOC ACP is based on three pillars of education, employment and life skills. To-date, more than 40,000 athletes from over 185 countries have participated in the program (“The IOC and IPC Athlete Career Programme - in cooperation with the The Adecco Group,” n.d.).

Leveraging on the winning attributes of the elite athletes, the athletes learn how to transfer their unique skills and assets that they acquired during their sports career to the labor force (“The IOC and IPC Athlete Career Programme - in cooperation with the The Adecco Group,” n.d.). The 10,000 Olympians that Adecco has helped find work for illustrates just how sought-after athletes are (“IOC Athlete Career Programme scores a victory with outreach sessions - Olympic News,” 2013).

The Athlete Career Transition program was established and launched in 2017, offered by Olympic Solidarity in collaboration with the IOC Athletes’ Commission and the IOC Sports Department. With a budget of USD750,000, the first grants were allocated to 19 individual Olympians after stringent assessments. The grants support a wide range of programs, including tertiary qualifications (Bachelors, Masters and Ph.D.), apprenticeships and language courses, covering periods from three months to four years. A total of 25 IOC

ACP outreach sessions, funded by Olympic Solidarity, were delivered in 2017 by members of the IOC Athletes' Commission, Olympians and Adecco employment experts (IOC Olympic Solidarity, 2017).

Taking the lead from the world body of sport, the European Union (EU) passed a legislation in 2013 for Guidelines on Dual Careers of Athletes, which were prepared by the Member States and the Commission Expert Group on Education and Training in Sport. The ad-hoc group of experts on dual careers proposed a number of policy actions in support of dual careers ("Dual Careers - European Commission," n.d.; EUR-Lex - 52013XG0614(03) - EN - EUR-Lex, 2013; Henry, 2013).

Since 2016, the EU's Erasmus + Sport Program funded the project 'Gold in Education and Elite Sport (GEES), which involves nine countries in Europe. It is a consortium consisting of internationally renowned dual career researchers and practitioners who contribute through the NOCs, universities, and sports institutes. The project aims to boost athletes' employability through the optimization of their competencies and development of services supporting the athletes (Paul Wylleman, De Brandt, Taelman, & Kegelaers, 2016)

The preparation for life after sport should start as early as possible, and athletes should not wait until they have reached the tail-end of their sports

career before they plan for their future. The concept of dual careers refers to combining a sporting career with work or studies, which is a source of concern for elite athletes as they face competing demands for their time and energy (D Alfermann & Stambulova, 2017; Dorothee Alfermann & Stambulova, 2012).

Recent research shows that academic support and career counseling can enhance the confidence of college athletes in making career decisions, and assist them with the transitions within and out of sports (Haslerig & Navarro, 2016; Lupo et al., 2015a; Tshube & Feltz, 2015). Athletes can make use of dual career (study/ work and elite sport) to prepare for their post-sports career (Borggreffe & Cachay, 2012; Ryan, 2015).

2.3.2 Sport Career Organizational Intervention Programs in Asia

The ISSP Position Stand: Career Development and Transition of Athletes, derived by Stambulova, Alfermann, Statler & Côté (2009) noted that sport systems and organizational strategies could be related to cultural diversity and organizational culture. Hence, cultural diversity may influence athletes' career transition process.

Compared to Westerners and the associated individualist culture, Asians tended to be influenced more by social norms and significant others in their lives via the collectivist culture, and would try to make compromises

during the decision-making process (Briley, Morris, & Simonson, 2000; Mau, 2000). Concurrently, organizational culture is closely related to values, visions, norms, and beliefs of people from organizations (Hill & Jones, 2006). For this reason, organizational culture would shape the policies towards supporting athletes' career transitions at the organizational level.

Table 2 below shows a summary of the scant literature review on organizational intervention in Asia, and the transition challenges faced by elite athletes in Taiwan, Hong Kong, South Korea and Singapore. It shows that to-date, just one study on sport career transition programs has been published while the other studies focused on the athletes and the challenges/transitions that they face.

Table 2. Summary of literature review on organizational intervention in Asia/ transition challenges faced by elite athletes

Country	Author/ Year	Research / Findings
Taiwan	Chen, 1997	On the way of challenging the extremes: life, study and job issues of athletes in ROC (thesis)
Taiwan	Zhang, 1999	The study of career planning of elite athletes in Taiwan
Taiwan	Peng, Johanson, 2006	Career Maturity and State Anxiety of Taiwanese College Student Athletes Given Cognitive Career-Oriented Group Counseling
Taiwan	Huang, Chou, & Hung, 2016	College experiences and career barriers among semi-professional student-athletes
Taiwan	Lu, Hsu, Chan, Cheen, & Kao, 2016	Assessing College Student-Athletes' Life Stress: Initial Measurement Development and validation
Taiwan	Chan, 2018	The relationship among social support, career self-efficacy, career exploration, and career choices of Taiwanese college athletes
Taiwan	Chan, 2018	Factors Affecting Career Goals of Taiwanese College Athletes from Perspective of Social Cognitive Career Theory
Hong Kong	Chow, 2001	Moving on? Elite Hong Kong female Athletes and Retirement from Competitive Sport

Country	Author/ Year	Research / Findings
Hong Kong	Sum & Ma, 2014	A plea for support for elite student athletes in Hong Kong secondary schools
Hong Kong	Sum & Ha, 2014	A Pilot Study of Career Development of Elite Student Athletes in Hong Kong and Taiwan - Design of the CAESARS Project: Customized Career Assistance and Support Systems
Taiwan Hong Kong	Sum, Tsai, Sau, Cheng, Wang, Li, 2017	Social-Ecological Determinants of Elite Student Athletes' Dual Career Development in Hong Kong and Taiwan
Hong Kong	Hassan, Lam, Ku, Li, Lee, Ho, Flint, Wong, 2017	The reasons of dropout of sports in Hong Kong school athletes
Hong Kong	Li & Sum, 2017	A meta-synthesis of elite athletes' experiences in dual career development
South Korea	Park, Lavalley, & Tod, 1999	A Longitudinal Qualitative Exploration of Elite Korean Tennis Players' Career Transition Experiences
South Korea	Lee, 2008	Career support plan for national retirement athletes
South Korea	Kim, Choi, & Lee, 2013	A Study on the Mentoring of Elite University Sports Teams – using Grounded Theory
South Korea	최재섭, 2014	Exploring the retirement experience and career transition of former national athletes

Country	Author/ Year	Research / Findings
South Korea	Hong & Coffee, 2018	A psycho-educational curriculum for sport career transition practitioners: development and evaluation
Singapore	Chew & Wang, 2010	Perceptions of parental autonomy support and control, and aspirations of student-athletes in Singapore
Singapore	Faisal Suptu, 2012	Athletic Career Transition: A Qualitative Inquiry Into Ex-athletes' Experiences Of The Sports System In Singapore (Masters dissertation)
Singapore	Brooke, 2014	Bidding for a lion's share: Singapore's Olympic medal aspirations through the Foreign Sporting Talent Scheme
Singapore	Suppiah, Low, Chia, 2015	Detecting and Developing Youth Athlete Potential – Different strokes for different folks are warranted
Singapore	Zulhilmi, 2018	How do the challenges in dual career experiences differ between male and female athletes (Bachelor dissertation)

For Taiwan, the earlier articles in Chinese by (S. Chen, 1997; Zhang, 1999) focused on the high dropout rates by the youth athletes before they reach their sporting peak, and the issues that these athletes face in seeking further education and a career after their retirement from sports. Zhang (1999) mentioned that the Taiwanese' traditional values, with its emphasis on

education and academic performance, made many youths chose studies over sports in their tertiary years. Subsequent published research by (C.-C. Chan, 2018b, 2018a; Huang et al., 2016; Lu et al., 2016; Peng & Johanson, 2006) reflected the stress and anxiety faced by Taiwanese college student-athletes, and the problems faced in transiting to post-sports career.

Research in Hong Kong showed a similar trend, mainly on transition problems faced by student athletes (Chow, 2001; Hassan et al., 2017; Sum & Ha, 2014; Sum & Ma, 2014). Sum et al. (2017) collaborated to derive the Social-Ecological Determinants of Elite Student Athletes' Dual Career Development in both Hong Kong and Taiwan to gain deeper insights on the issues.

For South Korea, only five articles in English can be found in recent years which are related to career transitions of elite athletes (Kim et al., 2013; Park et al., 1999; Lee, 2008; 최재섭, 2014), of which just one journal by Hong & Coffee (2018) espoused the work done by sport career transition practitioners.

As for Singapore, even though there are published journals on physical education and sports science over the years (Suppiah, Low, & Chia, 2015), there are no published journals on research related to athlete career transitions to-date. However, there are two dissertations on issues faced by

athletes (Faisal Suptu, 2012; Zulhilmi, 2018). On the other hand, Chew & Wang (2010)'s research aimed to gain deeper insight on parents' autonomy support on the aspirations of student athletes in Singapore, and Brooke (2014)'s research on the Foreign Sports Talent scheme is a discourse on Singapore's Olympic aspirations.

To summarize the literature review, out of the 23 articles on athlete career transitions featuring studies on Hong Kong, South Korea, Singapore and Taiwan, only one article is on sport career transition organization intervention practices in 19 countries, where South Korea is one of the 19 countries featured.

2.4 Comparison of the macro and meso-indicators in Asia's Four Tigers

To compare the macro indicators of the four countries, the researcher examined the population base (bigger population base means bigger potential pool of talent) and GDP per capita (pillar 1 on the SPLISS report). The national newspapers from the respective countries reported on the latest financial data for 3rd quarter 2018, where the researcher examined the unemployment rate that determines the health of the economy of Asia's Four Tigers ("Higher unemployment rate, more retrenchments in Q2: MOM," 2018; *Hong Kong – Unemployment rate remains steady in June quarter,*

2018; Reuters, 2018; Yurou, 2018). The compilation of the macro data is in Table 3 while the meso data is summarized in Table 4.

Based on the World Bank's ranking on countries on their ease of doing business, Singapore is ranked second, Hong Kong in fourth place, South Korea in fifth position while Taiwan comes in at number 13. This is a reflection of the rapid economic progress that Asia's Four Tigers have made since the 1960s (*Ease of Doing Business Score*, 2018).

These macro data indicates that these Asian nations are export-oriented free market economies , with Hong Kong and Singapore being the financial hubs in Asia. In fact, among the four nations, Singapore and Hong Kong share the most similarities in terms of economic development, population size and Chinese majority in population, as well as socio-political institutions as former British colonies.

Economic development and affluence can precipitate in systematic and cultural changes, which affects a society's values. These cultural values play an integral role in the development of an individual's affective, cognitive and motivational process (Elliot, Chirkov, Kim, & Sheldon, 2001) as cited in (H.-B. Chia et al., 2007). These values form the mindset which influence an individual's choice of career and the decisions that they make regarding their education and career choices.

Table 3. Overview of macro aspects for Asia's Four Tigers

Aspect-2017 data	Hong Kong	Singapore	South Korea	Taiwan
Population	7.42 million	5.6 million	51.23 million	23.72 million
GDP per capita	64,533	98,014	41,388	52,305
Unemployment Rate	2.8% (3Q2018)	2.1% (3Q 2018)	4.2% (3Q 2018)	3.76% (3Q2018)
Mandatory military conscription for males	Not applicable	Mandatory at 22 months. Formerly 30 months	Mandatory at 21 months. W.e.f 2020, 18 months	Law changed in Jan 2018 to voluntary service for 4 months

Sports Policy Focus	Community Sports Elite sports Major sports events	(i) Sports as a national language (ii) Future ready through Sports (iii) Sports without Boundaries (iv) Organizing for Success	Commercial funding for the sports leagues KSPO – Enjoy Sports, We Support	Government funding Elite sports development, Sports for All, Sports for life (provision of sports facilities) and Sports Industry
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Source of data on GDP (“List of Countries by Projected GDP per capita 2018 - StatisticsTimes.com,” 2018)

Source of data on population (“Hong Kong Population (2018) - Worldometers,” n.d.; “South Korea Population (2018) - Worldometers,” n.d.; “Statistics Singapore - Population and Population Structure - Latest Data,” 2018; “Taiwan Population (2018) - Worldometers,” n.d.)

Source of data on unemployment - (“Higher unemployment rate, more retrenchments in Q2: MOM,” 2018; *Hong Kong – Unemployment rate remains steady in June quarter*, 2018; Reuters, 2018; Yurou, 2018)

Table 4. Overview of meso aspects for Asia's Four Tigers

2018 updates	Hong Kong	Singapore	South Korea	Taiwan
Athlete Career Prog	Via Hong Kong Sports Institute	Via national sports bodies for all carded athletes	National sports bodies for retired athletes	Started in 2013; Halted in 2016
Dual career at tertiary	School Sports Program	Singapore Sports School (middle school)	Korea National Sport University	National Taiwan Sports University
Summer Olympic games medals (G=Gold; S=Silver; B=Bronze)	1 G 1 S 1 B	1 G 2 S 2 B	90 G 87 S 90 B	5 G 7 S 12 B
\$ rewards for Olympic Gold	For 2020 Tokyo Olympics, HKD 6million (USD766,970)	USD742,000	USD 55,000	USD952,000

Source: (“Hong Kong - Medals in each Olympic Games,” 2018; “Singapore - at the olympics - olympic medals and olympic facts,” n.d.; “South Korea - at the olympics - olympic medals and facts,” n.d.; “Taiwan - at the olympics - olympic medals and facts,” n.d.)

2.4.1 Policies of mandatory military conscription in Asia's Four Tigers

Among the four nations, the educated populace share common values that emphasize academic success, which would lead to better career prospects for the future. This is evidenced by the literature review in Asia which shows a common thread of problems with youth athletes and the stress that they face as they try to grapple with increasing workloads at schools with increasing physical demands of their sport while they make the transition from youth to senior squad.

Interestingly, among the four countries, Hong Kong is the only one that does not instill mandatory military conscription for the male citizens. Traditionally, the purpose of mandatory military service is to fulfill broad aims of national security and nation building. It can act as an important force multiplier in periods of national emergency, and can equally act as an important social equalizer, reinforcing the individual's connection to the nation and society (Robertson, 2018).

However, mandatory military conscription may have a disruptive effect on athletes who are training for major competitions, as they may not be able to sign out from the military camp to attend trainings with the national team. This results in them lagging behind their competitors, or even dropping out of the scene altogether (Low, 2018). Some athletes also sustain injuries

during military training, which could potentially end their sports career (Suppiah et al., 2015).

The policies of mandatory military conscription, which is a national defense policy, was revised recently in South Korea and Taiwan. But Singapore's national service period for males stays at 22 months. Part of the success for Joseph Schooling, Singapore's only Olympic gold medalist, has been attributed to him getting the deferment from National Service ("7 things we all can learn from Joseph Schooling's Olympic win - Alvinology," 2016; Sim, 2016). So the mandatory military conscription becomes a hurdle that male athletes in Singapore have to cross (Low, 2018).

Chen (2015)'s research on Taiwan showed that before the late 1960s, the priority of sports policy was the improvement of the peoples' military physical fitness through the education system, as national defense was critical during the times of troubled relations with People's Republic of China (PRC). After the United Nations excluded Taiwan in 1971, it channeled even more effort into elite sports in attempts to recapture international prestige and recognition.

This viewpoint is demonstrated by the overwhelming budget allocation to elite sports (49.05%) compared to development of Sports for All (6.14%) by the central government between 1968 and 1987 (S.-H. Chen,

2015). This reinforces Mike & Houlihan (2005)'s research that countries use sports as a tool to promote national identity, and to capture international recognition.

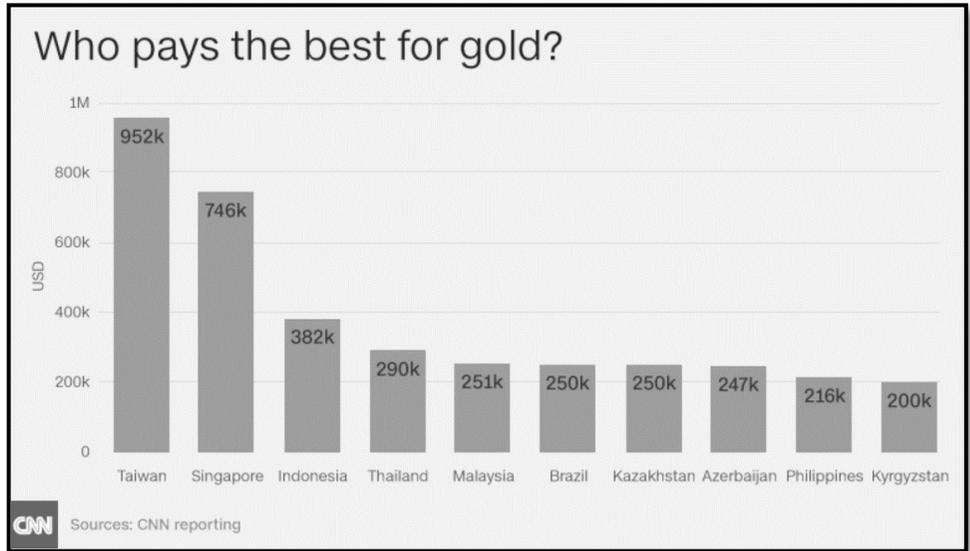
The Military Act was amended in December 2011, stipulating that all males born after 1 January 1994 do not have to attend mandatory military conscription. The policy has been revised to a voluntary four months basic training. It also permits college students to split training into two-month blocs during freshman and sophomore summer vacations or after graduation (R. Chan, 2012).

As for South Korea, the mandatory military conscription will be reduced to 18 months for new recruits entering the armed forces in 2020, as part of President Moon Jae-in's campaign pledge in 2017 (M. hyung Lee, 2018). Much media furor was generated when forty-two male athletes in the 2018 Asian Games were exempted from military service after winning the gold medals (M. H. Lee, 2018). The media frenzy centered on 26-year-old South Korean football captain Son Seung Min, who was due for enlistment to the forces. Fortunately, South Korea beat Japan 2-1 in the finals to win the gold (Tottenham, 2018).

2.5 Implications of cultural and macro-sociological factors

The next hot topic in the media centered on the prize money awarded to Olympic medalists, which came to the fore recently after Singapore's swimming champion struck gold in 2016 Rio Olympics and was awarded SGD 1million, which is equivalent to USD746,000 (Cunningham, 2018; Leung, 2016). France, South Korea, Japan, China and the United States also reward medalists with money -- but on a much smaller scale. China offers about \$36,000 for a gold medal win, while the United States Olympic Committee rewards gold medalists with \$25,000.

South Korean gold medalists get USD55,000 and all male medalists at the Olympics, plus gold medalists at international competitions like the Asian Games also get an exemption from the mandatory military conscription (Cunningham, 2018). South Korea, India and Azerbaijan are among those countries that also reward the coaches of gold medalists. Prize money ranges from \$7,000 to \$123,000 (Refer to Figure 9).



Source: CNN (Leung, 2016)

Figure 9. Comparison of prize money won by Olympic gold medalists at 2016 Rio Olympics

Positive correlations from winning more medals in international competitions have been shown to lead to increased funding from the government, as evidenced by Team Hong Kong’s stellar performance at the 2018 Asian Games. Careem (2018)’s report stated that,

“In February 2018, Financial Secretary Paul Chan Mo-po announced in his budget speech that Hong Kong sport would receive an additional HK\$5 billion to be added to the Elite Athletes Development Fund, which now stands at about HK\$12.5 billion. The

Hong Kong Sports Institute, which trains the city's elite athletes, had a budget for 2017-18 of HK\$558 million but can only access investment returns from the fund for its program.”

For the upcoming 2020 Tokyo Olympics, Hong Kong developer Henderson Land pledged dollar for dollar matching prize money for the winner of gold medals. Chairman of the Sports Institute, Lam Tai-fai announced that ‘the incentive scheme for Tokyo Games is HK\$3 million for an individual gold medal, and it would become HK\$6 million if the sponsor commits to the same dollar-for-dollar arrangement.’ (K. W. Chan, 2018). HKD 6million is equivalent to USD 766,970 based on current exchange rates. Based on this latest news, it would make Hong Kong the nation that pays the second largest prize incentive for Olympic gold medals ahead of Singapore. Taiwan's incentive award remains the highest at USD952,000 (Leung, 2016).

Following the success of Team Singapore athletes in 2016 Rio Olympics, where the largest contingent of twenty-five athletes participated and Joseph Schooling won the Republic's first gold medal, the government launched a Team Singapore fund in March 2017. A sum of \$50 million has been pledged to match sports donations, dollar-for-dollar, over the next five years. This is over and above the amount of funding that is committed to High Performance Sport.

The One Team Singapore Fund is created specifically for all supporters of Team Singapore to contribute to enhance the High Performance Sport (HPS) system for Singapore athletes. All donations will be deployed in areas that will benefit Team Singapore (TS) athletes directly in their training and competition, plus providing TS athletes with post-sport career or education support through grants (“One TeamSG Fund - ActiveSG,” 2017).

From the above examples from Hong Kong and Singapore, it is apparent that sporting success on the world stage leads to increased funding for the sports, especially from the private corporations. But the conundrum remains – should more funds be invested in a certain sport before it can bear fruit?

However, it is not just about funding and money that determines an elite sports system’s success. Based on the SPLISS report, money is important, but more money in does not equate to more medals out. (De Bosscher et al., 2015) The provision of support services for athletes’ career and education usually comes at no cost to the athletes, even though the sports organizations would have to fund the programs and commit the organizational and human resources to run the programs.

In Asian context, the organization culture of the national sports bodies is strongly influenced by the policies of the ruling party/ government since

the national bodies are funded by the government. Asia's Four Tigers share similar national contexts (i.e., economic and welfare situations) and many common cultural characteristics (for example, power distance, individualism, long-term orientation) (Hofstede, Hofstede & Minkov (2010) as cited in (Kuettel, Boyle, & Schmid, 2017)). These macro and meso indicators influence the decision-making process of elite athletes as they contemplate retirement from sports at various stages of their lives.

According to Lee and Ku (2007) as cited in (S.-H. Chen, 2015), the East Asian welfare regime can be identified as developmental/ productivist. This includes features such as:

- (i) low and limited welfare provision by the government but strong intervention by the government in the field of development
- (ii) core values of economic development
- (iii) limited role of markets in welfare provision
- (iv) important role of family in welfare provision
- (v) primary welfare provision to civil servants, teachers and military servicemen.

Based on these characteristics in developmental welfare states, one can derive that firstly, governments play a strong role in sports policy, but

provide limited funding for sports development. Secondly, sport is less commercialized. These characteristics stand in contrast to the Western values of individualist culture and high support for elite and professional sports in the great sporting nations like the US and UK.

Historically, Hong Kong and Singapore were former British colonies, while Taiwan and South Korea were occupied by the Japanese for 50 years and 35 years respectively. The development of elite sports policy and culture took on different formats at different times through the recent decades, depending on the governing party or colonial master.

But culture-wise, the majority of Asian families will perceive education as the best avenue for upward mobility (Ang et al., 2009 as cited in Brooke (2014). With strong competition for jobs and places in prestigious schools and universities in Singapore, it results in high dropout rates of Chinese males in competitive sports beyond the age of 16 (Wang, 2013). Hence certain support programs are implemented in Singapore's case to mitigate the different issues that the small city state faces, which will be covered in detail in Chapter 3.

The influence of culture impacts the mindset of the athletes and their key stakeholders. The problems experienced by Korean athletes who did not succeed on the world stage of sports, which led to unsuccessful transitions to

a post-sports career was reported in the media (Borowiec, 2018; Hooyeon, 2015). Instead of providing education and career support only for retired athletes (Hong & Coffee, 2018), the Korean Sport & Olympic Committee (KSOC) took a pro-active approach to organize the 1st IOC Athlete Career Program (ACP) on 23 November 2018.

The workshop was facilitated by former gold medallist and IOC member, Ryu Seung Min, where the researcher attended as an observer. The Korean athletes shared their views that pursuit of studies or work would distract them from their pursuit of sports. They also felt that they do not have the time or energy to do anything else since they train up to ten hours per day.

With coaches and officials in attendance, this first workshop heralds a new direction for athlete career and education support in Korea, which attempts to change the mindset that the pursuit of sports comes first, and everything else in life can wait.

This stands in stark contrast to the mindset of elite athletes in Singapore, who understand that the pursuit of sports is just a passing phase in life and they need the safety net of a qualification to fall back if they cannot achieve a podium finish in major competitions or become a professional athlete that earns enough money for their survival.

This observation by the researcher reinforces the importance of the environment, as well as organizational policies and support for athletes' development at any stage of their career, but it is especially influential when athletes are still young and impressionable. Hence Stambulova & Ryba, (2013) advocated a culturally specific approach in applied work with athletes to help them adjust to specific cultural and social environment.

Table 5 shows the actual implementation of the sport career transition organization intervention programs in Asia's Four Tigers, which forms part of the data gleaned from empirical study 1.

Table 5. Summary of sport career transition organizational intervention programs in Asia

Country/ Info Source	Organization/ Program	Aim/ vision/ strategy	Practitioners	Contents
Hong Kong	Hong Kong Sports Institute (HKSI) Hong Kong Sports Commission	<p>Vision: Established in 2004, HKSI is the training base for more than 1,000 athletes. It aims to become the region's delivery leader of elite training system by providing state-of-the-art, evidence-based elite sports training and athlete support systems, resulting in sustainable world-class sports results.</p> <p>Mission: Working in partnership with the government, National Sports Associations, Sports Federation & Olympic Committee of Hong Kong/China (SFOC) to provide an environment in which sports</p>	Athlete Affairs Department (AAD) – Total of 19 staff looking after the welfare of 400 elite athletes staying in the HKSI hostel.	<p>Athlete Support and Development Program provides for HKSI scholarship holders the following –</p> <p>(i) Elite Athletes Education support via</p> <ul style="list-style-type: none"> - Tutorial support - Continuing education subsidy - Hong Kong Athletes Fund - Partnership school program for secondary school education - Elite Athlete School Network - Nomination of Elite Athletes for Admission to universities

Country/ Info Source	Organization/ Program	Aim/ vision/ strategy	Practitioners	Contents
		<p>talent can be identified, nurtured, and developed to pursue excellence in the international sporting arena.</p> <p>To support the elite training programs, the HKSI receives funding from the Elite Athletes Development Fund, which was established with a one time trust fund of HK\$7 billion from the Government in January 2012 to boost preparations for the 2012 London Olympics.</p> <p>("Hong Kong Sport. Inst.," n.d.)</p>		<p>(ii) Elite Athletes Vocational and Personal Development Support via</p> <ul style="list-style-type: none"> - Personal Development Program - Exchange Program - Elite Coaching Apprenticeship Program <p>(iii) Incentive Award & Recognition Scheme via</p> <ul style="list-style-type: none"> - Outstanding Junior Athlete Award - Jockey Club Athlete Incentive - Youth Athletes Scholarship - Performance Recognition Scheme <p>(iv) Athlete Residence and Social Support via</p>

Country/ Info Source	Organization/ Program	Aim/ vision/ strategy	Practitioners	Contents
	Sports Federation and Olympic Committee of Hong Kong, China (SFOC)	Established since 1950, the SFOC works closely with NSAs for the development and promotion of sports. Each NSA is authorized to organize and manage local sports activities in its own field. These activities include organizing local and international competitions held in Hong Kong, providing training from beginner to elite levels, selecting local athletes to enter international competitions, and training umpires and coaches. (“Sports Federation & Olympic Committee of Hong Kong, China,” n.d.)		<ul style="list-style-type: none"> - Athlete Hostel - Social welfare support <p>In July 2008, the SFOC launched the “Hong Kong Athletes Career and Education Programme” for retired athletes.</p> <p>SFOC also disburses Olympic Solidarity Scholarships for athletes receiving financial assistance in local and overseas training. Financial support has been extended to outstanding coaches who, through International Federations’ and NSAs’ recommendations and SF&OC’s nominations to IOC, may receive top-level training overseas. Under SF&OC, Hong Kong Olympic Academy provides free training courses to sports leaders, administrative executives, coaches and technicians.</p>

Country/ Info Source	Organization/ Program	Aim/ vision/ strategy	Practitioners	Contents
South Korea	The Korea Foundation for Next Generation Sports Talent (NEST)	<p>The NEST was established in 2007 by the Ministry of Culture, Sports & Tourism. In 2008, NEST launched the Global Sports Leadership Program. Collaborating with and funded by the Korean Sports Promotion Foundation, it aims to be a Sport Talent Academy, to promote the advancement of local sports talents as well as next generation global sports leaders.</p> <p>(“Next Generation Sport Talent Athletic talent academy,” n.d.)</p>	Staff in NEST foundation project team run education related programs.	<p>Retiring/ retired athletes are entitled to the following services by NEST –</p> <ul style="list-style-type: none"> (i) Career development for NEST via Cultivating international sports talents, international referees and women sports leaders (ii) Education for building job competency - courses on English, international sports diplomacy, sports events and marketing, leadership and negotiation <ul style="list-style-type: none"> - coaching-related courses - sports administrator and sports science courses - big data expert courses (iii) Advanced Education <ul style="list-style-type: none"> - Sports Administrator Masters course (eg. Dream

Country/ Info Source	Organization/ Program	Aim/ vision/ strategy	Practitioners	Contents
	Korean Sport & Olympic Committee (KSOC)	<p>The Athletes' Commission of the KOC collaborates with the Adecco Group to do career preparation workshops for retiring/ retired athletes. ("Korean Sport Olympic Committee," n.d.)</p> <p>In collaboration with Adecco and IOC on the ACP, the 1st IOC ACP workshop was organized for 32 athletes and officials on 23 Nov 2018.</p>		<p>Together (Masters sports program)</p> <ul style="list-style-type: none"> - International sports administrator (eg. MOU with University of Tennessee, Knoxville) <p>Programs offered by KSOC</p> <ul style="list-style-type: none"> (i) Mentoring service, where athletes are linked with professors in sports, national team coaches, teachers, entrepreneurs, etc (ii) Employment portal (iii) Education support services (iv) Vocational support services on career counselling, job preparation, etc

Country/ Info Source	Organization/ Program	Aim/ vision/ strategy	Practitioners	Contents
Singapore	Singapore National Olympic Committee (SNOC)	<p>Established since 1947, the SNOC is a national non-profit organization that coordinates the selection of Singaporean athletes for competition at the major games such as the Olympics, the Asian Games, the South East Asian Games and the Commonwealth Games.</p> <p>Through the SNOC, the mission of the Athletes' Commission (AC) is to represent the views of Singapore's athletes. Areas of focus include:</p> <ol style="list-style-type: none"> 1. Athlete Career & Transition 2. Athletes' Education 3. Policies 4. Athletes Engagement 	SNOC Athletes' Commission and Adecco staff	<p>Under the SNOC, the Major Games Award program (MAP) is an incentive scheme to reward medal-winning athletes, by providing a cash payout to athletes who win medals at the major games.</p> <p>SNOC introduced the Singapore Sports Awards (SSA) in 1968 to recognise the finest achievements of TS athletes for Sportsboy/ Sportsman of the Year, Sportsgirl/ Sportswoman of the Year and Coach/ Team of the Year.</p> <p>The Athlete Career Program (ACP) started in Spore since 2010, in collaboration with Adecco and SNOC.</p> <p>The AC works with SSI to organize career preparation workshops for the athlete.</p>

Country/ Info Source	Organization/ Program	Aim/ vision/ strategy	Practitioners	Contents
	Sport Singapore/ Singapore Sports Institute (SSI)	<p>SSI's Vision: To become a 21st Century World Class Sports Institute.</p> <p>SSI endeavours to be a sports institute of significance where we provide the best support to TS athletes, so that they can perform at their maximum potential, to fulfill their sporting aspirations and to inspire the Singapore Spirit.</p>	SSI High Performance Planning department	<p>Under SSI, the Sports Excellence (Spex) programs for Team Singapore (TS) carded athletes has the following:-</p> <p>(i) spexScholarship provides an enhanced level of support for athletes within the High Performance Sports (HPS) pathway. It includes both financial and programmatic support to prepare athletes to excel at the Major Games. The spexScholarship supports talented athletes who are assessed to have medal contention at National, Regional, Continental and International Games.</p> <p>In addition to developing athletes' sporting potential, the spexScholarship will also assist athletes in their education, career, and personal development.</p> <p>(ii) SpexEducation Scheme is a customised scheme that develops a</p>

Country/ Info Source	Organization/ Program	Aim/ vision/ strategy	Practitioners	Contents
	Sport Singapore/ Singapore Sports Institute		SSI Athlete Services department	<p>more holistic and robust system of support for student-athletes to cope effectively with the dual demands of sports and their education. The objective is to implement a comprehensive athlete support system designed to help student-athletes achieve in their sport at the highest possible level without compromising their academic aspirations.</p> <p>(iii) spexCareer Scheme is a customized scheme that seeks to develop athletes' career by partnering with companies to offer various form of employment opportunities including internship, apprenticeships, job placements and flexible workplace practices for TS Athletes.</p>

Country/ Info Source	Organization/ Program	Aim/ vision/ strategy	Practitioners	Contents
				<p>(iv) spexEntrepreneurship Program is an initiative tailor made for TS athletes who have an entrepreneurial spirit and wish to start their own business. Collaboration with partners such as ACE (Action Community for Entrepreneurship) helps to facilitate the connection for the athletes over 3 areas (i) Mentorship, (ii) Access to resources and (iii)Connections with entrepreneurial individuals, networks and communities.</p> <p>(v) Operation of the Athlete Services Centre that is linked to the Sports Medicine and Sports Science areas. It functions as a recreational hub where athletes can study, rest and play in between their trainings.</p>

Country/ Info Source	Organization/ Program	Aim/ vision/ strategy	Practitioners	Contents
	National Youth Sports Institute (NYSI)	<p>The NYSI is a youth-centric sporting organization that aims to value-add and positively impact the Singapore youth sports ecosystem. It works closely with the SSS and SSI to drive youth sports development through the 4 functional areas of Talent Identification and Development, Youth Coaching, Sports Science and Athlete Life Management (ALM).</p> <p>(“The National Youth Sports Institute,” 2015)</p>	NYSI Athlete Life Management (ALM) team	The ALM team encourages student-athletes to successfully balance sports, academics and life via educational and career pathways. Through life-skill workshops, counseling sessions and seminars with the relevant stakeholders, it facilitates opportunities that allow student-athletes to fulfill their sporting potential while preparing themselves for a future beyond sport.

Country/ Info Source	Organization/ Program	Aim/ vision/ strategy	Practitioners	Contents
	Singapore Sports School (SSS)	<p>Established since 2004, the SSS is a specialized independent school that offers selected youth an integrated academic and sports program.</p> <p>Our Vision Every student-athlete a Champion</p> <p>Our Mission Nurturing Learned Champions With Character</p> <p>("About Singapore Sports School," 2004)</p>	Student Development team and Athlete Life mentors	<p>Holistic student development is deployed via the following approaches –</p> <ul style="list-style-type: none"> (i) Sport focused education (ii) Enrichment and Electives programme for these Champions for Sports where student-athletes are exposed to jobs in the sport-related industry (iii) Character and Citizenship Education Program is carried out through weekly formal lessons covering Education and Career Guidance, Athlete Life-Skills Modules, National Education, Sexuality Education, Cyber-wellness and Values Education.

Country/ Info Source	Organization/ Program	Aim/ vision/ strategy	Practitioners	Contents
Taiwan Source of Info: Ms Ann Chen. Member (Athletes' Commission) Chinese Taipei OC	Olympic Committee collaboration with Adecco Sports Administration, Ministry of Education	Athlete Career Program (ACP) was kickstarted in 2013. Thomas Tsai, President of Chinese Taipei OC, signed the agreement with Patrick Glennon, Adecco SVP for the IOC ACP along with Cindy Chen, Regional Head for Adecco north East Asia. ("Supporting athletes in their professional Career," n.d.) Focus on elite sports development, Sports for All, Sports for Life (provision of sports facilities) and Sports Industry, with greater budget allocated for elite sports as a way to emphasis national identity.	ACP was administered by the NOC, but the program was stopped in 2016 after the key personnel left. Due to political issues, there was no current follow-up.	Workshops and consulting sessions for retired athletes, organized together with Adecco. Sharing sessions by former athletes. More focused on short-term results in terms of matching retired athletes to vacancies in companies. However, awards for Best Athletes and Coach of the Year remain, as monetary incentives. Planning overall sports policy guidelines and producing strategic plans for sport policies. Managing national sports events and legislation of policies.

Chapter 3. Methodology

Case study research is one of the branches of social science research deployed in settings where

- (a) the main research questions are ‘how’ and ‘why’
- (b) the focus of study is based on contemporary phenomena
- (c) the researcher has little or no control over behavioral events and outcomes (Yin, 2004)

Hence the qualitative method via a single case study was employed for this research. In the context for sports studies, the case study methodology was applied in areas such as organizational behavior, sports marketing, sponsorship, and community development (B. Smith & Caddick, 2012; Torraco; Richard, 1997). The focus for this case study is on the sport career transition organizational intervention practices in Singapore.

Comparative analysis was also done as a best-practices study for the evolving sport system in Singapore to continue attracting talents and promote an athletic-centric support system, which forms part of the data for empirical study 2. An analysis is done of the sport career organizational intervention programs in other developed capitalist countries in Asia, focusing on Asia’s Four Tigers of South Korea, Hong Kong, Taiwan and Singapore as these countries have a population of less than 56 million (10x of Singapore’s

population). In addition, these four nations share similarities in their Asian culture and economic development.

The two sports powerhouses in Asia - Japan and China are not in the study as their population exceeded more than 10 times of Singapore's population of 5.6 million ("Statistics Singapore - Population and Population Structure - Latest Data," 2018).

By taking this approach, it allows the researcher to build on existing knowledge, to develop new concepts and hypotheses, and to generate new hypotheses (if applicable). New insights into the 'how' and 'why' of the phenomenon can illuminate new relationships between variables, perhaps adding to the Holistic Athlete Career theory (P Wylleman et al., 2004) and Conceptual Model of Adaptation to Career Transitions (Taylor & Ogilvie, 1994).

3.1 Participants

Non-probability sample of the research participants are taken. The purposive sampling is drawn from six staff and one volunteer from Athletes' Commission mentoring elite athletes in sport-related organizations that provide intervention strategies which support athletes' career and education.

Their roles as Athlete Life Advisors, Student Life Officers or being part of the Athletes' Commission provide deep insights into the research topic.

Unlike the sports institutions in Australia and New Zealand that require practitioners to have a post-grad qualification in Counselling or Psychology-related fields, the researcher notes that only two of the seven practitioners have such qualifications, while two out of the seven practitioners were former national athletes. Table 6 reflects the profile of the seven research participants.

3.2 Instrument

Interactive techniques to collect primary source data is used, using one-on-one semi structured interviews. The interviews with the seven research participants are done face to face in September 2018, entirely in English at the workplace of the participants. All interviews were digitally recorded and transcribed verbatim, which forms the empirical data for study2. The interviews range from 40 minutes to 60 minutes per person.

Correspondences with representatives from the sports organizations in South Korea, Hong Kong, Taiwan as well as information from the governmental portals and websites, formed the source of data for empirical study1. The researcher also attended as an observer at the first IOC ACP workshop conducted in Seoul for 32 athletes and officials on 23 November 2018. The summary has been collated in Chapter 2.

Table 6. Summary of Participant Profiles

Participant Code	Frequency of support provision per month	Athletes mentored per month
P1	0 to 5 times	2-4
P2	More than 15 athletes	More than 15
P3	0 to 5 times	4 to 6 times
P4	0 to 5 times	Above 6
P5	More than 15	Above 6
P6	5 to 10	2 to 4
P7	5 to 10	Above 6

3.3 Procedure

Ethical approval was obtained from the researcher's institution. Research information was disseminated to potential participants via email to inform them the purpose of the research. Participants contacted the researcher to give their affirmative to be involved in the research. Thereafter, a mutually agreeable time was agreed for the face-to-face interview.

Consent forms are signed by the research participants before they started the interviews. The participants are informed that participation is entirely voluntary and the participants can withdraw from the research at any time. All information supplied during the research will be held in confidence, and all data will be safely stored with the researcher. Upon the completion of the interviews, the participants are informed of the next steps in the research process, so that they may ask any pertinent questions.

Reliability is attained through organizing a structured process for the interviews. This is followed by a structured process of recording, writing and interpreting data. To ensure accuracy, the interviewees were given the opportunity to check over their transcripts in case they wish to edit any of the details disclosed during the interview. All identifying features were then changed to protect the anonymity of the participants and each interviewee is identified by only a code P1 to P7. Upon confirmation that no further editing is required, the researcher proceeded to do data analysis.

3.4 Data Analysis

Analysis of interview data was based upon both inductive and deductive processes as outlined by (Blaikie, 2010). In addition, observations and inductions are made from both primary (Singapore/ Hong Kong/ South Korea/ Taiwan government documentation; salient local and international newspaper articles; online blogs from both Singapore and overseas) and secondary sources (relevant journal articles, Seoul National University and Singapore university students' dissertation) to offer an analysis of this phenomenon. As its ultimate objective, the research seeks to elicit meaningful generalizations (Struna, 2001) with regards to the programs for elite athletes' career and education, and develop positive outcomes for the future from the data.

The focus is on inductive coding since direct quotes from the transcripts were utilized to identify the themes and gain insight into the sports administrators' view. After the interviews were transcribed verbatim, the researcher listened to the interviews a few times to ensure familiarity.

The inductive process identified a number of higher order themes such as organizational interventional support, social-cultural context influencing the sporting ecosystem, collaborations with different parties to find creative solutions, and holistic athlete development. These elements were deemed critical in the successful management of a dual career in elite sport and managing the demands of education or work.

Deductive insights provided by theoretical assumptions, based on Wylleman and Lavalle (2004)'s developmental model on athlete transitions, as well as Taylor & Ogilvie (1994)'s Conceptual Model of Adaptation to Retirement, is adopted by the researcher throughout the research process which helped the inductive process.

The basis of the research was the importance of sport career transition organizational intervention practices, and the resulting impact on the athletes' mental health and well-being. At all stages of the research, the researcher endeavored to remain transparent, while maintaining a reflexive stance

throughout the entire research's lifespan, with the objective of maintaining research rigour.

3.5 Athlete Career & Education programs in Singapore

Before delving into the organizational intervention programs, the researcher would like to introduce the various sports bodies in Singapore.

3.5.1 Public Administration and institutions of sports

At the government level, the Ministry of Community, Youth and Sports (MCYS) was tasked with building a cohesive and resilient society. After re-structuring in 2012, the sports portfolio went under the Ministry of Culture, Community and Youth (MCCY). The mission statement of MCCY is

to inspire Singaporeans through the arts and sports, deepen a sense of identity and belonging to the nation, strengthen community bonds, engage youths and promote volunteerism and philanthropy, to build a gracious and caring society that we are proud to call home. ("MCCY - About us," n.d.)

Under the MCCY, the functions of the Sports division are to encourage community participation and engagement in sports, develop Singapore's sports industry and infrastructure for a vibrant sporting culture and a better

quality of life via the statutory board Sports Singapore (legal name remains as Singapore Sports Council, SSC in short).

The SSC was formed in 1973 (“Establishment of the Singapore Sports Council - Singapore History,” 1973) and rebranded as Sports Singapore in 2014. Various departments like the ActiveSG that manages the sports facilities and sports events for the masses, the Coach SG (coaching academy), the Singapore Sports Institute (SSI) and SportsCares – the philanthropic arm of SSC, work together to make the national vision of “Live Better Through Sports” a reality.

The SSI is the nation’s premier training institute for national athletes and provides elite athletes with training grants, sports scholarships as well as sports medicine and sports science support (“High Performance Planning - Athletes and Coaches - Sport Singapore,” n.d.).

To support the sporting aspirations of Singaporeans through sporting excellence and education, agencies like Singapore Sports School (SSP) and the National Youth Sports Institute (NYSI) are set up to nurture learned champions with character and to provide a youth development pathway. The SSP is officially opened on 2 April 2004 by Singapore’s second Prime Minister Mr Goh Chok Tong, and functions as a specialized independent

school to offer talented youths an integrated academic and sports program in a world class environment (“About Singapore Sports School,” 2004).

The Singapore Olympic and Sports Council, renamed as Singapore National Olympic Council (SNOC) in 1970, just celebrated 70 years of founding in 2017. The SNOC is the national non-profit organization responsible for Singapore's representation at the Games that are sanctioned by the IOC – namely the regional bi-annual South East Asian Games (SEA Games), Asian Games, Commonwealth Games, Asian Youth Games, Youth Olympic Games and the Olympic Games (“History - Singapore National Olympic Council,” n.d.). The Athletes’ Commission of the SNOC is the conduit to run the IOC Athlete Career Program.

Sports Excellence starts from nurturing the youth and the Singapore Sports School (SSP) – a specially designed school for young sports talents, is a standing testimony of the sports review in 2001. Unlike other mainstream schools, the academic curriculum is tailored around the student-athletes’ training and competitions. Officially opened in 2004 to the tune of S\$75 million in infrastructure costs, the first intake of 140 students walked through the doors on 5 January 2004 with eight academies, namely swimming, badminton, table tennis, soccer, netball, sailing and track and field.

Since then, the SSP has grown from strength to strength to produce world champions in various sports. The repertoire of sports on offer has also increased with intakes for athletes in fencing, wushu, synchronized swimming, silat, gymnastics and golf. Other than winning medals in the sports arena, graduates from SSP had 100 percent pass rates and more than half of the school's first batch of International Baccalaureate (IB) graduates - 13 out of 19 - attained at least 40 points out of a maximum of 45 (Teng, Jan 2016). It also provides pathways for further education through the polytechnics and Nanyang Technological University.

In 2014, the current Prime Minister Lee Hsien Loong challenged the SSP to become the national academy of sports excellence within the next decade. With the objective of raising more budding sports talent in the pipeline, the National Youth Sports Institute (NYSI) was set up in November 2015 to support and develop student athletes within the SSP as well as those in the mainstream and independent schools, and raise standards in the youth sports excellence eco-system.

With the tagline – “Building Tomorrow’s Athletes Today”, the team of specialists from the departments of Talent Identification, Youth Coaching, Sports Medicine and Sports Science, and Athlete Life Management extends

specialized services to student athletes all across Singapore (“The National Youth Sports Institute,” 2015).

The NYSI is set up to plug the current gaps in the sporting eco-system, where the SSI provides the training grants, as well as sports science and sports medicine support to the elite athletes who are already representing Singapore at regional and world championships. The Sports excellence training grant is only given to athletes who have already made it to the national team. However, thousands of young developmental athletes are left in the lurch as no funding or competition opportunities are offered to them.

Before the young athletes can qualify for the national team, they need more overseas competition opportunities and exposure to training camps so that they can be inducted into the national squads in time to come. Advice on proper nutrition for growing bodies, as well as sports science techniques for better training and recovery, plus career and education counselling for the youth athletes’ holistic development are offered to youth athletes that come under the radar of the NYSI (Chandra A., 2015).

On the other hand, the National Sports Associations (NSAs) in Singapore, are tasked to develop sports at the grassroots level. The NSAs develop aspiring athletes into elite athletes through structured training programs and organize the sport-specific activities for the community. NSAs

are registered as clubs and societies so that they can raise their own funds, and they also obtain their operational funds through SSC.

3.5.2 Elite Sport Development in Singapore

Sports development in Singapore is still at an infancy stage, given that the 20th smallest nation in the world (“The smallest countries in the world by area,” n.d.) only became independent on 9 August 1965 (“Singapore joins the United Nations - Singapore History,” n.d.). With only 53 years of history in the making, the government emphasized sports for all and sports for life policies so that the limited funds can be utilized for the general population rather than only an elite few.

At the turn of the century in 2001, the government set up a Committee of Sporting Singapore (CoSS) to redefine sports and bring Singapore Sports from Third World quality to the First. CoSS recognised the profound impact that the early champions had on community bonding and national pride.

The CoSS compiled 40 recommendations from the feedback among the various stakeholders in the sporting fraternity – from coaches, athletes, parents, sports clubs, administrators, officials, etc. It marked a tectonic shift in the government's position on sport. With the CoSS, the government recognized that a new century was an opportunity to recreate the sports paradigm for Singapore. CoSS boldly called for extraordinary levels of policy

support, programming and funding from a whole-of-government platform (Ministry of Community Development and Sports, 2001).

In 2010, the Ministry of Culture, Community & Youth (rebranded from MCDS) and its statutory board, the Singapore Sports Council (SSC) launched Vision 2030, a 20-year road map about how sports can best serve Singapore in the coming decades through four themes –

- (i) Sports as a national language
- (ii) Future ready through Sports
- (iii) Sports without Boundaries
- (iv) Organizing for Success

(“MCCY - Vision 2030,” n.d.)

Vision 2030 is the SSC’s 20-year road map for using sport as a strategy for Singaporeans to have a healthier and better life through the impactful experience of Sport. Vision 2030 is best told as the story of how sports can be used as a strategy to achieve national priorities such as developing healthy and resilient people, forging strong united communities, retention of core values, shared memories, strengthened friendships as well as building a dynamic society and economy.

With the change in policy and dedication of resources to elite sports development, there was a boost in funding and support from the government

and other corporations in the last decade. The efforts bore fruition as the women's table tennis team won a silver medal at the 2008 Beijing Olympics, after a medal drought of 48 years when Tan Howe Liang won the first silver medal for self-governing Singapore during 1960 Rome Olympics (Joshua, S. ,1960). The women's table tennis team also won two bronze medals in 2012 London Olympics.

The sweet taste of success came in 2016 when Joseph Schooling won the gold medal in Rio Olympics in the 100m butterfly with a timing of 50.39seconds. The time set a new Olympic record, smashing Phelps' record of 50.58 seconds at the 2008 Beijing Olympics. Joseph beat three other swimming legends, Michael Phelps (USA), Chad de Clos (South Africa) and Laszlo Cseh (Hungary). They all touched in 51.14 – a half-body length behind Schooling's winning time of 50.39 (“Rio 2016 100m butterfly men - Olympic Swimming,” n.d.).

Paralympian Yip Pin Xiu, holder of three Paralympic gold medals and two world records, was also lauded for her double-gold medal achievements in Rio (Chen H, 2017). In the wake of Singapore's recent Olympic successes, there has been an increased belief that local athletes can succeed on the world stage (Teng K, 2016). With droves of supporters cheering Schooling on his

homecoming, this is one success story that drives home the message that Sport can galvanize a nation (C. Smith, 2017).

These successes on the world stage of sports did not come easy to a small nation with human resource as the only resource. From the early days since Singapore's independence in 1965, the government had focused on survival and developing its economy. Given Singapore's socio-cultural context with a small population and mandatory military conscription, two special programs for sportsmen were introduced to alleviate the situation.

The Foreign Sports Talent scheme (FST) was started in 1993 with the purpose of augmenting the talent pool, with the import of young talented athletes from the region with promises of income and training support. In exchange, the incoming athlete takes up Singaporean nationality and represents Singapore in international sporting events ("Foreign Sports Talent scheme – The Olympians," 2016). The male and female table tennis players that donned Singapore colors at the 2004, 2008 and 2012 Summer Olympics were China natives that took up Singapore citizenship under the FST Scheme (Brooke, 2014).

While more than 60 FSTs have been brought into Singapore over the years, only 35 of them remain in Singapore now. The question remains whether the FSTs really helped to bring up the local standard of Singapore

sports, or did the scheme impede the development of local sports talents? As the funding by SSC to the NSAs is based on corporate governance and success at major international and regional competitions, it is normal for the NSAs to take the fast track route of importing sports talents than to nurture them from young. The debate on the effectiveness of the FST scheme will continue, as sports like football continue to struggle with a small talent pool (Wang, 2018).

On the other hand, the mandatory military conscription, or the National Service (NS) was started since 1967 for every male citizen turning 18 years of age to be conscripted, regardless of ethnic background, socio-economic class or descent. Singapore Armed Forces (SAF) Sportsmen Scheme grants time off to national carded athletes (who are deemed to be medal potential at the major games supported by the SNOC) for training and overseas competitions during their NS (Lim, 2018). To-date, only three elite athletes who have represented Singapore at the Olympics and Asian Games have been granted deferment for NS, as national defense takes priority over sports representation (M. Chen, 2015; Sim, 2016).

3.5.3 Current support programs for Athletes Career & Education in Singapore

The SSI and the NYSI are the nation's premier institutes for the development of elite sports and nurturing of elite athletes and elite student-athletes. Various programs under the Sports Excellence (Spex in short) umbrella aims to provide the best support to the Team Singapore athletes so that they can fulfill their sporting potential and aspirations. SpexCarding is the entry point into the national sports development system. All athletes must be nominated by their respective National Sports Associations (NSAs) before they can be allowed into the national sports development system. ("High Performance Planning - Athletes and Coaches - Sport Singapore," n.d.)

Consideration for High Performance Sports pathway support is based on the athlete's profile / potential to achieve at the Major games (identified as South East Asian Games, Asian Games, Commonwealth Games, Olympics and World Championships) or its equivalent. Performance is assessed based on the athlete's holistic achievement profile and not on just a single point of achievement during the assessment period.

The apex of the support programs is the Sport Excellence Scholarship (spexScholarship), which provides an enhanced level of support for athletes within the High Performance Sports (HPS) pathway. spexScholarship

includes both financial and programmatic support to prepare athletes to excel at the Major Games. The spexScholarship supports talented athletes along the pathway at the 4 tiers of National, Regional, Continental and International Games.

In addition to developing athletes' sporting potential, the spexScholarship will also assist athletes in their education, career, and personal development. Ultimately, the aim is to develop athletes to take on leadership roles in their respective communities, serving as role models for Singapore's youth.

The Athlete Life department carries out SSI's and NYSI's mission of developing Singapore's athletes and student-athletes holistically in key areas of education, career, life skills and developing them to be Athlete Ambassadors for Team Singapore.

With the focus on helping athletes to strive towards the pinnacle of sporting excellence whilst preparing for a successful transition into life after sports, the Athlete Life department rolls out three main programs, namely the spexEducation, spexBusiness and spexEntrepreneurship Program.

The Sports Excellence (Spex) Education Scheme is a customised scheme that develops a more holistic and robust system of support for student-athletes to cope effectively with the dual demands of sports and their

education. The objective is to implement a comprehensive athlete support system designed to help student-athletes achieve in their sport at the highest possible level without compromising their academic aspirations. (“spexEducation - Athletes and Coaches - Sport Singapore,” n.d.)

Launched in November 2013, the Sports Excellence Career (spexCareer) Scheme is a customized scheme that seeks to develop athletes’ career by partnering with companies to offer various form of employment opportunities including internship, apprenticeships, job placements and flexible workplace practices for Team Singapore Athletes. More than 100 athletes from 30 sports have secured either internships or full-time jobs through these schemes (“spexBusiness - Athletes and Coaches - Sport Singapore,” n.d.).

Forming this specialized network of employers will strategically help Team Singapore Athletes to cope effectively with the dual demands of sports and their career; and prepare them to transit into successful post-sports career. The programme currently has 57 corporate partners and government-related bodies, including DBS Bank, food and beverage company Sakae Holdings, environmental solutions provider Hyflux, Fullerton Healthcare group, etc.

Deloitte Singapore, one of the fifty-seven spexBusiness Network partners, separately collaborated with Netball Singapore to offer employment

and education opportunities to the nation's netballers. The Football Association of Singapore also started a career scheme in 2014, where eligible players who apply for upgrading courses can get subsidies of up to 50 per cent (Chua, 2016).

To nurture athletes' entrepreneurial spirit, the spexEntrepreneurship Program is an initiative tailor made for Team Singapore athletes who have an entrepreneurial spirit and wish to start their own business. By working closely with partners such as ACE (Action Community for Entrepreneurship), the SSI Athlete Life team seeks to facilitate the connection for the athletes over three areas, namely

- (i) Mentorship
- (ii) Access to resources
- (iii) Connections with entrepreneurial individuals, networks and communities (“spexEntrepreneurship - Athletes and Coaches - Sport Singapore,” n.d.)(“spexBusiness - Athletes and Coaches - Sport Singapore,” n.d.).

3.5.4 Issues faced by Singapore dual-career athletes

In a recent survey conducted by SSI's Athlete Life staff in early 2018, Zulhilmi (2018) found that the following issues were reflected by the 127 national carded athletes (63 males and 64 females). 62 of them were student

athletes, while 52 of them were working, and 13 are full time athletes who are on the spexScholarship program.

(i) Issues faced by student-athletes (Zulhilmi, 2018)

Majority of the student-athletes have problems meeting the project deadlines and staying awake/ focused during lectures, as shown in Table 7 below. Student-athletes usually spend more than 40 hours per week on sport-related activities, and led to them having less time to spend on academics (Comeaux & Harrison, 2011; cited in Zulhilmi, 2018).

The heavy commitment to sport has resulted in mental and physical fatigue, and injuries sustained during participation of college sport (Comeaux & Harrison, 2011; Eitzen, 2009; Wolverton, 2008; cited in Zulhilmi, 2018).

Table 7. Challenges faced by student-athletes

Ranking Scale	Obtaining approval for Full Pay Unrecorded Leave (FPUL) or Leave of Absence (LOA) Response (%)	Classmates could not understand sporting commitments Response (%)	Meeting the deadlines for projects/assignments Response (%)	Staying awake and focus during lectures Response (%)
Most Challenging	21 (20%)	11 (10%)	35 (33%)	38 (36%)
Challenging	11 (10%)	14 (13%)	41 (39%)	39 (37%)
Less Challenging	29 (28%)	41 (39%)	24 (23%)	11 (10%)
Least Challenging	44 (42%)	39 (37%)	5 (5%)	17 (16%)
TOTAL	105 (100%)	105 (100%)	105 (100%)	105 (100%)

(ii) Issues faced by working athletes (Zulhilmi, 2018)

Most of the participants found two factors, ‘meeting deadlines for tasks/projects’ and ‘staying awake and focused at work’ challenging.

As athletes who aspires to achieve at the highest level in their sport, they go through rigorous amount of trainings and competitions (European Commission, 2014) after work. This would have caused physical and mental fatigue, leading to the challenge of meeting deadlines and trying to stay awake and focus at work, as reflected in Table 8 below.

Table 8. Challenges faced by employee-athletes

Ranking Scale	Obtaining approval for Full-Pay Unrecorded Leave (FPUL) Responses (%)	Colleagues could not understand my sporting commitments Responses (%)	Meeting deadlines for tasks/projects Responses (%)	Staying awake and focused at work Responses (%)
Most Challenging	35 (36%)	11 (11%)	21 (22%)	30 (31%)
Challenging	10 (10%)	19 (20%)	32 (33%)	36 (37%)
Less Challenging	18 (19%)	36 (37%)	29 (30%)	14 (14%)
Least Challenging	34 (35%)	31 (32%)	15 (15%)	17 (18%)
TOTAL (n)	97 (100%)	97 (100%)	97 (100%)	97 (100%)

The following chapter reveals the results of the interviews conducted with the practitioners, who give insights into

RQ1: Cultural and sociological factors affecting the junior-to-senior squad transitions in Singapore context

RQ2: The roles played by the practitioners in different institutions and different capacities

RQ3: Transition issues faced by Singaporean athletes

RQ4: Dual-career pathway for athletes in Singapore

Chapter 4. Results

The original aim of this research was to examine the experiences of the individuals who provide athlete life coaching to elite athletes in Singapore, in the context of organizational intervention support programs for elite athletes' career and education. However, during the data collection process, the study evolved to include the broader sporting environment. Hence, in the case of this superordinate theme of social-cultural context that Singapore, and most developed Asian societies exist in, it does play an important role in influencing athletes' and their stakeholders' decision-making process.

Across the interviews, the participants discussed their involvement with the athletes and sports, with two of them being ex-national athletes themselves, and another being the parent of an elite athlete who has gone through the mandatory National Service in Singapore. Data analysis resulted in the following super-ordinate themes-

- (a) Social-cultural context/ cultural legacy
- (b) Organizational sport career transition intervention programs
- (c) Holistic athlete development
- (d) Sporting eco-system

Each of the super-ordinate themes is then broken down into sub-themes, which refer to participants' career transition experiences within the contexts. The results are summarized in Table 9.

4.1 Social-cultural context/ cultural legacy

Based on research by Stambulova & Ryba (2013), the career pathways and decisions undertaken by the athletes is influenced by the various sociocultural contexts. Stambulova and her colleagues also argued that the policy-makers, sport practitioners and researchers are infused by their culture too.

In Singapore's social-cultural context where the pursuit of academic excellence reigns supreme, and funding for sports is outcome-based, the runway to sporting success is laced with various obstacles, leading to the sub-theme of early dropout of many youth athletes before they reach their sporting peak.

P7 maintained that the main challenge faced by elite youth athletes is "Making decisions between school and their sporting career. Whether or not they should pause their studies for sports, or forgoing sports because it will take too much time and sacrifice to even get selected. Sometimes student athletes have to make such decisions to make a

choice and with limited knowledge on the support system available for them.’

Challenges raised range from “Too much focus on results and difficulties that they face, from having to balance academic and sports at the same time’ to ‘Expectations on them from all directions – parents, schools, teachers, coaches, peers, and NSAs. Plus problems they face growing up all affect their sports”, shared by P5 who do counselling sessions with both student and working athletes.

P1 shared that,

“Actually, there are many issues. For example, not being able to balance studies and so on. Early specialization and so on. Maybe even not being selected in the team. These are the key ones. Not being able to break into the national team by a certain age. Plus National Service that the guys have to go through.”

In response to a prompt about the education system in Singapore and the academic load where athletes find it hard to juggle both sports and studies at the same time, P1 said that

“At the tertiary level, the academic load can be adjusted, perhaps by taking less modules per semester and taking a longer time to graduate.

In the future, if foreign athletes come in and they see that Spore has a

good education, as well as good competition and training venues, then they decide that they want to come to Spore. Then Spore can increase its competitive level. That could be one way as well.”

P3 also brought up the issue of changing the mindset of the key stakeholders like the parents and coaches.

“That’s why we need to educate parents about their child athlete, what it means to be a youth athlete, and how they can support their child better as parents are one of the key stakeholders. Since the youth athletes don’t work, parents invest their money and time to support their child(ren).”

Another practitioner P7 summarized it as

- i. Fear of failure. Studying and pursuing a normal career is far more stable and predictable than pursuing sports. To be able to reach a respectable sporting achievement, sacrifices have to be made. And sometimes, despite these sacrifices, you don’t reach the pinnacle of your sport. And you find yourself in a position where you’ve missed out on other opportunities.
- ii. Perception of “normalcy” and success. There’s not enough stories of non-conventional careers in Singapore. People don’t explore enough, or find out enough.

4.2 Organizational sport career transition intervention programs

Based on Mcardle, Moore, & Lyons (2014)'s study on the Olympians' post-Games experience in a career transition program, the findings elucidate the positive correlations of having organizational intervention transition support, which facilitate anticipatory and proactive coping for athletes.

The findings from this study underscore the importance of continuing to develop a more comprehensive understanding of sport career transition needs and how the athletes' needs can best be met.

This research reinforces the finding that organizational support plays an important role in both sport-related and non-sport-related context, which is significant for elite athletes to balance between sport and non-sport careers (Anderson, 1999; Gordon & Lavalley, 2012; Price et al., 2010). The sub-theme of collaboration with strategic partners is evident through the existing partnerships with educational institutions and corporations.

Since the biggest issue with the Singapore sports system is the loss of talents through the high attrition rate during the youth to senior squad transition, especially for the student-athletes in tertiary institutes, the NYSI organizes workshops with key stakeholders like the parents, youth coaches, physical education teachers and schools to gain their mindshare on the importance of providing appropriate support and coping mechanisms.

As part of the initiative to increase the reach of athlete life support to more youth athletes, athlete life coaching workshops are also conducted for the student life officers, as well as education and career counsellors in tertiary institutes, as they are the first contact point whom the athletes should approach when they encounter issues related to their coursework. Hence the feedback from the student life officers give a different perspective compared to those working in the national sports bodies.

P4 mentioned that the student-athletes have benefitted from the consultations that she had with them, as

“Students are mostly happy with the advice given as most of them did not expect that there are so many areas for considerations and the connections in which I was able to provide them with. Having students return for more chats are signs that I had been helpful to them. I have given advice like career advice, possible education pathways, personal developmental issues, social – emotional issues as well as scholarship matters.

P1 shared that ,” We look at ways where we can help them to get through this transition. A lot of athletes, when they stop training, they feel totally lost. We also want athletes to understand that many of the skills they

pick up during their sporting careers are transferrable to the workforce, such as teamwork, time management, commitment and perseverance.

P1 added that,

” Sometimes the athletes – they don’t think of this kind of things when they are competing. It’s only when they are almost retiring, then they think, “I don’t know how to present myself. I don’t know how to write a CV. And at the same time, our athletes – in terms of education standards – a lot of them are actually university-going students. Which means that the Uni also helps them to do resumes. So they don’t need this type of workshop. So the target should be those who are training full-time, or those not in tertiary institutes, like ITE graduates. These are the athletes who require our support. “

P1 shared information about the Athlete Career Program (ACP), “Collaborating with IOC and Adecco Basically gives athletes some lifeskills to help them better integrate into the workforce after they retire. So we are talking about life after sports. In terms of content, it starts from knowing yourself. It’s a topic of ‘Who Am I’ – where they figure out what personality you have – it’s a simple exercise using cards. Adecco, together with IOC, came up with a stack of cards – the Talent Sort cards. So from there – the athletes find what they are

interested in, whether they are a ‘data-driven’ person; people-oriented type or prefer working with their hands ... And from there, they derive some possible jobs that they are suitable for them. “

P3 commented that “Our athletes are sleep deprived. They end their training late, they still have homework and assignments to complete. On our end, we have developed a toolkit on time management, so that they can plan their time. If they have training in the evening, if they have pockets of time while travelling to venue or even during recess time, they just have to use whatever pockets of time to do their work or catch up with their studies. “

P7 surfaced some of the issues faced by the athletes as,

“Support provided, but in a very generalistic way. But these plans are pretty much adhoc and not formalised/standardized. Connecting the different parties to view the student athlete as a whole and make recommendations based on his holistic and long-term development as a student and as an athlete. This includes scheduling discussions with the academic mentors, the NSAs and perhaps career advisors.”

P2 shared about the work that was done to support the athletes. The emphasis is on being pro-active to find solutions and that athletes need to take ownership for the decisions that they make on the paths they undertake.

“We try to equip them with the skills to help themselves. So when they come for consultation, we will do a plan with action steps. We agree on the action steps. Then they will do the action steps, after that they will report to me how it’s going. We try to teach them to take care of themselves, rather than to spoon feed them. Unless it’s something which needs more follow up.”

P3 emphasized the point about being pro-active by sharing that

”We need to educate these athletes that the world doesn’t revolve around them; they need to be pro-active in certain areas and take ownership. Information shared earlier is much better so that people have time to react and make arrangements to cover work.”

Reflection from one of the practitioners P7 on the existing support practices said,

“I think the support is there, but the information seems to be limited to those who need or connected to the organization. In general, student athletes do not know that support is available and that they have more options. It’s only during the time which they think they need support that they start finding out and realising that they could have benefitted from it long ago. “

P5 felt that the support services for athletes to find internship and work opportunities are sufficient, as

“SSI provide networking sessions with corporate companies under the spexBusiness sessions. It’s organized on a quarterly basis and the athletes meet the HR personnel from the respective companies to discuss about suitable work placement opportunities. Yes I think SSI has done their part by ensuring the athletes know of any impending network sessions with the athletes. “

4.3 Holistic athlete development

In terms of holistic athlete development, the organizational support programs at the various stages of an athletes’ transitions aims to support athletes as they transit from junior-to-senior squad (within-sport transitions), transfer between different sports or transit out of sports. A longer term view of athlete development, like the LTAD requires a review of the whole sport system to cater for different stages of physiological development, and different rules, different competition for different stages of athlete development. It considers the myriad systems that affect athletes, (eg sports organizations, schools, recreation or club systems) and how these systems can work together to enhance the sport experience holistically rather than make conflicting demands on an athlete. (Balyi et al., 2004)

Taking a longer runway to athlete development would help the athletes' psychosocial development, thereby leading to improved mental health and wellbeing. Based on Singapore's Vision 2030, the tagline of 'Live Better through Sports' where sport helps people to live healthier and happier lives, and also imparts skills sets necessary for achieving success and upward mobility ("MCCY - Vision 2030," n.d.), sports is also a vehicle for bonding the multi-racial communities, and nurturing Singaporeans as social role models and national sporting heroes.

The findings indicate that athletes use the education guidance mostly to help with school or university issues. For career counselling, the athletes get individualised support as well as access to the job referral network via spexBusiness and spexEntreneurship for internship and job opportunities. These are reactive coping resources provided by the national sports bodies like the SSI and NYSI, which athletes tap upon.

Moreover, athletes attend the life-skills workshops like time and stress management, and goal-setting workshops because they are informed by the NSAs to attend. Although these workshops are the pro-active resources provided by the sports bodies, they are not organized on a regular basis to benefit more athletes.

P4 emphasized that it is important to “Allow them to enjoy the sports and stop making them feel that they need to be super humans. Some are just less academically inclined but they are better in sports.”

P5 gave feedback that, “Allow them to specialise later in life and allow them to enjoy the sport. When they enjoy the sports, then they have the motivation to carry on despite all the hard trainings that they have to endure.”

P6 shared that “For some particular sports, we are trying to look at the pathways, how we can plan a seamless athlete progression pathway. That’s one of the major concerns in Singapore sports, so Athlete Life team has taken up that challenge. In Spore, we are trying to build alternative pathways, because we know there’s a lot of attrition, a lot of dropouts, at ‘O’ and ‘A’ Levels, National Service. University life also makes it hard to pursue elite sports. We are trying to support the existing pathways, but also look at alternatives so that we can give some of these student athletes a chance to get back into the sport, by doing talent transfer and so forth.”

P1 gave feedback that,” some of them have different life goals. I mean, all of us, we know that sports is just one phase of life. But it’s not everything. If the 2nd phase of life comes in earlier (like good job opportunities), of course we will give up sports. Even if this Ivy league Uni comes with an offer, of course you will choose the Uni. And also the parents. Changing the mindset

of parents as well – that’s the key factor. Maybe it will change in about 10 years, but we need some success stories as well. Joseph Schooling is not a good example because for him, he trained overseas and became the champion. But can we do it in a local uni ? No one has done that yet.”

4.4 Sporting eco-system

The commonly-accepted mindset is that sports is only a passing phase of life which is short-lived and transient. Hence the athletes choose the dual-career pathway and those on the Olympic qualifying cycles opt for time-out from school and work to pursue their sporting ambitions. To them, it is not a matter of choice, but the sports industry is too small and under-developed for new entrants into the market.

Limited by a small population, the sports institutes also embarked on talent transfers and talent optimization so that athletes who lost interest in their current sport or did not make it to podium finish in their chosen sport can transfer their sporting talents to other sports.

The practitioners are cognizant of the fact that collaboration with relevant stakeholders and partners like tertiary institutions and corporations is necessary to make a positive impact on the sporting eco-system.

P3 added, ”There’s also this Athlete Life Coaching (ALC) course. At the moment, there’s just NYSI and SSI that deal with athletes. As these

athletes are in schools like tertiary institutions, we aim to get the student life officers in charge of sports clubs and athletes to attend the ALC course also. Since there are about 1,600 athletes, we can't service everyone. Hence the strategy is that these athletes can approach the student life officers in their schools, at their own convenience."

Another issue which was surfaced focused on mandatory military conscription for the males, which affected the athletes if they are not able to get deferment or enroll on the Singapore Armed Forces (SAF) Sportsmen Scheme that allows them to leave the training camp on a daily basis to train.

P1 mentioned that,"Our guys are all balancing dual careers. But I heard that Philippines team – the guys are all training 'full-time'. Because these are all army guys. They just play for the army, that's how they can train full-time."

Further probing by the researcher on the SAF Sportsman Scheme revealed that the selection criteria for the scheme have been tightened over the years. P5 agreed that "for athletes who go into national service, their sports performance would get affected. It's very demoralizing for the male athletes when they cannot perform at the same level as before; even if there's enough support from the SSI, the NSA and the army unit that allows the athletes to

exit the camp for team trainings, it's very difficult because this athlete wouldn't be at his peak.”

Proposals for positive impact to the sporting eco-system, based on the interviewees' feedback include:

- a) Having more collaboration with national sports association as partners to identify young potentials and making sure that this is the school in which they can enrol to and nurture towards national glory. For many of the students, it's no assurance where you would end up in your sport nor which level you can be develop to.
- b) Some of the solutions are tailor made to the individual. You have to brain-storm. You also need to be creative in coming up with the solution. You have to work with the athlete, their school and employers to find the solutions. And it needs to be customised. There's no one-size-fits-all solution.
- c) Perhaps SportsSG can step in and 'educate' the companies. Maybe even the government can step in and give some tax rebates for employing athletes. The same like for employing seniors. These are some of the things that we can think of. This can be a nation-wide push.
- d) Having direct partnership with the national sports association

- e) Allow students to try multiple sports for lower secondary and specialize when they are in Secondary 3 onwards.
- f) Training by coaches who are passionate and highly skilled in leading students towards national glory.
- g) Instill Comrade spirit and national pride into the student-athletes, helping them to understand that they are on a mission for national glory as they develop themselves through sports.

4.5 Other issues

Other issues, which was not covered by the research questions, surfaced during the interviews with the practitioners like the duplication of support offered by different institutions.

P1 also brought up the issue of non-monetary incentives which would help athletes by providing other forms of support by sharing, “Yeah ... that’s where Spore has a lot to learn ... from Korea, Japan also. In terms of these markets – they are so much more advanced in terms of support for the athletes. We cannot I think in Spore ... a lot of times we try to use money to solve a lot of things. But money will always run out. In the past – money to NSAs; money to athletes, But how long can you keep giving money? We must go a little deeper into intangible support for the athletes.”

The research findings from this case study conclude that all the super-ordinate themes are inter-related. Intangible support like organizational sport career transition programs is essential to the long-term well being of the athletes, so that they can cope better with the various transitions that they face.

Table 9. Analysis of Results

THEME	SUB-THEME	FINDINGS
Social-cultural context, cultural legacy	<p>Early dropout from sports due to</p> <p>Personal issues</p> <p>Other stakeholders</p> <p>Organizations</p> <p>Macro environment (eg. Emphasis on academics, Mandatory military conscription for male athletes)</p> <p>Mindset of stakeholders (parents, coaches, significant others)</p>	<p>Disappointment. Trying to get into the good independent secondary schools via Direct-School-Admission</p> <p>Negative perspectives of their abilities from key stakeholders, eg coaches and parents</p> <p>Education progression (key exams eg ‘O’ and ‘A’ exams)</p> <p>Academic performance lead to scholarships and better career prospects. No future in pursuit of sports excellence</p>
Organizational sports career transition intervention programs	Partnerships with schools and companies to establish athlete-friendly network via spexEducation & spexBusiness.	<p>Pro-active</p> <p>Pre-planning</p> <p>Ownership of decisions made by the athletes</p>

Collaboration with multi parties (eg. Relevant personnel to apply for overseas leave for working athletes/ deferment of studies or application for training leave for student-athletes, and application for SAF Sportsman Scheme

Roles played by the practitioners
As a mentor and social support
Guidance on education and career
Scholarship applications (how to write the application letter, etc)

Organizing life-skills workshops

Flexibility

Time-off for training and competitions

Possibility to take supplementary paper or exams while overseas in competitions

Loss of interest / injury/ burnout

National service

Funding

Favoritism by coaches/ NSA personnel

Eligibility to support programs based on referral from NSA or coaches; not all athletes know how to access the service

Balance with other aspects of life. Most athletes are on dual career and some even triple career (work/ study part time/ train)

Time and stress management are key factors

<p>Holistic Athlete Development</p>	<p>Deselection Opportunities for representation</p> <p>Communications with other peers. For example - For working athletes, skills on how to cope in the working environment</p> <p>Balance with other aspects of life</p> <p>Short term planning</p> <p>Long term planning</p> <p>Mandatory military conscription affects daily training</p>	<p>Funding for only one main squad, due to limited budget. Even jerseys are limited.</p> <p>Yet for youth, some are late bloomers and their talents are not recognized. (lost talents)</p> <p>Early specialization. No opportunities to try other sports (invested too much time and effort in one sport to find that it all comes to naught)</p> <p>Problems with institutionalization of sports (more conflicts among peers coz they are fighting for the same things)</p> <p>Coaches call the shots</p> <p>NSA politics and unclear selection policies</p> <p>No time for social life. Playing catch-up all the time, especially for studies. Need help from classmates to take notes and update them.</p> <p>Need help with projects when they are absent</p> <p>Feeling left behind (peers have already worked for a few years, established in career, getting married, have children)</p> <p>Losing out on skills and representation opportunities.</p> <p>Have to drop out from national team</p>
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	<p>Injuries</p> <p>Need to convince significant others, eg parents, boyfriend/ girlfriend why their 'pursuit of excellence' is necessary</p>	<p>Too much sacrifices – paying from own pocket for travel, etc</p>
Sports ecosystem	<p>Small population, limited talent base</p> <p>Mandatory military conscription with 22 months of national service</p> <p>Other Issues that surfaced</p>	<p>Foreign students did not qualify for national squad within time frame</p> <p>Only 1 main squad. No room for new comers (affected peak performance)</p> <p>Affected athletes' peak performance</p> <p>Ad-hoc services/ outreach by sports organizations</p> <p>Duplication of services between Athletes' Commission and SSI</p> <p>Issue of Continuity- Who's keeping track of the athletes' progress? No continuation after they leave the institution</p> <p>Non-monetary incentives</p>

4.5 Implications

To summarize, the sport career transition organizational intervention approach in Singapore can be classified as proactive planning, with provision of career counselling and career planning and life-skills workshops on a regular basis to enhance the personal development of the athletes. It can also be reactive, by providing emotional and social support, and support identity reformation for the retired athletes.

Since pre-transition planning and the degree of life skill development are positively related to healthy career transitions, proactive early intervention is a ‘prevention is better than cure’ approach. However, in the literature, there is no evidence to predict when athletes initiate their career transition process.

Although the conceptual models in the study area (Taylor & Ogilvie, 1994; P. Wylleman et al., 2004) provide exploratory variables which help to predict the quality of athletes’ career transitions, none of the existing models contains explanation of athletes’ retirement decision-making process. Examining the later stages of athletic career and retirement decision-making process might help to identify when athletes’ need support and what process they go through during the process.

The views of participants in this study emphasize challenges around lines of communication, organizational structure and the psychoeducation

process with elite athletes. We recommend that other sport organizations like the NSAs strategically build into their athlete development plans approaches to increase psycho-education to help elite athletes balance their sport and other life commitments.

It carries the implications for different sectors responsible for providing services, giving support, and collaboration, namely policy makers, sports training institutes, secondary and tertiary institutions, school principals, corporate companies and employers, as well as parents and Physical Education teachers. All the different stakeholders have to work together to provide a seamless approach to nurture a sporting champion become a champion in life too.

Pertaining to the issue of youth dropout from sports, all the four Asian countries face similar issues, as evidenced by the extant research. Furthermore, males in Singapore, South Korea and Taiwan (system changed to four months basic military training from 2018) (R. Chan, 2012) will have to go through mandatory military conscription. This has been attributed to hinder athletes' progress in sports in Singapore (Low, 2018) and South Korea (M. hyung Lee, 2018; Robertson, 2018).

Olympic champion Schooling's recent success in 2016 Rio Olympics has been attributed to his successful deferment of 'National Service', and he

was the first athlete in Singapore to pave the way before another younger swimmer Quah Zhengwen could follow suit (“7 things we all can learn from Joseph Schooling’s Olympic win - Alvinology,” 2016; Sim, 2016) .

The study also surfaced new issues which was not part of the research questions, like the support services being provided on an ad-hoc basis, and duplication of resources. Cause for concern has been expressed about the continuity in the current programs, such that the young athletes who have left the school system can continue to be monitored for their sporting progress, and working with the athletes on a long-term basis

The practitioners also expressed optimism that change of mindset for parents/ employers/ athletes themselves on embracing sports as a possible career will take time, but positive role models and more success stories will help to pave the path forward.

The next chapter summarizes the research findings, and shares the limitations faced by the researcher, as well as the future research directions in this evolving field of research.

Chapter 5. Conclusion

5.1 Discussion & Limitations

Career transition for elite athletes, whether it is in-sport transitions or out of sport transition, is a multi-faceted and complex phenomenon. The athletes' career is influenced by the socio-cultural context, so researchers and practitioners should also apply the cultural praxis in designing organizational intervention programs. The athlete's individual characteristics, situational circumstances surrounding the transition, and the proximal context all play a role in the adaptation process.

Research in the field of athlete career transitions has grown tremendously over the years, driven by the sport psychologists themselves who are also practitioners who supply psychological services to retiring/retired athletes. However, there are scant research done on sport career organizational intervention programs in Asia, or those that measure the effectiveness of such programs (Anderson & Morris, 2000; P. Wylleman et al., 2004).

Based on Taylor & Ogilvie (1998)'s Conceptual Model of Adaptation to Retirement among Athletes, the interventions happen at the cognitive, emotional, behavioral, social and organizational level. It would be difficult to

measure the effectiveness of such interventions since they occur at different stages of transitions, and at five different levels.

Given the limitation of time and resources, this paper focuses solely on the sports management aspect by examining the sport career organizational intervention programs in Asia's Four Tigers to understand the contextual factors shaping the kind of intervention programs currently being implemented. Thus the scope of discussion could be limited due to the nature of the qualitative review.

Research findings from cross-cultural studies in other areas of sport psychology indicated that Asian and Western athletes showed differences in using coping strategies and developing their sense of self (Anshell et al., 1997; Bhalla & Weiss, 2010). With regards to an individual's decision-making process, Briley et al., (2000) and Mau (2000) revealed that individuals from different cultural background had different decision-making styles.

Since the majority of studies in the study area was conducted with Western samples, there is very little evidence related to cultural influences and sport contexts on athletes' career transitions in Asia. Therefore, examining Singaporean athletes' career transition experiences from the organizational perspective might shed some light on the influence of cultural

diversity, and sport contexts on their decisions and the quality of post-sport life adjustment.

The present investigation has several limitations. The study sample was relatively small, as there are only limited personnel who are involved as practitioners. Since the practitioners are staff of the national governing bodies, sports institutes/ sports schools, they focus on active athletes' performance enhancement. However, when the athletes actually retire, they may not be eligible for the support anymore since they are no longer 'carded' or team members, and may even drop off the radar. Furthermore, professional athletes on the circuit like the golfers, footballers, etc do not come under the radar for the support programs as they are not 'carded', yet they may be the people who need the most support.

With limited budget and restricted headcount, some organizations may not see the need to have specialized personnel to operate the athletes' support programs since there is no strong evidence that investing in such resources can bring about more medals or performance enhancement (De Bosscher et al., 2015).

Hence, the continuity of the support programs also depends on the practitioners, budget, sport policy and political/ leadership directives. When the practitioners or leaders leave the organization, as shown by the Taiwan

example that was not able to continue the ACP program with Adecco, the program has come to a halt.

Based on Torraco (1997)'s research, he believes that case studies, compared to other methods, allows the researcher to focus specifically on a phenomenon of interest, and it offers the greatest potential for revealing richness, holism and complexity in contemporary events.

The assumption is that the case study on Singapore provides a grounded assessment of context, and provided sufficient details necessary for the judgement of transferability. It is assumed that with the researcher's tacit knowledge, a holistic and lifelike description can be derived.

However, it may be difficult to ensure external validity, whereby this case can be generalized beyond itself into the wider situation. As the researcher is involved in this area of work, there may be a high risk of researcher bias (Yin, 2004). While these limitations may be interpreted as a lack of objectivity, rigor or even precision, this does not mean that such limitations cannot be overcome (Yin, 1989, 1994; Perry, 1998).

5.2 Recommendations for future research

Future research within the realm of athletes' career and education, especially pertaining to organizational intervention strategies, is vast and involves pristine territory. The work done by the sports organizations in Asia

have not received the attention by North American or European researchers when compared to the studies in those regions, even though Asia comprises one-third of the world's population and is showing itself to be a force to be reckoned with in the sporting arena.

For future research directions, there is the need to extend the available knowledge on the characteristics of specific transitions (e.g. non-normative transitions, in-career transitions), on the influence of sport-, gender- or cultural-specific factors on the quality of the transitional process, as well as on the user-friendliness and applicability of sports career transition interventions and programs across the range of athletes. Future longitudinal research into the impact of the sport career intervention organizational programs on the athletes in these countries would also elucidate whether such programs are successful in reaching their objectives.

Another area for future research is the career transitions for foreign sports labour, which has become prevalent since the 1980s. According to Agergaard & Ryba (2014), geographical mobility for sports talents, whose temporary mobility or permanent migration to new work places can be crucial for an individual's career trajectory. Such transnational athletes are affected by cultural and psychological adaptations, as well as transnational belonging in their newly adopted country. For them, adaptation to and termination of

this mobile career can become crucial turning phases in an individual's life trajectory.

In Singapore's case, the table tennis players that wore the nation's colors at the 2008, 2012 and 2016 Summer Olympics are born in China, and became naturalized citizens when they came to Singapore in their teens and early 20s and were given fast-track citizenship. The Foreign Sports Talent (FST) scheme was started in 1993 by the Singapore Table Tennis Association (STTA) to boost the standards of local athletes and augment the existing talent pool (Brooke, 2014). Other sports like football and badminton have also recruited foreign players to boost the squad (Wang, 2018).

For South Korea, the most recent case was the men's ice hockey team for 2018 Pyeongchang Winter Olympics that comprises seven Canadians that enjoyed dual-citizenship status, although South Korea do not have a policy for dual-citizenship in the past (Semple, 2018).

These foreign-born and bred athletes may face different issues in their adaptation to life in their new 'homeland', and especially pertaining to post-sports career transitions. In Singapore's case, the debate on FST scheme has continued as it was found that the majority of the FSTs do not settle down in Singapore after their professional sports contracts are over. Hence, more research into the socio-cultural transitions would be recommended.

To-date, Kuettel et al. (2017)'s cross-cultural comparative study on the transition experience out of elite sports for Switzerland, Denmark and Poland athletes, as well as D. Alfermann et al. (2004)'s study on Russian, Lithuanian and German athletes covered European countries that differed on several macro- and meso dimensions.

More research needs to be done to gain deeper insights whether these dimensions behave as resources or barriers for the transition and how they influence athletes' transitional characteristics. This current study on Asia's Four Tigers with similar macro factors and slight variations in the various support programs for elite athletes' career and education elucidates the issue of national identity, which also shapes the sport policies and culture.

5.3 Conclusion

In a nutshell, researchers have suggested the need for sport career transition organizational intervention programs to support athletes' healthy career transitions, as it is the obligations of the national sports bodies to look after the welfare of the athletes. More sport organizations in the world see the need to provide such services, as evidenced by the Korean Sport & Olympic Committee's 1st IOC ACP workshop on 23 November 2018 for its athletes and officials/ coaches, who used to focus only on full-time training.

The researcher compared the macro indicators of population base and GDP per capita, as well as the financial rewards for Olympic medals of Asia's Four Tigers (Leung, 2016). Based on the number of Olympic medals won by Singapore thus far, it is an indication that the relative wealth of a nation does not lead to sporting success. However, the sporting environment and culture (contextual factors) play a larger role in changing mindsets and paving the way ahead for a small nation with a small population base and with human resource as its only resource, to continue in its pursuit of sporting success.

Success at elite level sport stems from myriad factors that vary based on the socio-cultural and political economic context of the country that the athlete lives in. Intrinsic and extrinsic factors work in complex synchrony to ultimately determine or undermine an athlete's success in sport.

Therefore, stakeholders in sport need to acknowledge and accommodate the complexity of these factors in determining the athlete's level of success in youth and in adulthood, instead of subscribing to pre-conceived notions. There is a strong need to adopt an integrated approach and understand the importance of various contributory influences that optimize athlete development in youth (Suppiah et al., 2015).

The SPLISS 2.0 research sought to answer the question of which policy factors lead to elite sporting success. The topline findings from the

report discovered that most of the nine pillars (see Fig. 1) correlate positively with success for both summer and winter sports. Pillar 1 (financial support), pillar 2 (structure and organization), pillar 7 (coaches) and pillar 9 (scientific research) are the most significant for sporting success (De Bosscher et al., 2015).

It was found that pillar 5 (athlete support) needs stronger development, as more athletes seek to become professional athletes and the countries invest more in their elite sport policy. However, this does not lead to competitive advantage as other developed nations also invest significantly in the provision of athlete support, as recommended by world bodies IOC, IPC and legislated by the EU.

While the report from SPLISS 1.0 found that investment in pillar 1 (financial support) meant more money in equates to more medal out, the reports from SPLISS 2.0 discounted that by indicating that there was diminishing returns to scale (De Bosscher et al., 2008a). Most nations had to invest in the elite sports system just to maintain a consistent level of success. More money invested did not equal to more medals out (De Bosscher et al., 2015).

Only time will tell whether the cash incentives provided by Hong Kong, Taiwan and Singapore lead to more Olympic successes. Therefore

there is no generic blueprint for sporting success. The SPLISS 2.0 research found that different nations do things differently based on the unique situation and culture that a country is placed in, yet they managed to achieve success by utilizing the nine pillars in various configurations.

In reality, monetary incentives alone cannot solve all the problems (Maier et al., 2016), as echoed by the practitioners who participated in the research. Athletes are regarded as important social capital that can value-add to the social fabric of the society. The case study of Singapore provides an interesting example of how a small nation uses sport as a rallying call, for Singaporeans to have a healthier and better life through the impactful experience of sports, not just for achieving podium success. Singapore's Vision 2030 tagline is 'Live Better through Sports' where sport helps people to live healthier and happier lives, and also imparts skills sets necessary for achieving success and upward mobility ("MCCY - Vision 2030," n.d.).

With a small native population of 3.4 million Singapore citizens, of which 817,600 people are currently below the age of 20 ("Statistics Singapore - Population and Population Structure - Latest Data," 2018), the sports talent pool is constrained by its small population, as only Singapore citizens are allowed to represent Singapore (Brooke, 2014).

Hence the policies crafted by the government agencies, and mindset of the key stakeholders like parents, coaches, educational institutes are shaped by the cultural context that does not put a premium on the pursuit of sports excellence. By sharing more success stories of athletes who achieved more by exceling in sports and other aspects of life via the media, and smoothing out the hurdles that lay in their pursuits of excellence, it can gain the mindshare of the key stakeholders to support the athletes in their pursuit of national glory.

The study revealed the importance of adopting a holistic perspective when investigating athletes' dual career development. The findings deepen the knowledge of sport career transitions, which is multi-faceted and unstable, and how organizations play a crucial role in the intervention strategies for elite athletes which is customized to their individual needs. The organizational culture, which is affected by the macro-sociological environment and cultural context, shapes the mindset of the policy makers, practitioners, key stakeholders and athletes themselves. Hence how the athletes embark on their sports and transition journey is affected by the environment and culture, in addition to their personal attributes.

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Appendix A



DREAM
TOGETHER
MASTER
Global Sport Management
Graduate Program



SEOUL
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Informed Consent Form

Date:

Research: Programs for Elite Athletes Career and Education in Asia's Four Tigers: A case study of sport career transition organizational intervention practices in Singapore

Researcher: Merey Tan, Masters in Global Sports Management student

Seoul National University

Dream Together Master, Division of Global Sport

Management Talent Development

1, Gwanak-ro, Gwanak-gu, Building 153, Room 316

Seoul, Republic of Korea 08826

Purpose of research:

- (i) To examine the programs for elite athletes' career and education support in an Asian context, especially for developed small nations
- (ii) To investigate sport career transition organizational intervention programs using Singapore as a case study

What you will be asked to do in this research: You will be required to provide details of your role in the organisation and the work that you do with athletes. You will also be asked how your organisation is supporting the athletes, especially if they are studying and/ or working while training as an elite athlete.

An elite athlete is defined as an individual or as part of a team, represents the country professionally for sports or is training to represent the country at the four Major Games of the Olympics, Commonwealth and Asian Games, Southeast Asian (SEA) Games as well as World Championships.

The interview will be recorded by an audio-recorder. All collected data will be only used for the master's thesis of the researcher. It will take approximately 30-60 minutes of your time.

Risks and Discomfort: This interview does not involve any risks or discomfort resulting from your participation in the research.

Benefits of the research:

It helps to gather information about the best practices of the programs for athletes' career and education support.

It helps to determine future research directions for small Asian nations to utilise the resources strategically.

Voluntary Participation: Your participation in the study is completely voluntary, and you may choose to stop participating at any time. Your decision not to volunteer will not influence the research, the nature of the ongoing relationship you may have with the researcher or study staff, and the nature of your relationship with the Seoul National University, either now or in the future.

Withdrawal from the research: You can stop participating in the research at any time, for any reason, if you so decide. If your decision to stop participating, or refusal to answer particular questions, will not affect any ongoing relationship you may have with the researcher or study staff, and the nature of your relationship with the Seoul National University or any other group associated with this project.

In the event of withdrawal, all associated data collected will be immediately destroyed wherever possible. After the interviews are transcribed, the researcher will do member checking with you. After member checking, you can no longer withdraw your data from the study.

Confidentiality: All information you supply during the research will be held in confidence, and unless you specifically indicate your consent, your name will not appear in any report or publication of the research. You do not even need to write your name on the questionnaire. Your data will be safely stored with the researcher.

Questions about the research? If you have questions about the research in general or about your role in the study, please feel free to contact Ms Merey

Legal rights and Signatures:

I, _____ (name) consent to participate in the research on programs for elite athletes' career and education conducted by Merey Tan. I have understood the nature of this project and wish to participate. I am not waiving any of my legal rights by signing this form. My signature below indicates my consent.

Signature _____

Date: _____

Name of Participant:

Signature _____

Date: _____

Name of Researcher: Merey Tan

Appendix B



DREAM
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Interview Questions

About your profile

Q1 : What is your organization and your current role at the organization ?

Q2 : Can you describe what you do at the organization ?

Q3 : How long have you been involved in this role ?

- 0 to 1 year
- 1 to 2 years
- 2 to 3 years
- More than 3 years

Q4 : How often do you provide support services to elite athletes on a monthly basis?

- 0 to 5 sessions
- 5 to 10 sessions
- 10 to 15 sessions
- > 15 sessions

Q5 : In a month, how many athletes have proactively approached you for support regarding their education and career issues? How many support sessions and/or referrals to the relevant personnel have been arranged over the last three months?

- 0 to 2
- 2 to 4
- 4 to 6
- Above 6

About the existing athlete career transition intervention programs

Q6 : Which support services do the elite athletes require?

Q7 : What type of solution/support have you provided?

Q8 : Have the athletes given you their feedback on your support/solution? If so, was it positive or negative?

Q9 : Do you know of any plans implemented by the Singapore Sports Institute (SSI)/ National Youth Sports Institute (NYSI)/ Singapore National Olympic Council (SNOC) regarding transition issues within its existing support service programme? For example, to assist athletes for their transitions into the senior squad or transition out of sports?

About the environment and other contextual factors affecting the junior-to-senior squad transitions

Q10 : Do you think that the organizations properly support student athletes or athletes planning for their retirement in adapting to their lives as regular students and to their non-athletic careers ?

Q11 : Research has shown that nearly 90% of the youth athletes drop out from the pursuit of elite sport before they make the transition to senior squad. What are the possible contributing factors causing them to drop out?

Q12 : How do you think the environment and other social factors affect the youth athletes ? What are the main issues that youth athletes face?

About dual-careers of the athletes

Q13 : Why do you think the athletes choose to pursue the dual-career pathway despite the challenges that they face ?

Q14 : Based on your experience, what can be done to support more youth athletes so that they can transit to the senior squad?

국문 초록

아시아 4대 엘리트 선수 경력 및 지원 프로그램:

싱가폴 스포츠 경력전환 조직 개입 사례연구

Merey Tan

서울대학교 대학원

체육교육과

글로벌 스포츠 매니지먼트

이 연구의 목적은 싱가포르 스포츠 시스템을 위한 모범 사례 연구로서 아시아의 포 타이거즈에서 선수들의 스포츠 경력에 영향을 미치는 문화적, 거시적 요인을 정성적으로 검토하는 것이다. 연구의 목적을 달성하기 위해 현재 부족한 아시아 선진국인 홍콩, 대만, 한국, 싱가포르를 선정하여 운동선수의 인수 연구와 조직 개입의 맥락 요인을 보았다.

선수 경력과 교육을 지원하는 중재 전략을 제공하는 스포츠 관련 단체의 엘리트 선수에게 조언하는 7명의 실무자를 인터뷰했다. 결과는 조직 발명 프로그램과 같은 무형의 지원은 선수들이 직면하는 다양한 변화에 더 잘 대처할 수 있도록 장기적인 복지에 필수적이라는 것을 보여준다. 한정된 인재 풀을 가진 싱가포르와 같은 소규모 국가의 경우 엘리트 스포츠의 추구를 위한 기회비용은 높은 가격으로 책정되기 때문에, 이중경력 경로는 정부와 국가적인 스포츠 단체들에 의해 지지한다. 이는 아시아 타이거즈의 스포츠 경력 조직 개입 프로그램 영역에 대한 연구는 또한 국가적인 스포츠 시스템의 영향, 이중 직업 기회, 그리고 선수 전환에 대한 문화적 측면에 대한 더 깊은 통찰력을 제공할 수 있다.

주요어 : 스포츠 조직, 경력, 엘리트 스포츠

학번: 2017-29515